

Telehealth in a Post Pandemic World

Thursday, December 3, 2020

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NO. 51

This issue brief is made possible by generous funding from Blue Cross Blue Shield of Massachusetts and Baystate Health. It is also so-sponsored by the Brandeis/Harvard NIDA Center to Improve System Performance of Substance Use Disorder Treatment.

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Acknowledgements

We would like to acknowledge the health care leaders who are managing the public health emergency in Massachusetts and generously agreed to be interviewed. We were inspired by the dedication, devotion, and ingenuity shown in these interviews. We would also like to thank the organizations who reviewed the issue brief and/or who were interviewed for sharing information about their response to the COVID-19 pandemic. These organizations include: The Executive Office of Health and Human Resources, MassHealth, Massachusetts League of Community Health Centers, Cambridge Health Alliance, Community Care Cooperative, Health Care For All, National Alliance on Mental Illness MA Massachusetts Association of Health Plans, Massachusetts Health and Hospital Association, Massachusetts Health Quality Partners, American Telemedicine Association, Baystate Health, Boston Children's Hospital, Blue Cross Blue Shield MA, and the Brookline Center for Community Mental Health. We would like to thank Chris Hager, Audrey Shelto, Amanda Cassel Kraft, Dr. Connie Horgan, Elizabeth Murphy, Michael Caljouw and several anonymous colleagues for reviewing and editing the Brief. We would also like to thank Dr. James Hunt, President and CEO of the Massachusetts League of Community Health Centers. We like to extend special thanks to Secretary Marylou Sudders, Philip W. Johnston, Dr. Haiden A. Huskamp, Barbra G. Rabson, Dr. Mark Keroack, Dr. Kenneth Duckworth, Dr. Kiame Mahaniah, and Lora M. Pellegrini for participating as speakers in the forum and also for reviewing the policy brief. Lastly, we would like to thank the leadership and financial support of Blue Cross Blue Shield of Massachusetts, Baystate Health, and our cosponsor, the Brandeis-Harvard NIDA Center to Improve System Performance of Substance Use Disorder.

Executive Summary

The call for social distancing during the COVID-19 pandemic has dramatically increased demand for telehealth tools that facilitate remote care delivery. Estimates in this study show telehealth increasing well over 3000 percent from February to March 2020. The objective of this brief is to understand the impact of changes to telehealth policy that occurred during the COVID-19 pandemic to inform future decisions about telehealth policy after a vaccine is made widely available. This policy brief is divided into two parts; first we outline the policy shifts that occurred at the federal level and at the state level in Massachusetts to facilitate the ramp up of remote care delivery. Second, we present the findings from a set of qualitative interviews with leadership in payer, provider, and advocacy organizations in Massachusetts to understand the impact of the new policy landscape.

At the federal level, Medicare declared that care delivered over telehealth platforms be reimbursed at the same level as in-person visits (CARES Act, 2020). Centers for Medicare & Medicaid Services (CMS) temporarily lifted requirements that providers be licensed in the state that they provide services (Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak, 2020). The Office of Civil Rights temporarily expanded the list of telehealth technologies that are considered HIPAA compliant (Rights (OCR), 2020). Many of these changes were reflected at the state level. MassHealth, Massachusetts' Medicaid program, declared that all telehealth services will be reimbursed at the level of in-person services for the duration of the public health emergency (Tsai, 2020a). MassHealth also temporarily lifted originating site requirements, allowing patients to receive care in their homes (Tsai, 2020a). Governor Charlie Baker subsequently released an executive order that extended these changes to all payers (Order Expanding Access to Telehealth Services and to Protect Health Care Providers, 2020).

Telehealth use spiked in the Commonwealth in response to these policy shifts. Managers explained how their respective organizations shifted from having little to no telehealth visits prior to the COVID-19 pandemic, to having telehealth visits make up the majority of outpatient visits in a matter of weeks. The rapid adoption of video telehealth applications was facilitated by the temporary expansion of the list of technologies that are HIPAA compliant, which made it possible for patients to conduct their health care visit over their favorite video chat device. However, many patients did not have access to internet and video devices, which needs to be addressed to avoid future disparities in care. Audio-only visits, generally delivered over the phone, increased access for patients that do not have stable internet or necessary

technology, and gave other patients the flexibility to take their appointment in a place that is private and comfortable. Text-based messaging allowed providers to manage more cases per hour, but was often associated with poor quality of communication. Remote patient monitoring was observed as being intuitive and promising, but challenging to operationalize. Together, these technologies increased the timeliness of primary care, and gave patients access to specialists that would otherwise be outside of their travel range. That said, these technologies were found to be unsuitable for many clinical applications, and some visits had to be repeated in-person.

Providers appreciated the suspension of originating site requirements which allowed them to treat patients in their homes, as well as the ability to practice across state lines, which allowed them to treat patients that leave the state for travel or business. Providers also praised the development of "virtual check-in" codes by CMS that allowed them to have brief, timely interactions with patients. While these changes to reimbursement have facilitated telehealth use in the short term, providers, payers, and patient advocacy groups expressed a desire to move toward a value-based payment model to foster telehealth innovation without having to evolve reimbursement policy simultaneously.

We found alignment between payers, providers, and patient advocacy organizations in several areas, which informed the following policy recommendations.

- 1. Commission and review evidence-based studies on the efficacy of telehealth. We are still uncertain about what specific conditions and circumstances create the most effective and efficient balance of telehealth and in person visits. This research is essential to inform future decisions about telehealth policy.
- 2. Foster and continue efforts to move towards value-based payment models. This will allow organizations to innovate new ways to deliver high quality care for a lower cost.
- 3. Make reimbursement for audio-only telehealth visits a permanent option in addition to video where appropriate based on study of efficacy. Patients often call from outside their home to find privacy. Other patients do not have access to reliable internet. This needs to be a patient centered choice.
- 4. Allocate resources to overcome disparities in access to telehealth technologies. All populations need to have access to the internet and telehealth technologies to marshal the full capacity of these resources and mitigate differences in health care delivery. Internet enabled technologies like remote patient monitoring, patient portals, and videoconferencing have the capacity to increase the efficiency and effectiveness of care.

- 5. Enter into the interstate licensing compact. Having Massachusetts enter the compact gives providers the ability to serve patients that leave the state for business or vacation. It will also give Boston's world class specialists the ability to treat rare disease cases all over the country.
- 6. End originating site requirements. Patients need to be able to access telehealth services in their homes or wherever else is convenient, comfortable, and private for them.
- 7. Educate providers about payable codes for covered telehealth services. There is a lot of confusion about billing and providers are not doing their own research.
- 8. Educate providers about reimbursement codes for pharmacists and nurses. Lack of clarity surrounding reimbursement for telehealth services rendered by non-physician health care providers is causing physicians to take on more responsibility for remote care than they have for in-person care.
- 9. Develop HIPAA compliant software services that are compatible with widely used technologies. Services need to be independent of portals, easy for patients to use, and interoperable with familiar phone applications like Apple's iMessage or FaceTime.
- 10. **Develop applications that facilitate group engagement in care.** This represents an opportunity for software development to help providers to "tag in" nurses and medical assistants during the visit, and further work with complex care workers, pharmacists, etc. to give the patient wraparound care.

Introduction

The COVID-19 pandemic drastically changed how patients receive health care services, with a rapid shift from in person care to care delivered via telehealth. On March 10, 2020, Governor Charlie Baker declared COVID-19 a public health emergency (Governor Charlie Baker, 2020). Since then, a number of state and federal policies were enacted to support the adoption of telehealth to help reduce the spread of the virus. This issue brief outlines these policy changes and examines how telehealth delivery and use shifted throughout the public health emergency. Our analysis is derived from a detailed literature review and qualitative interviews of health care stakeholders from throughout the Commonwealth. We conclude with policy suggestions to promote effective and efficient telehealth use in Massachusetts postpandemic.

Telehealth overview

Telehealth refers to medical information that is exchanged using an electronic platform to improve patient health. This brief focuses on the exchange of medical information between providers and patients. Specific modes of telehealth delivery to patients include videoconferencing, audio-only communication, secure messaging, and remote patient monitoring, all of which can be used to provide care for chronic health conditions, medication management, mental health counseling, post-discharge follow up, and more (Tuckson et al., 2017).

The impact of COVID-19 on telehealth use is staggering. In Massachusetts, claims analyses from Blue Cross Blue Shield of Massachusetts showed a 3,600% increase in telehealth claims in March 2020 from February 2020, and a 5,100% increase from the monthly average for March 2019 compared to March 2020 (Blue Cross Blue Shield of Massachusetts Telehealth Claims Skyrocket During Coronavirus Pandemic, 2020). Prior to the pandemic, telehealth was growing but from a low base level. Commercial telehealth visits increased from 2.0 telehealth visits per 1000 members to 4.0 telehealth visits per 1000 members from 2015 to 2017 (HPC DataPoints, Issue 16, 2020). Pre pandemic telehealth visits skewed younger (average age 35) and female (65 percent) (HPC DataPoints, Issue 16, 2020).

Mental health visits contributed substantially to telehealth use in Massachusetts before COVID-19.¹ In 2017, 63% of all telehealth visits for commercially insured individuals in Massachusetts were for

¹ This is not inclusive of behavioral health visits for substance use disorder.

diagnoses related to mental health, including generalized anxiety disorder, which accounted for 23% of all visits (HPC DataPoints, Issue 16, 2020). From 2005 – 2017, telehealth use for mental health care increased faster across the United States in counties with no psychiatrists (Barnett et al., 2018). Blue Cross and Blue Shield of Massachusetts noted that a majority of early 2020 telehealth claims were for behavioral health visits from mid-March to the end of April (Becker, 2020). Overall outpatient mental health and substance use disorder visits increased by 9% during the COVID-19 surge compared to prepandemic 2020 (Yang et al., 2020). By contrast, outpatient non-behavioral health appointments decreased by 38% (Yang et al., 2020).

Prior to COVID-19, Massachusetts did not mandate coverage of telehealth, which contributed to low telehealth use in Massachusetts (Augenstein et al., 2020). The rapid change in telehealth policy enabled exponential growth and facilitated access to care.

Barriers to Accessing Telehealth

There are many factors that impact access to telehealth. Some of the most pressing factors are the social determinants of health, which are the non-biological factors that impact one's health, including socioeconomic status, access to health care services, education level, race, ethnicity, and where someone lives. Social determinants of health have been found to account for 47% of a person's health, **while health** behaviors, clinical care, and the environment that they live in account for 34%, 16%, and 3%, respectively (Hood et al., 2016). According to a report from the Blue Cross Blue Shield of Massachusetts Foundation, telehealth can mitigate some of the adverse impacts of the social determinants of health by reducing costs of transportation, taking time off work, or finding childcare (Augenstein et al., 2020). However, access to telehealth can be inhibited by social determinants as they impact health literacy, access to technology, and costs associated with mobile/internet data plans. According to an article in General Hospital Psychiatry, outpatient behavioral health appointments were found to be lower for Medicaid and Medicare enrollees (-19% and -21% respectively), as well as Hispanics (-33%) and Non-Hispanic blacks (-25%) compared to 2020 pre-pandemic (Yang et al., 2020). According to MassHealth there was a dip in behavioral health utilization in April and May, but utilization recovered by June and has been above historical levels since summer (Manager at MassHealth, personal communication, November 17, 2020).

Current research suggests that computer literacy and internet access are significant factors in accessing telehealth (Bailey et al., 2015; Anthony et al., 2018). Inadequate broadband coverage is a barrier to accessing telehealth, particularly in Western Massachusetts (Section 706 Fixed Broadband Deployment

Map, 2012). Some 22% of Massachusetts households did not have broadband access in 2018. Additionally, not having a private space for a telehealth appointment could inhibit access to telehealth.

State Policy Changes

Massachusetts experienced one of the first COVID-19 outbreaks in the country. The Commonwealth took swift action to curb the spread of the virus and transition to telehealth to slow the spread of COVID-19. Specific actions include changes to MassHealth care delivery, reimbursement changes for all payers in Massachusetts, and changes to telehealth delivery.

Reimbursement Changes for All Payers

On March 15th, 2020, Governor Baker issued an executive order to expand access to telehealth services. Effective March 15th, 2020 through the end of the public health emergency, all payers must allow providers who are in-network to deliver services via telehealth that are medically appropriate. Further, they cannot limit which technologies can be used to deliver telehealth, and there must be payment parity between services delivered in person and via telehealth. Moreover, all telehealth services that relate to COVID-19 must be covered without additional cost-sharing for beneficiaries (Order Expanding Access to Telehealth Services and to Protect Health Care Providers, 2020).

This creates parity in payment between in person and telehealth visits and further states that requirements for telehealth cannot be more restrictive than those outlined in previous Medicaid Bulletins. It prohibits prior authorization for COVID-19-related telehealth services with in-network providers (Order Expanding Access to Telehealth Services and to Protect Health Care Providers, 2020). The Order applies to all payers in Massachusetts, not just MassHealth. This helps facilitate the documented exponential increase in telehealth use across the Commonwealth (Blue Cross Blue Shield of Massachusetts, Massachusetts Coronavirus Tracking Survey, 2020).

On March 16th, the Commissioner of Insurance released a Bulletin to provide additional information for private insurers on guidance for transitioning to telehealth services (Anderson, 2020). This Bulletin applies to fully insured accounts and for insurers who administer employer-sponsored non-insured health plans, the division expects carriers to encourage plan sponsors to take steps consistent with this. Specifically, insurers are expected to:

- Permit in-network providers to deliver covered services via telehealth,
- Reimburse telehealth services at the same rate as services delivered in-person,
- Communicate prevention, testing, and treatment options for COVID-19 to beneficiaries,
- Eliminate prior authorization for COVID-19 treatment delivered via telehealth, and
- Exclude cost-sharing for telehealth COVID-19 treatment.

This Bulletin and subsequent bulletins ensure that members with private insurance will receive the same benefits as those with MassHealth or Medicare for the duration of the state's public health emergency. In some cases, private insurers have gone beyond the scope of these state-issued protections. For example, Blue Cross Blue Shield of Massachusetts has waived any member cost sharing for all telehealth appointments, not just those related to COVID-19 care. It has further stated that it would reimburse all tele-behavioral health appointments at parity with in-office appointments beyond just the period of time of the public health emergency. Of note, this Bulletin does not apply to the self-insured market, although insurers in this market were encouraged to implement these same policies.

MassHealth Reimbursement

As of March 12th, 2020, MassHealth providers are able to deliver MassHealth-covered services through telehealth (Tsai, 2020a). State guidance allows telehealth to be delivered via any technology, and reimbursement for telehealth services is the same for services delivered in-person. Further, pharmacies can dispense up to a 90-day supply of medications, including behavioral health medications and schedule IV benzodiazepines and hypnotics, if requested by a patient or their prescribing health care provider (Tsai, 2020a) (Tsai, 2020b). MassHealth Managed Care Organizations (MCOs) are required to cover and reimburse any COVID-19 related expenses for their beneficiaries (Tsai, 2020c). Providers who deliver care via telehealth are allowed to bill MassHealth for a facility fee if permitted in their contract. This bulletin also provides specific guidance on billing for COVID-19 diagnostic laboratory services (Tsai, 2020b). In November 2020, MassHealth released Managed Care Entity Bulletin 21 and All Provider Bulletin 291, which clarified previous policies and extended expiration dates through march 31, 2021 (Tsai, 2020d) (Tsai, 2020e).

MassHealth created a COVID-19 remote patient monitoring bundled service to facilitate home monitoring for patients with COVID-19 who do not need hospital care but need close monitoring. This includes all medically necessary services for seven days of in-home monitoring for patients. Managed care entities are required to cover outpatient COVID-19 testing, evaluation, and treatment provided by out-of-network

providers through the duration of the emergency (Cassel Kraft, 2020b). Out-of-network follow up care must also be covered if an in-network option is not available. This remote patient monitoring program was subsequently extended to all MassHealth beneficiaries, regardless of coverage type through the end of the public health emergency (Cassel Kraft, 2020c).

Providers are allowed to disregard service code descriptions when submitting claims to note whether the service was delivered in-person or through telehealth. MassHealth providers no longer have to submit audio-only claims to Medicare for dually enrolled beneficiaries before receiving reimbursement from MassHealth (Cassel Kraft, 2020d). This Bulletin streamlines billing for MassHealth services and increases access to telehealth services for dually enrolled beneficiaries. It is set to expire at the end of the Massachusetts Public Health Emergency.

General MassHealth Changes

The state also made additional changes to its managed care program, its Accountable Care Program, and to programs providing long-term care services. MassHealth also created a temporary provider type to further increase access to telehealth services (Cassel Kraft, 2020a). Further, the Board of Registration in Medicine allowed providers to practice medicine via telehealth with patients that they had not previously had a face-to-face encounter with (Board of Registration in Medicine Approves Interim Policy on Telemedicine, 2020). The specifics of these Bulletins and policies are outlined in Appendix A.

Behavioral Health Policy Changes

The pandemic also led to significant behavioral telehealth policy changes in Massachusetts. The Massachusetts Department of Public Health Bureau of Substance Addiction Services released an Alert to clarify that DEA-registered Massachusetts providers may prescribe buprenorphine and other controlled substances to patients with whom they have not previously conducted an in-person medical evaluation, provided specific conditions are met via telehealth; this includes telephonic appointments (Calvert, 2020). This Alert is set to expire at the end of the Massachusetts Public Health Emergency. This policy increases access to buprenorphine and other medications for opioid use disorder for those experiencing opioid use disorder across the Commonwealth.

In January 2019, MassHealth allowed behavioral health services to be delivered via telehealth and ensured that they were reimbursed at the same rate as services delivered in-person (MassHealth

Managed Care Entity Bulletin 10, 2019). This policy allows providers to deliver behavioral health care via telehealth and receive payment commensurate with care delivered in person. While the policy noted there were no "geographic or facility restrictions" for receiving behavioral health care via telehealth, it did not explicitly state that the patient's home was a designated facility. This led to confusion for how these services could be billed. In response to this and with COVID-19, MassHealth released additional guidance to note that patient homes were eligible for billing behavioral health services that were delivered through telehealth (Tsai, 2020a).

Federal Policy Changes

The federal government response to telehealth use and reimbursement during COVID-19 is described below. Additional information on specific federal policies regarding telehealth use and Medicare reimbursement is included in Appendix B.

Medicare Reimbursement

Before COVID-19, telehealth for Medicare beneficiaries was restricted to rural areas and required patients to travel to a care setting to receive telehealth treatment. Medicare beneficiaries could also receive telehealth services for substance use disorder treatment, but not for general medical care. This changed with a federal Act that allowed Medicare to cover telehealth services for all beneficiaries, regardless of whether or not they are located in rural areas (Text - H.R.6074 - 116th Congress (2019-2020), 2020). This was especially significant for older adult populations and individuals with severe mental illness -- some of Massachusetts' most vulnerable and at-risk populations. These populations are often covered by Medicare or both Medicare and Medicaid plans. This Act also allowed Medicare to extend telehealth services to care that is delivered via telephone, but only if audio and video technologies are used (i.e. smartphones).

Additionally, Medicare reimbursement was expanded to include coverage for telehealth services at the same rate as in-person services without beneficiary copayments for all Medicare beneficiaries (Medicare Telemedicine Health Care Provider Fact Sheet | CMS, 2020), (CARES Act, 2020). On March 30th, CMS added over 80 different telehealth services to Medicare reimbursement, gave providers flexibility to waive copays for beneficiaries, expanded the list of eligible telehealth providers, granted coverage for

certain remote patient monitoring services, reduced limitations on the frequency of telehealth use for beneficiaries, and allowed telephonic and secured messaging services to be delivered to both new and previously established patients (42 CFR Parts 400, 405, 409, 410, 412, 414, 415, 417, 418, 421, 422, 423, 425, 440, 482, and 510, 2020).

The March 13th, 2020, COVID-19 National Emergency Declaration waived requirements for Medicare and Medicaid that out-of-state providers need to be licensed in the state that they are providing services when they are physically located in a different state (Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak, 2020). This means that providers licensed in one state can provide health care services to patients located in another state, including through telehealth. However, this guidance does not override state-specific licensing requirements. Massachusetts has since waived these restrictions for the duration of the crisis (Important Information Regarding Physician Licensure during the State of Emergency, n.d.).

On March 18th, 2020 the Office of Civil Rights stated that they will not penalize providers for HIPAA noncompliance with regulatory requirements (Rights (OCR), 2020). This expanded access to telehealth services, as providers cannot be penalized for conducting telehealth through non-HIPAA compliant applications, including Apple FaceTime, Facebook Messenger video chat, Google Hangouts video chat, Zoom, or Skype. This is particularly helpful for patients with low literacy in technology, as they do not need to download a specific app to communicate with their provider. Again, this is in effect just through the Federal Public Health Emergency.

Behavioral Health

Reimbursement for behavioral health services changed at the federal level. Effective March 31st, 2020, providers could initiate buprenorphine for opioid use disorder via telehealth, but only through the end of the Federal Public Health Emergency (Prevoznik, 2020). On April 2nd, 2020, CMS required Medicaid to provide guidance on options for states to receive federal reimbursement for services and treatment for substance use disorder provided to Medicaid beneficiaries delivered via telehealth (Lynch, 2020). This change is permanent. On April 30th, CMS allowed Opioid Treatment Programs (OTPs) to assess patients via telehealth, which greatly increased access to substance use disorder treatment. This Rule also increased reimbursement for these telehealth services and decreased the administrative burden for receiving reimbursement (42 CFR Parts 409, 410, 412, 413, 414, 415, 424, 425, 440, 483, 484, and 600, 2020).

Research findings

We interviewed 20 managers in different stakeholder groups including payers, payer advocacy groups, patient advocacy groups, hospital groups, community health centers, behavioral health centers, and provider advocacy groups. Interviews took place from June 1, 2020 through October 1, 2020. We used open ended questions to understand how telehealth technologies, clinical methods, and policies are evolving during the COVID-19 pandemic, and how they can be optimized in a post-pandemic world.

This section describes changes to telehealth use during the pandemic; how telehealth technologies function in this new environment; stakeholder perspectives on key issues; factors that impact efficient care delivery; policy levers that determine how telehealth will be used in the future; and the impact of the current policy landscape on behavioral health and social determinants of health. We conclude with ten policy recommendations that support efficient and equitable use of telehealth post-pandemic.

Changes in telehealth use

Ramp-up at beginning of the pandemic

Telehealth use spiked in response to the call for social distancing that is a hallmark of the COVID-19 pandemic. For many organizations, this transition seemingly happened overnight. For example, The Brookline Center for Community Mental Health reported zero telehealth visits prior to the pandemic and transitioned to almost exclusively remote care in just over three days. The Cambridge Health Alliance transitioned approximately 140 clinicians to provide remote care almost exclusively for all non-COVID conditions in one week. In the western part of the state, Baystate Health reported an increase from between 30 and 50 telehealth visits per month to approximately 1,500 visits per day. The Massachusetts Association of Health Plans noted that health plans in Massachusetts (MA) saw roughly 50% of medical visits and 70% of behavioral health visits remotely during the early months of the pandemic. In the words of a manager at MassHealth, "to see the provider world pivot so quickly... I just found it remarkable." A manager at Baystate Health observed that "It was the biggest change in all-service provision in American history."

Several research organizations relied on their existing technology infrastructure and previously established telehealth technologies, such as messaging with providers during the transition. Other

organizations did not have enough equipment or software licenses to support a transition to remote care. With grant support from the FCC, foundations, and other funders, Community Care Cooperative (C3) and the Massachusetts League of Community Health Centers (Mass. League) formed a consortium of 35 Federally Qualified Health Centers in the state. The Telehealth Consortium has helped underserved health centers like Lynn Community Health Center to purchase hardware and software to allow their approximately 250 employees to work remotely and conduct telehealth visits. C3 and Mass. League staff lended project management and coaching support to help facilitate the transitions and changes in workflows.

Telehealth use during the pandemic

Stakeholders documented the increased use of telehealth in the early stages of the pandemic, particularly as providers became more comfortable with the technology. One behavioral health clinic began with individual therapy via telehealth and progressed to group therapy and family therapy as clinicians became familiar with the software. A number of managers reported that telehealth use declined as hospitals and physician offices opened up and put in protective measures in the summer months. At Boston Children's Hospital, telehealth rapidly grew from roughly 1% to 85% of all outpatient visits in the first four weeks of the pandemic, as on site care was limited. As the hospital reopened onsite visits, virtual visits remained relatively steady at about 50% of current and prior year outpatient visits. They anticipate that telehealth visits will account for 50% of all visits until vaccines are widely available. Others who saw declines in telehealth after the first peak hypothesize that telehealth use will rise again in winter months along with a predicted spike in COVID-19 cases.

Patients hesitant to receive health care in-person and who do not have the ability to access telehealth services may be going without necessary care. Several organizations, including the Cambridge Health Alliance and the Mass. League of Community Health Centers, reported that the organizations that they represent contact patients to ensure that they are able to manage their chronic conditions. To contribute to the effort to maintain care, insurers eliminated cost sharing for all COVID-related telehealth visits during the pandemic. A manager at the MA Association of Health Plans explained that co-pays function as a lever for plans to direct patients to telehealth or in-person appointments in an attempt to incentivize safe and clinically-appropriate treatment in the proper setting.

Projections for telehealth after the pandemic

Providers and payers both argued that the future of telehealth after the pandemic depends largely on reimbursement levels in comparison with in-person visits. Several suggested that telehealth would significantly decrease without parity to in-person visits. A leader at the Community Care Cooperative predicted that without reimbursement parity, much of the progress that has been put into developing workflows and infrastructure for remote care delivery will be lost and hospitals will largely return to pre-pandemic systems of care delivery. A manager at the Community Care Cooperative noted that in order to advocate for reimbursement, we will need to first see the effects of the large-scale transition to telehealth on population health and disease management. This is a necessary first step before adopters can advocate for buy-in from policy makers.

A Manager at the MA Association of Health Plans expressed concern that the current reimbursement environment during the COVID-19 pandemic does not incentivize the efficient use of telehealth. Reimbursement should reflect value and not duplicate services. Moving forward, payers plan to pay close attention to the research that comes out of the pandemic to determine how telehealth can be delivered appropriately to increase efficiency of care delivery.

Others suggested that the "cat is out of the bag," and that it will be difficult to reign in telehealth services after the social distancing period ends. Boston Children's Hospital noted that they anticipate that levels of telehealth use will remain at 30-40% of total outpatient visits across specialties, with some ranging as high as 80% (e.g. behavioral health), after vaccines become widely available. A manager at the MA branch of the National Alliance for Mental Illness is thinking about providing services almost exclusively via telehealth moving forward because it facilitates care delivery to underserved communities. Moving forward it is important to remember that telehealth is not a monolith; we found that some mediums performed better than others for specific services but additional data on quality is essential for making decisions about the future of telehealth policy.

Technology winners and losers

Reimbursement and regulations will dictate the winners and losers for telehealth technology after the pandemic. If iOS and Android applications do not become HIPAA compliant, data security regulations have the potential to disrupt current adoption and diffusion trends of applications like Apple Facetime or text-messaging that capitalize on convenience for patients.

Video Visits

Videoconference was thought of as the dominant medium for provider-to-patient telehealth before the pandemic. Prior to the pandemic, visits were delivered using HIPAA compliant technology that was often accessed through patient portals. The expansion of technologies that are HIPAA compliant by the Office for Civil Rights enabled the delivery of telehealth over familiar applications like Apple Facetime and Zoom, which had fewer technical difficulties and required less internet bandwidth than many of the software programs offered over patient portals. Boston Children's Hospital used multiple video platforms to provide care, and observed that "many major hospitals also have multiple platforms." The variety in videoconference options allows the health care facility to choose the medium based on patient and provider preference, which facilitates adoption and diffusion. Another manager at the Cambridge Health Alliance observed that the easiest solution to offer video-based telehealth was to provide the patient with a link that directly connects to the video visit.

Several unforeseen clinical benefits of video visits surfaced during the interviews. A manager at the National Alliance on Mental Illness MA observed that a relationship with a therapist could be enhanced because video makes people appear closer to their provider's face, which creates intimacy that "doesn't really exist in an office six feet apart." A manager at the Brookline Center for Community Mental Health observed that video visits allow the provider to see people's home environment and provide context about the patients' lived experience. They also noted that the video platform created opportunities to better treat patients with autism and ADHD.

Audio-only visits

Audio-only visits delivered over the phone were identified as the most widely used and easily accessed form of remote care delivery during the COVID-19 pandemic. Two managers at the Mass. League of Community Health Centers independently reported that roughly 80% of telehealth visits in associated community health centers took place over the phone. This flexibility has been paramount in providing care delivery for all people, but has been particularly helpful for patients who have low computer literacy, or do not have access to technology or high-speed internet. Wifi is not present in every part of Massachusetts. For these reasons, phone visits during the pandemic have been widely supported by payers, providers, advocates, and hospital groups.

Audio-only visits were new for providers. A challenge that surfaced during the ramp-up was keeping the provider's phone numbers private. A manager at Northshore Community Mental Health said that they found success in using a "soft phone number" that patients could not call back after their visit. A benefit of phone calls was that they were easy and convenient for patients. This facilitated short "check-ins" that allowed providers to work with patients to iterate plans in a timely manner.

Patient adoption of audio-only telehealth was quick and intuitive. Most patients already thought of phone calls as the most direct way to contact a health center or specific providers. Generally, smartphones are the most widely held piece of communication technology in MA, and are capable of both audio-only and video services when data plans allow. This technology is central to access to telehealth services.

Secure messaging and other forms of text-based communication

Secure messaging and text-based communication more broadly received mixed reviews from payers and providers. Text messages did increase convenience and timeliness of care. A manager at the Cambridge Health Alliance noted that they used a mix of providers, nurses, and medical assistants to monitor secure messages. They would often reach out to patients by phone after receiving a message and turn it into a video-visit, which increased the timeliness of care. This sentiment was echoed by a behavioral health manager at NAMI MA. A manager at the American Telemedicine Association noted that text-based messaging and other forms of asynchronous communication allows the provider to analyze information in a shorter amount of time than communicating with patients in real time, which makes it possible for them to manage more cases per hour.

While convenient, text-based messages decreased the quality of communication. A manager at Blue Cross Blue Shield MA raised concerns that text-based communication platforms are often monitored by support staff that do not have explicit clinical training. Interviewees mentioned that some patients who asked providers several questions in their message only got a reply to the first message. This speaks to disorganization in reading and responding to the messages, which decreases the accuracy of care. A manager at the Mass. League of Community Health Centers observed that having multiple messaging platforms has led to disordered communication records, which has resulted in a loss of important data. That said, HIPAA-compliant apps are not applications that patients would normally use to communicate, so a large part of the convenience of this text-messaging would be lost if it were consolidated into one standardized platform.

Remote patient monitoring

A manager at the American Telemedicine Association was most excited about telehealth applications that allow providers to manage many patients. Asynchronous care and remote patient monitoring can help to overcome the gap in care services. It allows providers to monitor the health of their patients more efficiently and keep them out of the high cost parts of the health care system. These services also help providers to work with patients to iterate treatment plans and make behavior modifications.

While remote patient monitoring has the potential to monitor and encourage adherence to treatment plans, particularly for people with chronic conditions, we are not there yet. A manager at Community Care Cooperative stated, "Everyone wants to talk about what a great idea remote patient monitoring is. Conceptually people get it. The mechanics are really complicated."

Under current regulation, vital signs cannot be recorded by patients out of fear of inaccuracy. We heard from providers that various quality metrics require the use of technology that uploads patient vitals directly from the device to a computer in order for the procedure to count. However, these technologies are not yet widely available.

To circumvent this divide between supply and demand of remote patient monitoring technology, the Cambridge Health Alliance started an in-person vital and labs station with the explicit purpose of supporting remote delivery of care. A manager at the Mass. League of Community Health Centers noted that "a lot of health care agencies have opened up the spigot and are seeing a lot of money for remote patient monitoring." A manager at Community Care Cooperative reported that the organization is preparing a pilot program that gives remote patient monitoring devices to patients in their Telehealth Consortium of 35 community health centers. They are working to roll out technologies for remote monitoring of blood pressure and weight for chronic disease management. They will use a third-party application to collect and enter this information into the patient's electronic health records. Other interviewees mentioned the EKG function that is becoming more broadly available in wearable devices like the Apple Watch.

A manager at the Mass. League of Community Health Centers warned that handing out technology to patients means that providers will have to keep track of equipment. This has the potential to create an adversarial dynamic between providers and patients if the technology is lost or damaged. They suggested dispatching a community health worker or nurse to administer remote patient monitoring devices, which could help organize the dissemination of devices and help patients to navigate the process of collecting and uploading vital signs. Using remote patient monitoring in this way might reduce complications and costs down the road with the equipment and managing disorders effectively and efficiently.

Patient portals

Patient portals allow patients to access their health information and HIPAA compliant applications in one location. Through integrating with telehealth applications, portals allow telehealth applications and devices to work together to communicate with electronic health records. Health systems are far from this ideal state. Our interviewees explained that portals are clunky and perform poorly for connecting patients to telehealth services. Providers reported instances where patients became lost downloading multiple applications and eventually gave up and called the provider on their phones.

Managers found success in having both a portal and breakaway technologies within the portal that provide video visits to external users. This can both provide convenient access to applications, and allow the application to communicate back to the portal to record visits, manage scheduling, and conduct billing. Several other applications and add-on features could be developed in the future as breakaway services, including messaging, audio-only visits, translator services, and remote patient monitoring.

Remote patient monitoring and asynchronous communications that happen through patient portals are particularly efficient for providers to manage as long as they are built into the physician's daily workflow. It was suggested that for this to work, provider interaction with the portal must be billable under a fee for service reimbursement model.

Stakeholder perspectives

We interviewed administration and providers in hospital groups, community health centers, behavioral health centers, provider advocacy groups, patient advocacy groups, payers, and payer advocacy groups. This section presents the perspectives of stakeholders on different topics and key issues. We largely grouped stakeholders into the three categories of patients, providers, and payers as shown in Figure 1, a Venn diagram. Perspectives included in this graphic are from the interviews and were included if there was consensus among members in particular groups. With that in mind, it bears comment that all three groups agreed on several key factors, including supporting audio-only telehealth, developing remote patient monitoring, providing cost effective care, and support of some form of a value-based payment model. The rest of this paper will discuss specific examples of the stakeholder perspectives displayed in Figure 1 as they relate to important economic factors, unforeseen costs and benefits of telehealth, licensing, billing and coding, payment systems, behavioral health, and social determinants of health.

Figure 1: Stakeholder perspectives shown in **black** are unique to the particular stakeholder group; **blue** are shared between patients and providers; **orange** are shared between providers and payers; **maroon** are shared between patients and payers; **green** are common to all three groups.



Economic factors in telehealth delivery

Substitute, supplement, or redundancy?

Stakeholders used telehealth in different ways to deliver care. Behavioral health providers generally viewed telehealth as a one to one substitute to in-person care. Several providers with this view indicated that increased telehealth use during the pandemic was instrumental in overcoming unproven claims that telehealth was an inferior substitute to in-person care. Behavioral health providers generally felt that this type of care was worthwhile, though studies of efficacy are still needed to measure quality conclusively.

Compared to in-person care, telehealth has helped facilitate care delivery for patients that experience difficulty attending visits in-person due to health conditions or costs associated with travel. A manager at the Brookline Center for Behavioral Health noted that reducing travel related barriers to care "allows for a level of care that you couldn't do if you were trying to push everyone in person." This was substantiated by Boston Children's Hospital, who noted that offering telehealth visits with a specialist as a substitute for in-person care enables patients with rare diseases to meet with the most appropriate specialist regardless of distance. They observed that "there are over 7000 rare diseases, 50% of which are in children. The average rare disease patient can face 5-7 years on a diagnostic odyssey before getting an accurate diagnosis. Remote care allows patients to match with the care they need and reduce unnecessary visits and testing".

Telehealth was also viewed as a positive supplement to in-person care. Interviewees described redesigning care paths to decouple testing from diagnosis and treatment in order to capitalize on the advantages of the different mediums. For example, a patient can receive testing locally while accessing an expert remotely. The Community Care Cooperative is gearing up to pilot technology that allows the patient to collect and upload several relevant vital signs without having to attend in-person visits. Several providers expressed that innovations in these areas not only replace some in-person care, but enhance the timeliness of overall care.

Payers expressed concern about the proper balance between telehealth and in person visits, as well as about appropriate reimbursement levels. This is less of a concern with value-based payment systems offered by accountable care organizations. It is more of a concern under a fee for service payment model where services could be duplicative, and utilization and cost could increase without improvements in health. A manager at the Massachusetts Association for Health Plans gave the example of a patient who tried several times to seek treatment for an eye infection over telehealth and ultimately had to go to the hospital to seek treatment in-person. Additional research from the pandemic is essential to better understand if and when increased telehealth usage causes redundancy, successful substitution, or additional value in the context of specific conditions.

Costs unique to telehealth

Unsurprisingly, a large driver of telehealth cost comes from software, hardware, and IT support. For many organizations, the transition to telehealth during the first months of the pandemic required significant investments in these areas. Community health centers in particular reported a lack of infrastructure and human capital. The Community Care Cooperative noted that some of the smaller community health centers had only one IT person on staff.

Organizations like the Mass. League of Community Health Centers and the Community Care Cooperative reported providing cell phones with data plans to community health centers to distribute these services to patients who otherwise would not have access to these mediums for remote care. We heard that at present, these costs are borne by grants from the Federal Communications Commission through the Lifeline program, but when that money runs out this cost will be transferred to community health centers or access will be reduced.

A hidden cost of telehealth comes from the fact that patient-reported vital signs are not counted towards provider quality metrics, which translates to lower quality scores and decreased funding. This drove down overall hospital quality metrics during the first few months of the pandemic. The threat to quality scores reduces the incentive to remotely see patients with hypertension or other conditions requiring vital sign collection. Remote monitoring devices that upload vital signs which count towards quality metrics are becoming more widely used, but they come with significant cost.

Clinician workflow changes also increase costs. In addition, it has become more difficult for providers to incorporate medical assistants and other support staff that perform components of the visit at lower costs. Having the provider perform these functions increases overall labor costs. This additional work may reduce the number of patients a provider can see. Additionally, activities that were not traditionally done by providers like screening for housing, employment, depression, and other social determinants of health or behavioral health conditions may also be lost in this process. A manager at the Massachusetts League

of Community Health Centers predicts that the decline in screenings will cause a big uptick in health costs down the road.

Benefits unique to telehealth

Telehealth can increase access to care specialty care, primary care, and enhance disease management. Telehealth can facilitate the diffusion of specialty services, such as interpreters, in a provider network. Providers can schedule patient visits quicker for video visits than for in-person visits, generally within 24 to 48 hours. Text-based messaging was similarly shown to increase timeliness of provider response. Quicker access to care, less travel time, and the convenience of avoiding physician waiting rooms can increase patient satisfaction.

Telehealth can also reduce no-show rates. A manager at North Shore Mental Health Association observed that no-show rates decreased from 15-19% pre-pandemic to 7-9% during the pandemic. A manager at the Cambridge Health Alliance reported a no-show appointments reduction from nearly 20 percent to 4 percent. As the initial spike in social distancing eased over the summer and in-person visits increased, they saw no-show rates rise back up to 10% of all visits.

For particular groups such as children with ADHD or who are on the autism spectrum, telehealth provides unexpected benefits. Many children with ADHD were more attentive to the provider when care was delivered over video. Children on the autism spectrum were able to view their own facial expressions next to the image of their clinician, which helped them to learn about the display of different types of emotion.

Workflow

Telehealth during the pandemic required a dramatic reorganization of workflows, which continues to strain the healthcare delivery system. At the time of the interviews, providers were still working to develop adequate workflows to meet demand.

Videoconference workflows put significant pressure on providers. A manager at the Cambridge Health Alliance (CHA) reported significant increases in "hidden work," defined as work that is not recognized in billing codes, and therefore is not observed by human resource metrics. Things like eConsults, asynchronous communications between providers, often go unseen because providers have no financial incentive to check them. The manager at CHA noted that providers are incentivized to flip text messages from patients into visits because it makes their hidden work visible.

We also found evidence that video-chat platforms hinder collaboration between providers. A manager at the Community Care Cooperative said that providers had to invest significantly more time into handing off tasks to other staff. One manager admitted that their organization has not figured out how best to have conference calls between providers. This also disrupts collaboration between providers and additional workgroups, including translation services and community health workers. There is a need for user friendly technology that facilitates collaboration and spans boundaries between work groups.

Licensing and reimbursement policy

Licensing across state lines

Practicing remote medicine across state lines traditionally required a practitioner to have a medical license in the state that the patient receives medicine. The drafting of the Interstate Licensing Pact in 2013 bypasses this requirement by providing physicians with licensure in participating states. Interviews were conducted during the summer while Massachusetts was not participating in this compact (Physician License, n.d.). All stakeholders interviewed supported moving to join the compact. A behavioral health manager expressed frustration that they were unable to treat their patient when the patient traveled from Massachusetts to New Hampshire for a week of vacation. Boston Children's Hospital advocated for interstate licensing and expedited licensing processes to give patients access to diagnosis for rare and complex disease regardless of where they live. Kids are cared for all over the world but pediatric subspecialty expertise is not evenly distributed. A director at the MA Health and Hospital Association reported that they were "definitely supportive of having a conversation about what [interstate licensing] should look like and where it should go." They also supported getting rid of statutory originating site and geographic requirements in federal Medicare policy which have jointly obstructed the delivery of remote care to patients in their homes.

Billing and coding

Under the fee for service model, the development of billing codes ultimately dictates which services receive reimbursement. In practice, this means that investment in innovation for services that are not

covered by established billing codes carries risk as it will only be awarded when (or if) billing codes are established for the service. In the words of a manager at Community Care Cooperative "If you can't bill for something, it's hard to make a case for doing it." Health care is one of the few industries where the consumer (the patient) is generally not also the primary payer.

Providers expressed a desire to be able to use telehealth tools as they see fit. To do this requires the adoption of specific "virtual check-in" codes that allow for shorter interactions, as well as codes for asynchronous work, like text messages and remote patient monitoring. While some of these codes already exist, providers did not seem to be aware of them or were confused about their applicability. Greater dissemination of codes for short interactions and asynchronous work will allow providers more flexibility to provide efficient care. This also applies to services provided by pharmacists and nurses, who have the potential to participate in remote care but are not doing so in practice. A manager at the Cambridge Health Alliance observed that pharmacists, nurses, and medical assistants were not using telehealth because they were uncertain about their ability to bill for their time. The lack of easy to use codes for non-physician provider groups incentivizes administrators to instruct physicians to take on all aspects of remote chronic care, which reduces the capacity of physicians to focus on medically challenging cases, and increases the cost of labor.

A director at MA Health and Hospital Association commented that uniformity and predictability in terms of coding and coverage will make it easier for our providers to use the tools that they need to care for their patients. Uncertainty about the appropriateness of telehealth for various medical procedures continues to thwart providers. Providers forecasted that they will be hesitant about using telehealth if reimbursement is not on par with in-person visits.

Reimbursement model

We found that payers and providers agree that value-based reimbursement structures facilitate the most effective use of telehealth. Managers at MassHealth and the MA Association of Health Plans observed that a value-based payment model would allow a market-based approach that gives providers more control over care. While this might not be universal, providers we interviewed predicted that a valuebased model would reduce administrative complexity, eliminate hidden work, and put the focus on care. A manager at the Cambridge Health Association told us that "a fully capitated model would solve all of these problems." Value-based payment models encourage innovation regarding who provides the care and in what setting. Community Care Cooperative has been experimenting with value-based models and are excited about the prospect of payers like MassHealth offering this reimbursement method in the future. Under these models, the single risk-adjusted payment for each patient allows providers to use whatever tools and services they feel will help them to best support their patient and meet quality metrics. Here, they could use all of the various telehealth applications without worrying about reimbursement as long as the valuebased payment is sufficient to cover the expense. This flexibility also drives innovation by health technology companies that are currently handcuffed into developing applications for the services that are currently billable. Organizations like the Veterans Affairs, Kaiser Permanente, and Intermountain Health have doubled down on investment in telehealth technology and the results look promising.

Behavioral health

Telehealth for behavioral health seems to have struck a balance between regulation and clinical freedom and the result has been widespread adoption and innovation. For some, telehealth has removed geographical restrictions that limited them from beneficial appointments and group meetings. A manager at MassHealth observed that providers were particularly creative in inventing strategies to develop and sustain care relationships through telehealth.

Privacy, like trust, is paramount for successful behavioral health delivery. Giving patients the option of therapy over a phone has provided more opportunities for patient privacy. For this and other reasons, providers believed that using video versus audio should be a patient centered choice. We heard examples where remote care was more comfortable for patients than in-person care, considering that the patient was able to choose where they take the visit. This was particularly helpful for patients with anxiety about contracting COVID-19.

Telehealth makes sense from a workflow perspective. We heard that mental health counseling generally follows a model where clinicians do all of the work of handoff services and scheduling. This helps avoid some of the pitfalls of care coordination described earlier. A manager at the MA Association of Health Plans suggested that "behavioral health treatment lends itself well to telehealth," and observed that roughly 70 percent of their behavioral health visits switched to telehealth during the pandemic, compared to 50 percent of medical visits. That said, a manager at MassHealth expressed concern about burnout and isolation of staff during the public health emergency.

Telehealth received mixed reviews as a means of care delivery to youth during the pandemic. As previously discussed, telehealth over video had several unforeseen benefits for patients with autism and attention deficit disorder. A manager at MassHealth noted that youth generally responded well to telehealth at the beginning of the pandemic, but have since reported fatigue from time on devices that are also used for distance learning etc. They observed that parents similarly reported fatigue of balancing remote learning and remote therapy. Grandparents often reported difficulty using telehealth platforms to assist with care delivery. They also reported a loss of some of the parents/caregivers who are needed to manage care delivery to children as childcare became difficult to coordinate. Generally, these observations indicated a need for caregivers of children to adapt to remote care platforms in order to get accurate diagnostic information from providers. We need to understand best practices for this adaptation as well as outcomes to make more informed decisions about telehealth use for behavioral health after the public health emergency is over.

We heard several additional limitations of telehealth for behavioral health delivery. Therapy over video limits the provider's window of observation, which may prevent the provider from seeing physical indications of stress habits or signs of trauma, like bruises. We also heard from a provider that video-visits do not appeal to all patients, and the lack of in-person behavioral health services has resulted in poorer outcomes for some patients. A manager at MassHealth observed that youth in crisis generally struggled to make use of telehealth.

Telehealth traditionally lacked the ability to physically monitor substance misuse by patients with disorders of addiction. A manager told us that remote breathalyzers exist but are not yet widely used. A manager at Blue Cross Blue Shield MA, however, did note strides in treating opioid use disorder. During the pandemic providers became able to provide suboxone through video chat, and patients could meet with their methadone medical director through a video chat and have them authorize a thirty-day supply. While many still go mismanaged, providers that are using telehealth in these ways to manage opioid use disorder have found it beneficial to the course of treatment. Studies of efficacy are still needed to inform policy moving forward.

Social determinants of health

Access to technology

Patient lack of access to internet/technology was one of the most observed codes and came up 97 times in just 20 interviews. Many providers and hospital managers noted that the biggest gain from the policy shift during the pandemic came from reimbursement for audio-only telehealth. This gave patients access to the privacy of their car or a park for behavioral health visits, and gave patients without a stable internet the ability to have fluid conversations with providers. Several providers suggested that access to audioonly telehealth visits is a matter of social justice and health equality. A manager at Community Care Cooperative warned that failing to reimburse for audio-only telehealth in the future could exacerbate disparities in health care.

Many providers talked about how they could take better care of their patients if they were able to provide them with data to power their smartphones. A manager at the Cambridge Health Alliance came up with the idea of putting a video device in municipal buildings like libraries or in churches to allow patients access to this method for care delivery. That manager, as well as a manager at Community Care Cooperative, commented that it might be helpful to give patients access to these video devices in public housing. This is something that will require a coordination of multiple public industries, including education, that deliver remote public services.

Several provider groups are moving on providing their patients with technology and access. The Community Care Cooperative is piloting remote patient monitoring equipment at several of their health centers. Baystate Health is also considering a plan to give select patients tablets to help them manage their condition more efficiently. Other providers like a manager Northshore Mental Health suggest allowing patients to buy tax-deductible technology with flexible spending accounts. While these avenues exist for equitable dissemination of remote healthcare technology, this field still overwhelmingly caters to patients of privilege.

Immigrant populations

We found that telehealth technologies give providers the ability to share translation services between hospitals. This means that rural hospitals who do not have the opportunity to support in-house translator services have the potential to treat a large variety of patients who do not speak English. Telehealth additionally makes it possible for health care organizations to build digital queues to connect patients with providers that speak their language, which can be even more efficient than engaging translator services. Reviews of these coordination practices were mixed, indicating a variation in usability of the technology services that accomplish these tasks. Winning applications generally were independent of patient portals, easily initiated by providers, or written in the language spoken by the patient.

A manager at the Mass. League of Community Health Centers observed that patients who are immigrants often avoided telehealth altogether to prevent getting "dinged on their immigration applications as being a burden to society," something that is the result of the Trump Administration's "public charge" rule, which could jeopardize immigrant status for accessing public services.

Computer health literacy

Computer health literacy is a significant barrier for telehealth adoption in MA. Without access to computers and health literacy, many populations, including elderly, rural, and non-English speaking patients were mentioned as having increased difficulty navigating video applications, patient portals, remote patient monitoring software, and other mediums that hold promise for care delivery. A manager at the Mass. League of Community Health Centers noted that telehealth has the potential to help these patients manage chronic illness and engage in healthy behaviors. Often these underserved populations are where health interventions can have the most effect. Broader access to telehealth services holds the promise of improving health and reducing health care spending.

Policy Recommendations

The temporary reimbursement landscape during the COVID-19 pandemic is allowing patients and providers in Massachusetts to experiment with new modes of remote care delivery. We spoke to management in health care organizations, advocacy groups, and payer organizations to identify what has worked and what does not work for the technologies, clinical methods, and policy that are evolving in this new reimbursement landscape. The following recommendations surfaced from these interviews as being beneficial to payers and providers, and high impact for patients. These recommendations are intended to inform a range of audiences, from policy makers, to payers, and providers.

1. **Commission and review evidence-based studies on the efficacy of telehealth.** We are still uncertain about what specific conditions and circumstances create the most effective and efficient balance

of telehealth and in person visits. This research can inform future decisions about reimbursement.

- 2. Foster and continue efforts to move towards value-based payment models. This will allow organizations to innovate new ways to deliver high quality care for a lower cost.
- 3. Make reimbursement for audio-only telehealth visits a permanent option in addition to video where appropriate based on study of efficacy. Patients often call from outside their home to find privacy. Other patients do not have access to reliable internet. This needs to be a patient centered choice.
- 4. Allocate resources to overcome disparities in access to telehealth technologies. All populations need to have access to the internet and telehealth technologies to marshal the full capacity of these resources and mitigate differences in health care delivery. Internet enabled technologies like remote patient monitoring, patient portals, and videoconferencing have the capacity to increase the efficiency and effectiveness of care.
- 5. Enter into the interstate licensing compact. Having Massachusetts enter the compact gives providers the ability to serve patients that leave the state for business or vacation. It will also give Boston's world class specialists the ability to treat rare disease cases all over the country.
- 6. End originating site requirements. Patients need to be able to access telehealth services in their homes or wherever else is convenient, comfortable, and private for them.
- 7. Educate providers about payable codes for covered telehealth services. There is a lot of confusion about billing and providers are not doing their own research.
- 8. Educate providers about reimbursement codes for pharmacists and nurses. Lack of clarity surrounding reimbursement for telehealth services rendered by non-physician health care providers is causing physicians to take on more responsibility for remote care than they have for in-person care.
- 9. Develop HIPAA compliant software services that are compatible with widely used technology. Services need to be independent of portals, easy for patients to use, and interoperable with familiar phone applications like Apple's iMessage or FaceTime.
- 10. **Develop applications that facilitate group engagement in care.** This represents an opportunity for software development to help providers to "tag in" nurses and medical assistants during the visit, and further work with complex care workers, pharmacists, etc. to give the patient wraparound care.

Conclusion

The COVID-19 pandemic has made telehealth a household word in Massachusetts. Providers have widely overcome the technology and skill-related barriers to adoption and are positioned to use telehealth technologies into the future. Policy enabling options for shorter patient check-ins and phone calls have given patients and providers the flexibility to iterate treatment plans and behaviors in a timely manner. However, patient health literacy and access to technology remain barriers to widespread adoption of more advanced telehealth applications like remote patient monitoring and the use of patient portals that are projected to optimize effective and efficient care. The qualitative research presented in this brief is part of a growing body of research on telehealth use during the pandemic that attempts to understand the opportunities and pitfalls of this remote care. Telehealth is not a panacea; it is a collection of tools. The future of telehealth largely depends on our ability to understand how these tools can be applied to optimize care delivery.

Appendix A: State Policy Timeline

Date	Policy Name	Overview	Expiration
1/1/2019	MassHealth Bulletin 10	 MassHealth will reimburse for behavioral health services delivered via telehealth at the same rate as in-person behavioral health services 	None
1/1/2019	<u>MassHealth All Provider</u> <u>Bulletin 281</u>	 Community Health Centers, Community Mental Health Centers, and Outpatient Substance Use Disorder providers can provide certain outpatient services via telehealth HIPAA-compliant technology must be used to provide telehealth 	None
3/10/2020	<u>Governor Baker declares a</u> <u>Public Health Emergency of</u> <u>International Concern</u>	 COVID-19 declared a Public Health Emergency across Massachusetts 	Through the end of the Massachusetts Public Health Emergency
3/12/2020	<u>MassHealth All Provider</u> <u>Bulletin 289</u>	 MassHealth may deliver any MassHealth-covered services to beneficiaries through telehealth No specific technologies must be used to provide telehealth Reimbursement for telehealth will be the same as for in-person services Providers may bill MassHealth for telehealth services starting 4/1/2020 for dates of services as of 3/12/2020 Pharmacies can dispense up to a 90-day supply of a medication if requested by the patient or their provider The patient's home is an eligible originating site to receive telehealth services 	Through the end of the Massachusetts Public Health Emergency
3/12/2020	<u>MassHealth All Provider</u> <u>Bulletin 291</u>	 Supplement to MassHealth All Provider Bulletin 289 Providers who deliver care via telehealth may bill MassHealth a facility fee if permitted in their contract Provides specific guidance on billing for COVID-19 diagnostic laboratory services Pharmacists may dispense up to a 90-day supply of behavioral health medications, 	Through the end of the Massachusetts Public Health Emergency

		 schedule IV benzodiazepines, and hypnotics if requested by a MassHealth member or their prescriber Pediatric behavioral health evaluations may be conducted through telehealth from a qualified behavioral health professional 	
3/15/2020	Order Expanding Access to Telehealth Services and to Protect Health Care Providers	 In-network providers who deliver services via telehealth cannot be charged less than they would be for the same services delivered in-person Requirements to provide telehealth cannot be more restrictive than described in MassHealth All Provider Bulletin 289 COVID-19 related treatment provided via telehealth with in-network providers may not have any cost-sharing Prior authorization is not needed for COVID-19-related telehealth services with in-network providers 	Through the end of the Massachusetts Public Health Emergency
3/16/2020	Bulletin 2020-04	 The Division of Insurance expects insurers to communicate prevention, testing, and treatment options for COVID-19 to their beneficiaries COVID-19 treatment that is delivered via telehealth cannot have any prior authorization requirement COVID-19 treatment that is delivered via telehealth cannot have any cost-sharing In-network providers must be permitted to deliver health care services via telehealth Covered services provided by in-network providers should be available via telehealth for beneficiaries; this does not apply to services that are not covered inperson Provides guidance for providers on how to deliver health care via telehealth Insurers must reimburse telehealth services at the same rate as services delivered in-person 	Through the end of the Massachusetts Public Health Emergency
3/17/2020	Board of Registration in Medicine allows telehealth to be delivered to patients	 Previous face to face visits with a provider are not required before having a telehealth visit 	

	without a previous in- person visit		
3/21/2020	MassHealth Managed Care Entity Bulletin 21	 MassHealth MCOs must cover and reimburse for COVID-19-related expenses, including testing, telehealth services, home visits, quarantine in a hospital, and medications 	Through the end of the Massachusetts Public Health Emergency
4/2020	<u>MassHealth</u> <u>Telehealth Network</u> <u>Provider Bulletin 1</u>	 Established a new temporary provider type – Telehealth Network Providers (TNPs) to support COVID-19-related triage MassHealth will cover telehealth services provided by a TNP 	Six months after the end of the Massachusetts Public Health Emergency
4/10/2020	Alert Regarding Use of Telemedicine during Public <u>Health Emergency-COVID-</u> <u>19</u>	 Providers who are registered with the DEA may prescribe buprenorphine and other controlled substances to patients who they have not conducted an in- person medical evaluation with, provided specific conditions are met via telehealth, including through telephonic appointments 	Through the end of the Massachusetts Public Health Emergency
5/2020	<u>MassHealth Managed Care</u> <u>Entity Bulletin 29</u>	 MassHealth will reimburse for preventive services delivered via telehealth Creates a COVID-19 remote patient monitoring bundled service to facilitate home monitoring for patients with COVID-19 who do not need hospital care but need close monitoring The service includes all medically necessary services for seven days of inhome monitoring Managed care entities must cover outpatient COVID-19 testing, evaluation, and treatment provided by out-ofnetwork providers through the duration of the Massachusetts Public Health Emergency Out-of-network follow up care must also be covered if an in-network option is not available 	Through the end of the Massachusetts Public Health Emergency
5/31/2020	MassHealth All Provider Bulletin 294	 Supplements All Provider Bulletins 289 and 291 	Through the end of the Massachusetts

		 When provide descrip deliver telehea Allows dually audio-e reimbu previon Create monito home- COVID but neiservice home is service The bu service The bu service 	submitting telehealth claims, ers may disregard service code otions for how the service is ed (in-person, live-video alth, or telephone) providers to bill MassHealth for enrolled beneficiaries who receive only telehealth that is not ursable through Medicare only after usly submitting claims to Medicare s a COVID-19 remote patient oring bundled service to facilitate based monitoring of patients with -19 who do not need hospital care ed close monitoring ndle includes medically necessary as to facilitate seven days of in- monitoring, including a ometer and a pulse oximeter mote patient monitoring program able to all MassHealth ciaries, regardless of coverage type	Public Health Emergency
7/2020	<u>MassHealth All Provider</u> <u>Bulletin 298</u>	 Extended Bulletin Decem Provide contro withou Allows dually audio-or reimbu previon Provide enrolle a video claim t MassH 	s the telehealth policy discussed in ns 289, 291, and 294 through aber 31 st , 2020 ers may prescribe schedule II – V lled substances via telehealth t an in-person visit providers to bill MassHealth for enrolled beneficiaries who receive only telehealth that is not ursable through Medicare without usly submitting claims to Medicare ers who deliver care to dually ed beneficiaries via telehealth with o component must first submit the o Medicare before submitting to ealth	December 31 st , 2020
8/2020	MassHealth Managed Care Entity Bulletin 39	 Consol telehea Bulletii Care Ei Extend Decem 	idates and restates, MassHealth's alth policy noted in All Provider ns 289, 291, and 294 and Managed ntity Bulletins 21 and 29 s the telehealth policy through ber 31, 2020	December 31 st , 2020

11/2020	MassHealth Managed Care Entity Bulletin 46	•	Consolidates previous Bulletins and extends them through March 31, 2021	March 31, 2021
11/2020	MassHealth All Provider Bulletin 303	•	Clarifies previous All Provider Bulletins and extends them through March 31, 2021	March 31, 2021

Appendix B: Federal Policy Timeline

Date	Policy Name	Overview	Expiration
1/31/2020	Secretary Azar Declares Public Health Emergency for United States for 2019 Novel Coronavirus	 COVID-19 is declared a Public Health Emergency 	
3/6/2020	Coronavirus Preparedness and Response Supplemental Appropriations Act	 Medicare will cover telehealth services for all beneficiaries Telehealth can be delivered via smartphone 	End of Public Health Emergency
3/10/2020	<u>CMS Issues Guidance to help</u> <u>Medicare Advantage and Part</u> <u>D Plans Respond to COVID-19</u>	 Flexibilities in Medicare Advantage and Medicare Part D plans to waive cost-sharing for COVID-19 tests and related-treatment for both in-person care and telehealth Removed prior authorization requirements Waived refill limits on prescription drugs Relaxed restrictions for home or mail delivery of prescription drugs Expanded access to additional telehealth services 	End of Public Health Emergency
3/17/2020	Expanded Medicare reimbursement for telehealth via 1115 Waiver	 Medicare will pay for telehealth visits as of March 6th, 2020 at the same rate as for in- person visits for all beneficiaries in their homes or in any health care facility Flexibility in waiving or reducing copays 	
3/18/20	Office of Civil Rights (OCR) waived HIPAA noncompliance penalties	• OCR will not penalize providers for HIPAA noncompliance with regulatory requirements for telehealth	End of Public Health Emergency
3/19/2020	Coronavirus Aid, Relief, and Economic Security Act (CARES Act)	 Expanded list of eligible providers who can provide health care through telehealth Allows audio-only telehealth for certain services 	
3/30/2020	CMS Rule on Medicare & Medicaid payment policies	 Included coverage for audio-only telephone visits Added over 80 telehealth services to be eligible for Medicare reimbursement Flexibility in waiving or reducing copays Expanded eligible providers who can provide care via telehealth Reduced limitations on telehealth visit frequency for patients 	End of Public Health Emergency

3/31/2020	Drug Enforcement Administration Policy on Buprenorphine and Telemedicine	 Providers may initiate buprenorphine via telehealth 	End of the Public Health Emergency
4/30/2020	<u>CMS Rule on OTPs and</u> <u>Reimbursement</u>	 Patients who receive treatment at Opioid Treatment Programs may be treated via telehealth Increased reimbursement for telehealth services Temporarily removed Medicare regulations that telehealth services must follow the CMS rulemaking process 	
8/3/2020	Physician Fee Schedule Rule updates from CMS	• Ensure that certain Medicare policies for telehealth are permanent through the end of the year that the Public Health Emergency ends	
8/3/2020	Executive Order on Improving Rural Health and Telehealth Access	 Medicare may cover telehealth services beyond the duration of the national Public Health Emergency Note: this Executive Order requires Congressional approval in order to be enacted, which had not been approved as of August 10th, 2020 	

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