

Telehealth and the Medicare Population: Building a Foundation for the Virtual Health Care Revolution



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EXECUTIVE SUMMARY

As the COVID-19 pandemic swept through the United States, leaving a destruction of lives and livelihoods in its path, little did we imagine that it would also help reshape how health care across the nation was accessed and utilized. A combination of the public health emergency declaration, legislative mandates, and administrative authorities¹ allowed the Centers for Medicare and Medicaid Services (CMS) to issue temporary Medicare waivers and rules to remove barriers to urgent and necessary health care, including of the expansion of access to telehealth services.² Unbridled from past restrictions around Medicare coverage for telehealth, and combined with mandatory stay-at-home orders³, the use of virtual care technologies surged.⁴ By temporarily re-prioritizing health care delivery and expanding Medicare coverage, CMS's de-regulation and flexibilities quickly moved the health care delivery landscape into the virtual world.

The Center for Medicare Advocacy (the Center) recognizes the value of telehealth services and is heartened by the potential to increase access to the nation's health care system. We are also committed, however, to ensuring that older adults and people with disabilities receive quality health care while advancing health equity.⁵ It is critical that no beneficiaries are caught in the chasm created by the digital divide.⁶

In the early days of the pandemic, as the need for virtual care solutions became clear, the Center published eleven guiding principles⁷ to aid in making decisions about whether and how to expand Medicare coverage for telehealth.⁸ Those principles hold true today. They are:

1. Ensure any covered telehealth services are clinically appropriate;
2. Ensure that telehealth options supplement, rather than replace, in-person-care – and ensure that payment incentives align with this goal;
3. Promote behavioral health parity to help address the unmet needs of current and future beneficiaries in both urban and rural settings;
4. Ensure that any expansion of telehealth does not exacerbate health, racial, or income disparities, and that actions and expenditures are authorized to meaningfully address the digital divide that many Medicare beneficiaries face – including lack of limited access to digital literacy training, reliable broadband, and remote technologies;
5. Ensure equitable access to telehealth for underserved communities, including Black Americans and people of color, individuals with disabilities, and people with limited English proficiency; purposefully collect data on such access; and ensure compliance with all existing civil rights laws, including rules requiring the use of interpreters and the provision of materials in alternative formats and non-English languages;
6. Require providers to accurately disclose beneficiary cost-sharing obligations prior to service, and to fully document such disclosures; connect beneficiaries and providers with resources they need to understand their financial responsibilities; and carefully monitor to ensure that any waivers of cost-sharing are not happening in a discriminatory or otherwise problematic way;
7. Ensure that any expansion of telehealth protects patient privacy and data security for

personal health information. HIPAA privacy protections must apply to telehealth interactions between the patient and provider and personal health data must also be kept secure;

8. Ensure any expansion of telehealth is identical in traditional Medicare and private Medicare Advantage, and that the services and necessary equipment to access telehealth are equally available to all beneficiaries, regardless of the coverage pathway they choose;
9. Ensure that telehealth does not weaken Medicare Advantage network adequacy standards, including by prohibiting telehealth providers from satisfying network adequacy requirements;
10. Require public release of data concerning Medicare-covered telehealth, including the types of services provided, beneficiary experience and preferences, programmatic and beneficiary spending, health outcomes, and quality measurements; ensuring monitoring, oversight, data collection, and evaluation continues ongoingly so as to best inform future telehealth policymaking; and
11. Provide an extended phase-out period for the temporary COVID telehealth waivers and rules in order to minimize interruptions in care and prevent rushed policy development.

While Medicare Advantage (MA) is not the focus of this report, any expansions in telehealth, whether done administratively through CMS or through legislative changes, must be identical in traditional Medicare and private MA plans, and equally available to all Medicare beneficiaries.⁹ We also urge caution that telehealth should not be used as a means to weaken MA network adequacy standards.^{10,11}

With these principles as the foundation, this Report reflects the evolution of telehealth for the Medicare population. In the following pages, we will:

- Outline the needs for telehealth and virtual care options,
- Examine gaps that currently exist in accessibility and infrastructure that need to be addressed by lawmakers and policy makers, and
- Highlight disparities that exist or could arise with the goal of ensuring that all people living in the United States have equal access to the advantages and opportunities that telehealth can provide.
- Recommend a variety of steps that could enhance equitable access to telehealth.

The Report, while grounded in research, was guided by interviewing experts from around the nation about the complexities (both challenges and conveniences) that older adults and people with disabilities have faced accessing virtual care technology. The voices of those experts, along with their insights and stories, offer hard-earned wisdom from the field – to help understand the personal needs and perspectives of those most intimately impacted by rapid changes across the pandemic health care landscape.

We examined these issues through the lens of what we call “T.A.P. Challenges: Technology, Accessibility, and Peopleware”. Throughout this Report, we describe the driving factors and key considerations behind each of these three categories of T.A.P. challenges, illustrated with examples from the field that we gathered through interviews with leaders at Area Agencies on

Aging (AAAs) across the country. There remains work to be done to ensure equitable access to telehealth services and the benefits they can provide for all Medicare beneficiaries, but progress is possible. If policymakers, advocates and professionals who are focused on improving health care and equitable access for older adults and people with disabilities rally around the following recommendations, our combined efforts can ensure that we stand at the precipice of a new, more equitable era of improved health care and quality of life that just a short time ago seemed out of reach.

OVERALL POLICY RECOMMENDATIONS

For Administrative or Legislative Action

Permanently Add Key Medicare Covered Flexibilities for Telehealth

1. Remove geographic restrictions (i.e., the requirement to live in a federally designated rural area) to access telehealth services.
2. Allow a beneficiary's home to be included as an "originating site" for telehealth services.
3. Allow the health care workforce (physicians, nurses, other clinicians) to work across state lines.
4. Allow new patients access to virtual check-ins and e-visit services.

To Address Technology Challenges

1. Implement universal access to proper equipment on a stable platform.
2. Enhance "user-centered design" and build in assistive technology through software development for those with physical limitations due to age or disabilities.
3. Make health platforms / portals more accessible by designing them to be more intuitive to navigate, more accessible for people with disabilities, and for those who are not proficient in English.

To Address Accessibility Challenges

1. Enforce and prioritize enhanced FCC broadband mapping.
2. Ensure broadband is powerful enough to be consistently functional.
3. Classify broadband as a public service.
4. Make permanent the expanded benefits of the FCC's Lifeline "Obama phone" program.
5. Under the FCC's Affordable Connectivity Plan, combine the home internet discount with the Lifeline "Obama phone" program.

To Address People / Peopleware Challenges (i.e., needs of users interacting with technology)

1. Expand training options. Training should include targeted education focused on teaching beneficiaries how to use their equipment to access telehealth services and health portals. Training should be recurring as needed for individuals who might not intuitively know or remember how to access telehealth services, and as technology evolves.
2. Provide funding for individuals who can serve as direct intermediaries between Medicare beneficiaries and providers / clinicians.

INTRODUCTION

“We saw very little user uptake of [telehealth] pre-pandemic. And then, of course, everything changed and everything opened wide up.”

– Lynn Kimball, Executive Director, Aging & Long Term Care of Eastern Washington

As the nation emerges from the COVID-19 pandemic, lawmakers and government administrators are beginning to take a step back to reflect on what the “new normal” across the health care landscape looks like.¹² The use of telehealth, buoyed by an expansion of regulatory flexibilities and benefit coverage by the Centers for Medicare & Medicaid Services (CMS), has surged. According to a report by the Assistant Secretary for Planning and Evaluation (ASPE), from 2019 to 2020 the number of Medicare beneficiary telehealth visits skyrocketed from 840,000 to 52.7 million – an increase of over 6,000%.¹³ Furthermore, 92% of beneficiaries accessed telehealth services from the comfort of their homes rather than at a dedicated external site (a benefit not permitted before the pandemic).¹⁴ This astonishing surge suggests that there is a real and significant opportunity to provide these services in a way that will help bring long-sought improvements for the Medicare population, including:

- Increasing access to primary care;
- Providing access to more specialist care;
- Improving communication and coordination of care between individuals and their health care teams; and
- Providing more consistent support for self-management of health care.¹⁵

Background

Telehealth visits are covered under Medicare Part B, which covers services like doctor visits, outpatient hospital care, and physical therapy.^{16,17} Before the public health emergency, CMS covered telehealth only for services provided by doctors, nurse practitioners (NPs), clinical psychologists, and licensed clinical social workers. At the beginning of the pandemic, the President declared a national emergency and the Secretary of Health and Human Services declared a public health emergency nationwide. These declarations triggered authority for CMS to waive requirements. As a result, CMS was able to broaden the list of covered providers to include all those who are eligible to bill Medicare.¹⁸ CMS also waived the requirement that practitioners be licensed in the State in which they are practicing.¹⁹ The Secretary of the Department of Health and Human Services (HHS), using section 1135 of the Social Security Act, may temporarily modify or waive certain Medicare, Medicaid, CHIP, or HIPAA requirements, called 1135 waivers.²⁰ Specific waivers may be implemented on a “blanket” basis, which is implemented after it has been determined that all similarly situated health care providers in the emergency area need that type of waiver or modification.²¹ On January 27, 2020, a Public Health Emergency (PHE) was declared in response to COVID-19. PHEs last for the duration of the emergency or 90 days, and may be extended by the Secretary.²² To date, the PHE has been renewed every 90 days since the initial

2020 declaration date.²³ The Biden Administration and HHS say they will give states 60 days prior notice before ending the PHE.^{24,25}

Before the public health emergency, it was additionally required that telehealth be furnished using audio and video equipment (at minimum) that permitted two-way, real-time interactive communication between the patient and the distant site physician or practitioner. The Coronavirus Aid, Relief, and Economic Security Act (CARES),* however, granted CMS the authority to waive the video technology requirement to allow audio-only coverages, as well. This waiver is especially useful for services such as behavioral health counseling and general education services where a visual component is not absolutely necessary,²⁶ along with audio-only telephone evaluation and management services. It also opens telehealth services to a broader population who might not have the equipment or access needed to connect via a video stream.

Further, reimbursement for telehealth services was authorized at the same rate as in-person services. The requirement that a person must have seen a doctor within the past three years was also waived, allowing telehealth providers to accept new patients. Before these waivers, Medicare coverage of telehealth was prescriptive and limited in nature. It was only available to a person who lived in a federally designated rural area^{†,27}; and the individual could only utilize it by leaving home and going to a clinic, hospital, or other specified facility for the service (known as an “originating site”).²⁸

“We have hospitals that have closed. Critical care access hospitals have closed. They have to go further. And then you have the transportation issue. How do you set up transportation if your family is working?”

– Diana Hoemann, Executive Director, Care Connection for Aging Services, Missouri

Several Area Agencies on Aging (AAA) leaders with whom we spoke around the nation saw little sense in requiring older adults with mobility or transportation challenges or those with disabilities to go to an outside location to access telehealth services. “If you make people go somewhere else, then why wouldn’t they just go to the doctor?” noted Melissa Elliot, VP of Programs and Services at Arizona’s Region 1 AAA. “With older adults, if we’re trying to help them age in place ... then it just seems like having that available to them at home would be a great benefit.”

* The CARES Act was one of multiple pieces of COVID-19 legislation. Descriptions of the bills can be found [here](#).

† Health Resources & Services Administration (HRSA) relies on the U.S. Census Bureau and the Office of Management and Budget (OMB) to define rural areas, in addition to using Rural-Urban Commuting Area (RUCA) codes to create its own definition of rural. Additionally, the Census Bureau defines “rural” as all the people, housing, and territory that are not within an urban area. Therefore, according to the Census Bureau, any area that is not urban is considered rural.

Under the 1135 waiver, these restrictions were lifted and telehealth services were expanded to cover office, hospital, and other care visits, including in the patient's home. While a Medicare co-insurance and deductible normally apply to these services, the HHS Office of Inspector General (OIG) authorized physicians and other practitioners to reduce or waive cost-sharing for telehealth services paid for by federal health programs during the COVID crisis.³⁴

Growing Need for Telehealth:

- **Fewer providers in rural areas.** About one in four Americans live in rural areas (more than 46 million people, according to the CDC), but only about 10% of doctors practice there. Furthermore, according to the Government Accountability Office, over 100 rural hospitals closed from January 2013-February 2020, which means that people living in those areas must travel at least 20 miles further to get inpatient care and double that distance to get more specialized care, such as alcohol or drug abuse treatment.²⁹
- **Significant need within underserved populations in remote regions.**³⁰ Those living in rural areas face myriad health disparities and are “more likely to die from heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke than their urban counterparts” and could benefit from better access to health care.³¹
- **Challenges for people with mobility limitations to get needed care.**³² Research shows from 2012 to 2018, Medicare beneficiaries had a greater risk of becoming homebound than becoming a nursing home resident. Within that period, it is estimated about 4.5 million became homebound, while 1.2 million moved to a nursing home.³³

Looking Forward – A Call for Equitable Access

Since the authority to waive these restrictions is tied to the Public Health Emergency (PHE) declaration, these changes would have to be made permanent in order for them to be extended once the PHE is lifted. The future of telehealth will be shaped, to a large degree, by how CMS moves forward with its regulations, along with potential legislation lawmakers might choose to turn into law. This report does not aim to definitively state which changes can be administered administratively versus through legislation. By CMS's own account, since it was established in 1965, Medicare has become the standard bearer “for coverage, quality, and innovation in American health care.”³⁵ In 2020, just over 18% of Americans (62.8 million people) were covered by Medicare.^{36,37} In that same year, Medicare spending accounted for 20% (\$829.5 billion) of the total National Health Expenditure (NHE), while Medicaid accounted for 16%.³⁸ In November 2021, CMS released the Calendar Year 2022 Medicare Physician Fee Schedule Final Rule.³⁹ In it, CMS extended certain telehealth and telecommunication services, such as behavioral health care, through the end of 2023,⁴⁰ but Medicare beneficiaries need and deserve more than a temporary extension. Beneficiaries need a clear vision and strategy regarding what benefits and supports they can depend on.

The broader health care industry has taken notice of the prospect of telehealth becoming a permanent component of our health care ecosystem. The management consulting firm McKinsey & Company reports that “with the acceleration of consumer and provider adoption of telehealth, and extension of telehealth beyond virtual urgent care, up to \$250 billion of current US healthcare spend ... or ~20% of all Medicare, Medicaid, and commercial outpatient, office, and home health [expenditures], could be virtualized.”⁴¹ *The Wall Street Journal* reported that venture capitalists

backed 538 telemedicine startups with \$13 billion in funding through October 2021 (compared to \$7.7 billion across all of 2020).⁴² One investor told the newspaper, “Virtual medicine is here to stay.”

Telehealth appears to be powering a health care delivery revolution. As evidence is suggesting, however, there is a gap between where we are as a nation and where we need to be to actualize a vision of a highly connected society irrespective of the unequal social fabric upon which we live our daily lives.

“We’re surprised every day how resilient this population is and maybe, in many cases, unnecessarily so. We just have not been creative enough to create some of those wrap-around supports to improve their quality of life. Because having access to medical care is so basic, but if you can’t get access to it, it doesn’t matter how good it is. That’s the key.”

– Aaron Bradley, East Tennessee Area Agency on Aging

While telehealth services are poised to change the health care landscape, care is needed to construct solutions that do not unintentionally create a land of “two connectivities” – those households that have a multitude of electronic devices and access to broadband, and those that cannot make the digital leap. In *The Role of Telehealth in an Evolving Health Care Environment: Workshop Summary*, Dr. Thomas Nesbitt writes, “New knowledge and new science are being developed all the time. When some people have access to that new knowledge and expertise and other people do not, disparities grow.”⁴³ While Dr. Nesbitt believes that “advances in telecommunication and technology can overcome some of these disparities by redistributing that knowledge and expertise,” in the current telehealth reality, 52% of Area Agencies on Aging surveyed about the greatest challenges facing older adults and caregivers during the COVID-19 pandemic ranked “limited or no access to technology” as a top concern.⁴⁴ In fact, researchers at the University of Chicago recently concluded that lack of internet access *itself* (i.e. independent other demographic risk factors such as socioeconomic, education, age, disability, health insurance coverage, or immigration status)⁴⁵ was one of the factors that most consistently was associated with a high risk of COVID-19 deaths.⁴⁶

Demographics do certainly appear to play a strong role, however. Compared with White populations, minority patients (particularly Black and Latinx) are (a) more likely to report being in relatively poor health and have higher prevalence rates of some chronic conditions,⁴⁷ and (b) less likely to use video for telemedicine visits.^{48,49} This can impact quality of care. This combination of poorer health and lower video use can be dually detrimental. One study that analyzed video visits and telephone visits found that video visits were on average seven minutes longer and were associated with 1.2 more visit diagnoses.⁵⁰

The potential benefits of expansive telehealth are vast, but it is vital that on the road to improving access to these services, we safeguard that health equity and digital equity intersect. Before further expanding telehealth services for Medicare beneficiaries, we must first ensure the right questions are asked and the proper solutions are available.

POLICY RECOMMENDATIONS FOR CMS (if authorized without Congressional legislation)

Centers for Medicare & Medicaid Services (CMS): Permanently Add Key Medicare Covered Flexibilities for Telehealth

- Remove geographic restrictions (i.e., the requirement to live in a federally designated rural area) to access telehealth services.⁵¹
- Allow a beneficiary's home to be included as an "originating site" for telehealth services.⁵²
- Allow the health care workforce (physicians, nurses, other clinicians) to work across state lines.⁵³
- Allow new patients access to virtual check-ins and e-visit services.⁵⁴

PRIORITY LEGISLATION AND FUNDING PENDING IN CONGRESS‡

- ***Telehealth Extension and Evaluation Act*** (S.3593)⁵⁵ – This bipartisan legislation sponsored by Senator Catherine Cortez Masto (D-NV) and co-sponsored by Senators Todd Young (R-IN), Angus King, Jr. (I-ME), and Michael Bennett (D-CO), would allow CMS to extend Medicare payments for a broad range of telehealth services, including substance abuse treatment, for an additional two years. Additionally, the bill would commission a study to analyze the impact of the telehealth flexibilities instituted during the public health emergency in order to inform Congress on which flexibilities should be made permanent.⁵⁶
- ***Telehealth Extension Act of 2021*** (H.R.6202)⁵⁷ – This bipartisan legislation sponsored by Representative Llyod Doggett (D-TX) and co-sponsorship by 37 legislators including Representatives Devin Nunes (R-CA), Mike Thompson (D-CA), Mike Kelly (R-PA), and David Schwikert (R-AZ) would permanently lift the above mentioned geographic and site restrictions on where people can receive telehealth services. Additionally, it would temporarily extend emergency authorities established during the COVID-19 pandemic that authorized a wide range of providers and services via telehealth to allow for further study of the impact and utilization of the added flexibilities.⁵⁸
- ***CONNECT for Health Act of 2021*** (S.1512)⁵⁹ – This bipartisan legislation sponsored by Senator Brian Schatz (D-HI) and co-sponsored by 61 Senators including Senators Roger F. Wicker (R-MS) and Benjamin L. Cardin (D-MD), would expand coverage of telehealth services under Medicare, including CMS authority to waive certain restrictions, such as the types of technology that can be used. Furthermore, the bill would allow CMS to waive coverage restrictions during any public health emergency. The legislation would permanently remove geographic restrictions on originating sites and allow the beneficiary's home to serve as the originating site. It would also permanently allow federally qualified health centers (FQHCs) and rural clinics to serve as the distant site (i.e., the location of the health care practitioner).
- **Bicameral, Bipartisan Legislative Support for Action** – A letter – signed by 45 bipartisan, bicameral lawmakers – was sent to the majority and minority leadership in both the Senate and House of Representatives on January 28, 2022. It called for the expansion of telehealth services for Medicare beneficiaries to be included in upcoming funding legislation.^{60,61}

‡ We highlight these bills because they contain important changes related to telehealth. All telehealth legislation must be carefully examined to ensure they are in accordance with the consumer protections outlined in the Center's telehealth principles outlined in the Executive Summary.

T.A.P. CHALLENGES: Technology, Accessibility, And Peopleware

TECHNOLOGY

? How do we ensure Medicare beneficiaries are equipped with the right technology to successfully access telehealth services?

1. Clarify and Standardize Definitions.

According to the United States Census Bureau, approximately 92% of all households in the nation in 2018 had at least one type of computer.⁶² While on the surface this statistic seems promising, dig a little deeper and issues arise that need further investigation.

What exactly does the word “computer” mean? In terms of accessing telehealth, how we define a “computer” and its usability is vital. A smartphone is classified as a computer, in addition to desktops, laptops, and tablets. Indeed, Silicon Valley technicians created the smartphone to be a handheld computer device. The computing system operating the original space shuttle used only 1 megabyte (MB) of RAM,⁶³ while the iPhone 13 Pro Max comes with up to 1 terabyte (TB) of memory.⁶⁴ For context, 1 TB is equivalent to 1,048,576 MB.⁶⁵ While smartphones have microprocessors which provide more power than many desktop computers,⁶⁶ functionally they do not create the same user experience as a desktop – especially for older adults and people with disabilities.

2. Determine if Smartphones Used as Computers are Liabilities or Opportunities

Hardware Issues

The physical aspects of the smartphone, such as size and functionality need to be considered.

Size. The first iPhone was released in January 2007 and could fit in the palm of a hand, with its 3.5-inch widescreen display. “We are all born with the ultimate pointing device – our fingers ...” said Apple’s then-CEO Steve Jobs, “... and iPhone uses them to create the most revolutionary user interface since the mouse.”⁶⁷ Fast forward to 2019 and smartphone screen sizes[§] were larger, but not by much. Also in 2019 approximately 22% of the country had a smartphone with a screen size of 5.5 inches and 21% had smartphones with a screen size of 4.7 inches.⁶⁸ For comparison’s sake, the diagonal length of a U.S. dollar bill is 6.67 inches.**

According to a report published by Pew Research Center, older adults often have physical conditions or health limitations that make it more challenging to use new technologies. For

[§] Display screen sizes are the diagonal measure of the screen (from corner to corner).

** U.S. currency bills are 2.61 inches wide and 6.16 inches long. I used a rectangular calculator to achieve the diagonal measurement.

example, 23% of older adults surveyed for this Report indicated they had a physical or health condition that made it difficult or challenging to read.⁶⁹

“If you think about our smartphones. You can do a lot with them, but as we age and our vision declines, you're struggling to see on your cell phone, so even tablets and laptops can be difficult.”

– Regan McManus, Director, INCOG AAA, Oklahoma

Touchscreen Technology. The benefits of touchscreen technology are vast. It makes our handheld devices easier to use, easier to maintain, more secure, and durable.⁷⁰ Some older adults, however, may have difficulties effectively utilizing smartphones due to physical barriers that can worsen over time.

“It is commonly accepted that visual acuity, contrast sensitivity, visual search capabilities, fine-motor skills, hand dexterity, and touch sensitivity suffer considerable losses with age, researchers point out. “One cannot safely assume that target [font] sizes that have been found adequate for younger adults will also provide a comfortable user experience for the elderly.”⁷¹

It’s an issue that Joan Marshall, Respite Program Coordinator at Senior Resources Area Agency on Aging in Connecticut can understand. “Smartphones are great, but people can’t necessarily see, they can’t necessarily use the phone easily. Finger dexterity and touch screens and all that stuff. They are a little bit not intuitive.”

“Zombie Fingers.” Many touchscreens rely on capacitive technology. This technology is designed to sense human touch by generating a small electric field. Because the human body conducts electricity, the fingertip will absorb the emitted electrical charge when it is near the screen and create a disturbance field altering the grid of electrodes on the screen and enabling the phone to register the command.⁷² People with very dry hands or callouses on their fingers, however, experience limited electrical conductivity of the skin. This creates a condition sometimes referred to as “zombie fingers”.⁷³ Older adults suffer from this issue to a greater degree because skin loses moisture as it ages due to the loss of essential fats. Those fats are critical in forming a barrier to hold moisture in. Studies show that between 60-99% of older adults are impacted by dry skin.⁷⁴

Software Solutions

Although smartphone hardware might pose some physical limitations for older adults and those with disabilities to fully access telehealth services, software engineering might be the key to overcoming at least some of these barriers.

Dr. Chaiwoo Lee, a research scientist at the Massachusetts Institute of Technology (MIT) AgeLab, sees the benefits of smartphone software. “What’s good about smartphones and tablets is that usually most products out there have some accessibility features built in, so you can go into settings, increase the default text sizes, increase the default contrast, for example.”

Assistive Technology. Part of the solution lies in assistive technology. This technology (device, software, or equipment) helps people with disabilities, older adults, or those with other ongoing conditions or diseases maintain or improve their functioning and independence, which promotes health and overall well-being.⁸² Assistive technology ranges from hearing aids, to voice recognition programs and screen readers, to screen enlargement applications.⁸³ According to the World Health Organization, one billion people around the world need assistive products today and more than two billion are expected to need at least one assistive product by 2030.⁸⁴

Examples of Assistive Technology Settings on Smartphones that Increase Accessibility:

- For those with hearing impairments. The app Live Transcribe, installed on some Android handsets and available as free download in Google Play Store, uses the device's microphone to capture sounds and transcribes it instantly, creating the opportunity for individuals to have conversations more easily.⁷⁵ According to AARP, iPhones do not have an equivalent built-in feature. While there is an app called Transcribe Live in the Apple App Store, it requires an in-app purchase after trying the service for 15 minutes.⁷⁶
- For those with physical or motor control issues. Settings in the iPhone can be found under Touch which allow a person to change how the display screen responds to touches. And for those suffering from “zombie fingers”, a pointer device such as a stylus, wired mouse, trackpad, or assistive Bluetooth device can be connected to the smartphone or tablet (both iPhones⁷⁷ and Android devices⁷⁸).
- For those who have trouble typing on a small screen. The Dictation setting on a smartphone allows a person's voice to compose emails and texts, create lists, and give instructions. An individual can also summon the help of Siri on an iPhone⁷⁹ with the “Hey, Siri” command or use the Voice Access app on an Android⁸⁰ which allows for the “OK, Google” command.⁸¹

⚠️ DISPARITIES WATCH

While telehealth services may increase access to care for some individuals with disabilities, without proper attention to the design and implementation of these services, it will likely exacerbate health inequalities for people with disabilities.⁸⁵ The spectrum of disabilities is vast. Some people live with functional impairments that would be classified as a disability, but don't necessarily classify themselves as having a disability. Arlene Lugo, Program Director of the Connecticut Tech Act Project, out of the Aging & Disability Services, has witnessed it firsthand. “Older adults often don't see themselves as that person with a disability, but they might say, ‘I struggle with my grip’ or ‘I struggle with walking’ or ‘I can't walk for long distances like I used to.’” According to the National Institute on Deafness and Other Communication Disorders, about one-quarter of individuals aged 65-74 have disabling hearing loss. That figure jumps to 50% for people who are 75 and older.⁸⁶ Limitations, such as hearing loss, can often be overlooked and not be seen as a disability.⁸⁷

Federal Laws. A large part of the progress in building assistive technologies into today's devices is due to the Americans with Disabilities Act (ADA), which was signed into law in 1990.⁸⁸ The purpose of the law is to prohibit discrimination and ensure that people with disabilities have the same rights and opportunities as everyone else to participate in the mainstream of American life.⁸⁹ Additionally, in 2010, President Obama signed the 21st Century Communications and Video Accessibility Act (CVAA) into law. The CVAA updates federal law to increase the access of people with disabilities to model communications in line with modern technologies – including

digital, broadband, and mobile innovations. This includes requirements such as access to web browsers on mobile devices by people who are visually impaired, mandated hearing aid compatibility to telephone-like equipment, and allocating up to \$10 million per year from the Interstate Telecommunication Relay Services (TRS) Fund to distribute special equipment to low-income people who are deaf-blind so that they can access telecommunications and Internet services.⁹⁰

“I think we’re probably looking at a near future where it might not be too much of an issue for older adults to use smartphones, because of the demographic trend or technological trend, and also the phones are being improved themselves with different accessibility features.”

– Dr. Chaiwoo Lee, Research Scientist, MIT AgeLab

A More Stable Platform. In one respect, smartphones may hold a strong accessibility advantage over computers: “I see one of the advantages using smartphones or tablets over possibly computers is that there’s less variation in terms of the products that are out there.” Dr. Lee contends, “It’s harder to control what the interface looks like, how the products and the services might operate on a computer, rather than on a smartphone or a tablet. There’s just less variation in terms of the specific products and models that are out there. So, it’s a little bit easier to control what the interaction might look like, and to have that designed for people of different needs.” Furthermore, “If you look at laptops, desktops, there are really old models out there that are still being used right now. Whereas smartphones are much younger in general.”

A Call for Software Engineers. The COVID-19 pandemic brought about drastic changes in how Americans accessed health care and accelerated the need for telehealth almost overnight. The Kaiser Family Foundation reported that more than a quarter of Medicare beneficiaries (27%) had a telehealth visit between the summer and fall of 2020.⁹¹ For Dr. Lee, it’s just a matter of time before the issues that are being identified and raised will soon be remedied. “I think we’re still in the learning stage as to what we can improve and how we can make this more accessible and usable across people of all abilities. Marrying some of the universal design features that are built into today’s smartphones and tablets,” said Dr. Lee, “I think there’s potential in improving how different apps, different health care related services, in addition to telehealth can be accessed on different platforms.”

DISPARITIES WATCH

According to the Census Bureau, smartphone ownership is present in 84% of U.S. households, exceeding all other computing device ownership. According to Pew Research, however, Americans with lower incomes rely more on smartphones for their online access because there isn’t discretionary income to buy multiple devices, such as desktop or laptop computers.⁹² Furthermore, households that rely only on a smartphone “were likely to make \$25,000 or less, be headed by someone under 35 years old, or have a Black or Hispanic householder.”⁹³ As a point of comparison, in 2021, the federal poverty income line for a family of four was \$26,500.⁹⁴

Accessible Equipment. The Connecticut Tech Act Project (CTTAP) is a model that helps disabled

people of all ages to access Assistive Technology devices and services. This includes finding the right equipment to fit individuals’ needs. For older adults and others with physical limitations, slight cognitive decline issues, or simply those who might need a more user-friendly piece of equipment to access services, Arlene Lugo, Program Director at CTTAP, shared various forms of technology that can help, including:

- **GrandPad.** “It’s sort of a hybrid phone tablet – it’s bigger,” explains Respite Program Coordinator Joan Marshall, with Senior Resources Area Agency on Aging, “You can purchase data with it. It comes with a very small number of apps. It’s big, so older people can see it easily.” GrandPad offers a subscription service that comes with various options such as a private family network for easy accessibility to loved ones, playing games, and the ability to hold video chats.⁹⁵ Additionally, according to the company’s website, there are no modems or passwords, which might add layers of complication. “For somebody who can afford it, who’s in a rural area, it could be a great solution,” Marshall adds. “But again, you’re looking at the money piece.” Arlene Lugo, with the Connecticut Tech Act Project noted she experienced some proprietary challenges with the GrandPad. “You couldn’t download extra things to it. Extra apps and things like that. Things like increasing the font was very limited or having text read out loud to you was very limiting.”
- **Birdsong.** The Birdsong Tablet comes pre-loaded with content, has big buttons, and is scaled down for simplicity with six large icons on its home screen. It also allows video chat and email. A Wi-Fi connection is needed. Birdsong has provided tablets for use by the Connecticut Tech Act Project (CTTAP).¹⁰⁰ Arlene Lugo, CTTAP Program Director, commented, “We worked with the company directly to create a special package,” adding, “we could purchase the equipment and one year of connectivity and subscription to their software that included things like easy access to telehealth, games, videocalls, and things like that.”
- **Amazon Devices.** Amazon’s automated voice assistant, Alexa – built into the company’s Echo devices and recently added to a number of Windows laptops as an interactive assistant¹⁰¹ – offers various potential benefits for older adults. These include the ability to help with basic tasks such as managing appointments and creating to-do lists. Alexa can also help seniors schedule transportation, place grocery and other delivery orders, and make phone or video calls.¹⁰² Given Amazon’s reach and brand recognition, Arlene Lugo (of CTTAP) sees a demand for these devices among the population she serves, with some constituents requesting support for the purchase of an Echo device.



Direct Move into Health Care Through “Alexa”

Alexa offers half-a-dozen HIPAA-compliant⁹⁶ health care skills. “Skills”, according to Amazon, are like apps and provide a set of predetermined commands to access content or Alexa interactions. Alexa’s health care skills are designed to help manage a person’s healthcare needs from home using voice command, such as checking the status of prescription delivery.⁹⁷ This is a relatively new program and requires a partnership with health care providers, payors, pharmacy benefit managers, and digital health coaching companies.⁹⁸ Companies such as Cigna, Express Scripts, and Atrium Health are involved in the program.⁹⁹

DISPARITIES WATCH

Unless paid for through a government program, equipment targeted to compensate for limitations – be they physical, cognitive, or simply needing a more user-friendly experience – are relatively costly. This means that only people with the means to access these technologies will be able to get the benefits they offer.

- **GrandPad** – Costs \$65/month (\$780 annually). This includes the tablet, cellular data, software, and customer support.¹⁰³
- **Birdsong** – Costs \$64/month for the first 12 months (\$768 for the first year). After that period, the monthly content subscription costs \$40 (\$480 per year ongoing). Since Birdsong uses Wi-Fi, so the user will need a Wi-Fi subscription as well.¹⁰⁴

DETAILED POLICY RECOMMENDATIONS FOR TECHNOLOGY

- **Implement universal access to proper equipment on a stable platform.** One way is to expand eligibility requirements for the current one-time discount (up to \$100) to purchase a laptop, desktop, or tablet offered by the FCC through the Affordable Connectivity Program (the long-term program replacing the Emergency Broadband Benefit¹⁰⁵). To qualify currently, a household must have an income at or below 200% of the federal poverty threshold. This means that an individual could not make more than \$27,180 a year or a family of four could not bring in more than \$55,500.¹⁰⁶ Another alternative would be to increase current discount (up to \$100). According to Pew Research, 41% of adults with household incomes below \$30,000 per year do not own a desktop or laptop computer.¹⁰⁷ Research Scientist Dr. Chaiwoo Lee at MIT AgeLab concurs. “It’s critical that people who might be underserved or who might be in areas or in situations where they cannot easily access these services, have access to a smartphone, tablet, or something that could work as a channel for them to be able to see what’s out there and be able to use what’s available to them.”
- **Enhanced “user-centered design” and build-in assistive technology through software development for those with physical limitations due to age or disabilities.** “User-centered design principles are not always applied in all cases,” according to MIT AgeLab’s Dr. Chaiwoo Lee. “A lot of the apps ... across different products and services that are developed for older adults as well as other people and with different physical and functional capabilities are not always built for people who can’t easily see or hear or [for] people who might not have the relevant experience to navigate smartphone apps.”
- **Make health platforms / portals, like MyChart, more accessible by designing them to be more intuitive to navigate, more accessible to people with disabilities, and to those who are not proficient in English.** Dr. Lee thinks that it is only a matter of time before these challenges get worked out. “Telehealth has been around for a while, but it’s really in the past year that a wider range of people have experienced this. So new problems are probably being identified and issues are probably being raised. I think we’re still in the learning stage as to what we can improve and how we can make this more accessible and usable across people of all abilities,” she adds, “I think there’s potential to improve how different apps, different healthcare related services ... can be accessed on different platforms. The health portals are being used now, so it is urgent that accessibility is ramped up quickly.”

Program Analyst Paulo Salta with the San Francisco Department of Disability and Aging agrees,

“We have to make sure that it’s accessible. Forcing whoever is creating the portals to make sure that they think about linguistic abilities of the user.” Salta also urges portal creators to focus on function over style by “thinking about not making it attractive to someone who is 20 or 30, but making it accessible to someone who is over 60, because they don’t care if the health portal is fancy or pretty. What matters is to make it accessible.”

Wellness Coordinator Angela Di Martino at the Curry Senior Center in San Francisco adds that she’s concerned that people with disabilities are not getting the service they deserve. “We have some clients with hearing issues, as well as low-vision clients.” Di Martino doubts that the agencies, “are anywhere near able to easily serve those groups.”

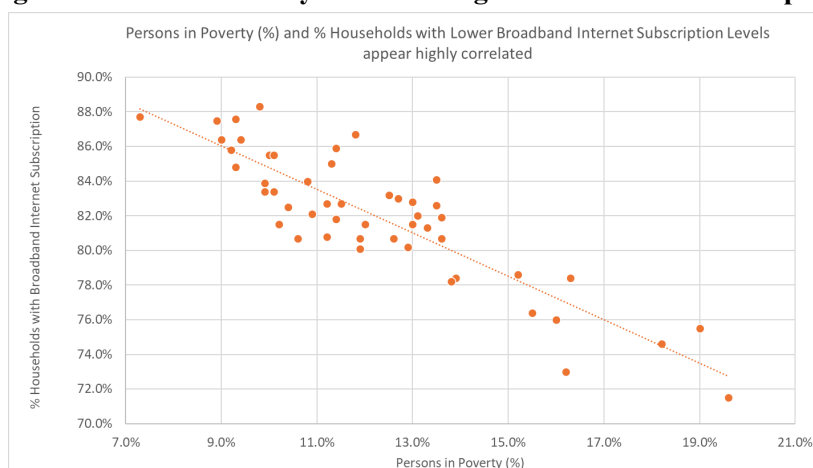
ACCESSIBILITY

How do we increase access to telehealth to make it possible for all Americans to benefit from these services?

Mapping the Digital Divide. It is estimated that 85% of households in the nation have a broadband internet subscription.¹⁰⁸ Evidence shows, however, that vast disparities exist among those who can afford broadband, the level at which broadband services are evenly spread across areas of the country, and the quality and speed of the broadband that is available. At this point, we don’t even have a reliable or complete analysis that shows where, exactly, broadband is available. For beneficiaries to have equal ability to access telehealth services, quality broadband must reach every area of the country.

The Center for Medicare Advocacy analyzed U.S. Census Bureau data, looking at the percentage of people living in poverty on a state level and the percentage of households with broadband internet subscriptions. Table 1 below clearly shows a reverse correlation between the two. This analysis corresponds with additional evidence that supports a link between higher incomes and higher rates of broadband subscription at the national level.¹⁰⁹

Table 1. Percentage of Persons in Poverty vs. Percentage of Broadband Subscriptions



Disparities in being able to access broadband has wide-ranging ramifications. The U.S.

Government Accountability Office (GAO) published a 2020 report in which it concluded, “Lack of access to broadband poses challenges to accessing telemedicine, telework, remote instruction, and resources for home schooling, as well as e-commerce.” Furthermore, “people in unserved or underserved areas, low-income families, some minority groups, and tribal communities are disproportionately affected by this lack of broadband access, often referred to as ‘the digital divide.’”¹¹⁰

Below is a summary of other key insights¹¹¹ drawn from analysis of broadband subscription trends:

- Urban residents have higher rates of broadband subscriptions than those in rural areas.
- Higher rates of connectivity coincide with higher income and education levels (key indicators of socioeconomic status).
- Lower levels of broadband connectivity are associated with households that rent rather than own a home, households with limited English proficiency,^{††} and households with at least one person who is disabled.
- Households headed by people 65 and older were less likely to have broadband Internet service (73% versus 88% for those between 45 and 64 years).

Not All Broadband Is Created Equal. While one of the foundational elements to accessing telehealth is the ability to tap into broadband, anyone who has ever struggled to access a Zoom meeting or maintain a video connection has experienced the reality that not all broadband access is equal. There is a wide swath of speeds that are considered “broadband”, and primarily it’s speed that is key to making sure connections are stable and fruitful. In fact, “speed” is considered the single most important factor in determining the “quality” of a person’s broadband connection.¹¹²

Defining “Broadband”. With its role in regulating interstate and international communications, the Federal Communications Commission sets benchmark speeds for what it constitutes as “advanced telecommunications capability” – or what is more colloquially known as “broadband”. This term describes services and facilities with a transmission of 25 megabits per second download speed and 3 megabits per second upload speed (or “25/3”).¹¹⁵ Megabits per second (Mbps), the standard measure of broadband speed, refers to data transfer rate – the speed that information is downloaded and uploaded to a user’s device.¹¹⁶

Measuring Broadband

Download vs Upload Speed

The most widely used methodology to assess the quality of broadband connections is to consider upload and download speeds as separate measures. Download speeds impact the rate at which we pull content down from the internet (i.e. streaming TV, music, and clicking through websites). Upload speeds, on the other hand, are crucial for telehealth services because they determine how fast we can share content from access points like computers or smartphones. Upload speeds determine how we are seen and heard by those on the other end.¹¹³ Content being shared could include video conferencing, voice, and files. Upload and download speeds vary from provider to provider, and often, download speeds are faster than upload speeds¹¹⁴

^{††} A “limited English-speaking household” is defined the U.S. Census Bureau as a household in which there is no one aged 14 years and over who speaks English at home or who speaks English “very well”.

A Call to Action. The transmission threshold of 25/3 was set by the FCC in 2015,¹¹⁷ and in its *2021 Report Card for America's Infrastructure* the American Society of Civil Engineers, the nation's oldest engineering society, concluded that 65% of the counties in United States have connection speeds lower than the FCC's definition of broadband.¹¹⁸ Additionally in 2021, the GAO conducted its own study and concluded that the FCC's current minimum benchmark speeds are "too slow to meet many small business needs."¹¹⁹ These include access to upload speeds that allow businesses to conduct "internet-based video/voice calls" and "upload large files or large amounts of data" – needs that can also be applied to the types of activities required for telehealth engagement.

In March 2021, a bi-partisan letter sent by Senators Michael Bennet (D-CO), Angus King, Jr. (I-ME), Robert Portman (R-OH), and Joe Manchin (D-WV) to agencies within the Biden Administration urged that the federal government update standards for high-speed broadband to reflect current needs:¹²⁰

"We should make every effort to spend limited federal dollars on broadband networks capable of providing sufficient download and upload speeds and quality, including low latency, high reliability, and low network jitter, for modern and emerging uses, like two-way videoconferencing, telehealth, remote learning, health IoT, and smart grid applications."¹²¹

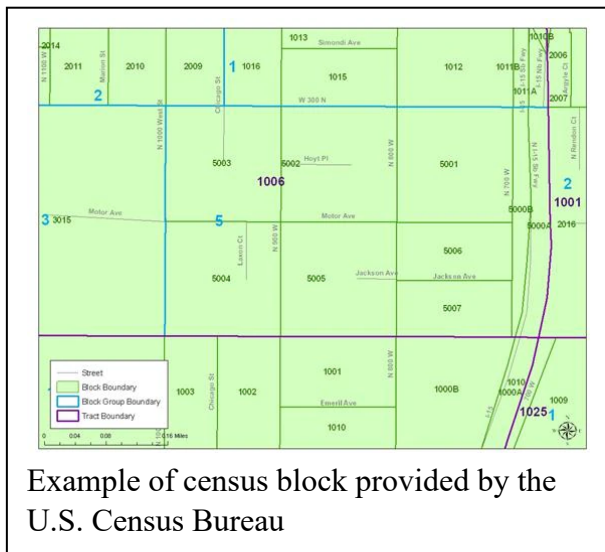
The Senators requested a minimum of 100 megabits per second for both download and upload speeds, which would change the benchmark from 25/3 Mbps to 100/100 Mbps.

Despite GAO's study and Congressional push to increase the transmission speeds, however, the FCC has remained resolute. Its *2021 Broadband Deployment Report* concluded that the 25/3 Mbps benchmark should be maintained and was sufficient to enable users to receive high-quality voice, data, graphics, and video telecommunications,¹²² and that the current benchmark continues to meet the requirement that "advanced telecommunications capability is being deployed on a reasonable and timely basis" to all Americans.¹²³

Imperfect Mapping. In addition to the debate around data transmission thresholds, there is also concern around the FCC's mapping and definition of broadband availability around the nation. In a 2020 report, the GAO stood by a conclusion it originally drew in 2018 that "the FCC's definition of broadband availability can lead to overstatements."¹²⁴ The FCC does not dispute this issue. In its 2021 report, the FCC admitted that its analysis "could overstate the coverage experienced by some consumers, especially in large or irregularly-shaped census blocks. However, these data nonetheless remain the best and most granular data available for our analysis at this point in time."¹²⁵ Otherwise stated: "It's not perfect, but it's good enough."

FCC policy impacts the lives of older adults and those with chronic health conditions that rely on services from the government. Paulo Salta, a Program Analyst, with San Francisco's Department of Disability and Aging Services, highlights the need for better benchmarking: "We have to make sure that there is a data baseline that is high enough for everyone to access virtual services for any of our services they want," according to Salta, "and there needs to be a push from the policy side to make sure that these internet providers are at least hitting that baseline – that minimum bandwidth for everyone."

In terms of telehealth, relying on measures and data that’s “good enough” might be a significant stumbling block for those individuals who need critical healthcare services. Diane Ramey, Vice President of Medicaid Services, for the Ohio District 5 Area Agency on Aging in Ontario, Ohio notes that broadband issues are serious. “It’s a real challenge. Even our staff have some real dead areas where it’s just so slow. If our staff are having those dead areas,” Ramey adds, “then the individuals themselves don’t have that as an option either. Or it’s so slow that doing a face-to-face video is going to be really choppy and not be very functional. I think you’re going to have some real challenges in those rural communities.”



How Access Mapping Works. The FCC relies upon broadband providers to self-report where they offer internet access twice a year.¹²⁶ Since 2014, the FCC has collected data at the census block level.¹²⁷ These blocks are statistical areas that are bounded by visible features, such as roads, streams, and railroad tracks (see image to the left).¹²⁸

Unfortunately, the FCC data may not be fully accurate. The data potentially overestimates broadband availability since, if broadband is available to *at least one household within the census block, the entire block is counted as covered.*¹²⁹ According to the FCC, this means that “it is not necessarily the case that every

household, housing unit, or person will have coverage from a given service provider in a census block that this analysis indicates is served.”¹³⁰ The GAO notes that the census blocks in rural parts of the country cover larger areas than in urban regions, and those providers may only offer service to a portion of the census block. The GAO contends that this has led to broadband deployment being “overstated, especially in rural – as well as tribal – areas.”¹³¹

As the GAO states, accurate data matters; it is “critical for programs that rely on FCC’s data to make decisions about federal investment to support expanding broadband access.”¹³²

Patchwork Connections. Given that providers may only deliver service to a portion of the census block, the FCC often does not have a clear map of where, *precisely*, broadband is delivered in the nation and where it is not. In May 2021, *The Verge* published a county-by-county analysis of households connected to broadband by comparing FCC data with that of publicly available data on the development platform GitHub, which released data developed as part of Microsoft’s Airband Initiative aimed at closing the rural broadband gap.¹³³ According to a joint statement by Chief Data Analytics Officer John Kahan and Chief Scientist Juan Lavista Ferres at the Microsoft AI for Good Research Lab, “Broadband data is not available to at least 14.5 million people, 11.3 million of whom live in

“We have some areas that are just dead.”

– Diane Ramey, Area Agency on Aging, Serving North Central Ohio

this country’s rural areas. Getting these numbers right is vitally important. This data is used by federal, state, and local agencies to decide where to target public funds dedicated to closing this broadband gap. That means millions of Americans already lacking access to broadband are invisible, substantially decreasing the likelihood of additional broadband funding or much needed broadband service.”¹³⁴

“The disparity between FCC reports and Microsoft data can be shocking,” according to *The Verge*, “In Lincoln County, Washington, an area west of Spokane with a population just a hair over 10,000, the FCC lists 100% broadband availability. But according to Microsoft’s data, only 5% of households are actually connecting at broadband speeds.”¹³⁵

Lynn Kimball is Executive Director of Aging & Long Term Care of Eastern Washington. She explains that “the communities we cover in North Ferry County Republic, it’s a three-hour drive from Spokane over mountain passes. Then we go all the way down south into Palouse, which is farms and small farming communities that are interspersed through the counties. It’s a diverse service area, so definitely [broadband] experiences vary a lot from place to place.”

“We have lots and lots of pockets where there’s just nothing. There’s not much you can do. We live in a very mountainous region. There’s just nothing there. You can’t put towers everywhere.”

– Eva Veitch, Director of Community Living, Region 10, Colorado

In another time zone and over a thousand miles away, Eva Veitch, Director of Community Living Services for Region 10, a council of government (COG) in Montrose, Colorado, which serves six counties over a 10,000 square mile region, sees similar challenges in broadband connectivity. “I still can’t get the broadband that I’d like to have at my house, and I live within the city limits of Montrose,” she explained.

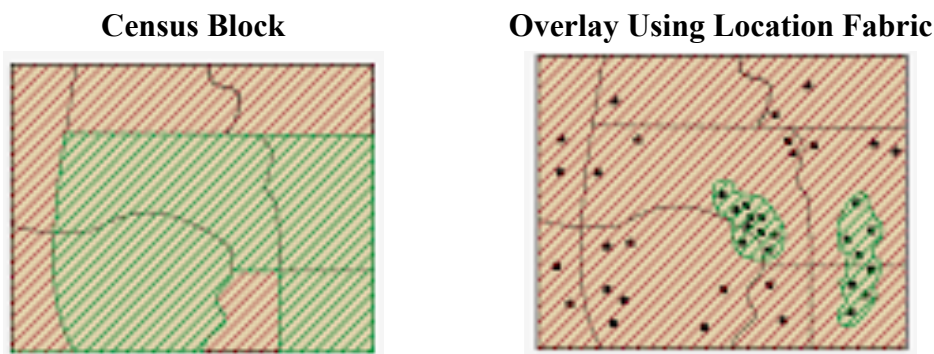
Improvement on the Horizon (Broadband DATA Act). In 2020, the Broadband Deployment Accuracy and Technological Availability Act¹³⁶ (Broadband DATA Act) was signed into law.¹³⁷ Among other things, the Broadband DATA Act required the FCC to improve the accuracy of the broadband data the agency collected. One way this will be achieved is to require that the FCC collect service availability data on a granular level from wired, fixed wireless, and satellite broadband providers. The GAO explains the process in its September 2021 report *Broadband: FCC Is Taking Steps to Accurately Map Locations That Lack Access*.¹³⁸ According to the report, the FCC is required to develop a “map-ready dataset”, which is a dataset that can be integrated onto a map, that will outline all broadband serviceable locations in the United States and

“In our region, we’re still quite a way out from really reliably considering telemedicine. We have areas where they do not have access to the internet. So, if they wanted to participate in telemedicine, I’m not sure how they would do that. I’m not even sure a hotspot would work in some of those places.”

– Eva Veitch, Director of Community Living,
Region 10, Colorado

territories. This dataset would also include location data that can be used to pinpoint specific areas across the nation. This is referred to as location “fabric”. The GAO states that once this location fabric is developed, it “will represent a more precise and granular means of mapping existing and needed broadband deployment sites than would be possible through FCC’s current maps.” The location fabric will show the availability of broadband to individual locations rather than by Census blocks. The FCC received \$98 million in appropriations in December 2020 to enable it to carry out the responsibilities under the Broadband DATA Act.

The FCC has already made progress.¹³⁹ In March 2021 the FCC announced¹⁴⁰ that it would be updating its current broadband maps with more detailed and precise data by collecting first-hand accounts of broadband availability and service quality directly from consumers as part of its Broadband Data Collection program.¹⁴¹ “Far too many Americans are left behind in access to jobs, education, and health care if they do not have access to broadband,” FCC Chairwoman Jessica Rosenworcel stated in the announcement. “Collecting data from consumers who are directly affected by the lack of access to broadband will help inform the FCC’s mapping and future decisions where service is needed.”¹⁴²



Images developed by the GAO (GAO-21-104447) – Green areas show broadband availability.

Using location fabric as the base, broadband providers will be able to report their service areas in a way that will show more accurately which specific areas do and do not have broadband access. The figures above were created by the GAO to illustrate the difference between how broadband service areas would be defined using Census blocks compared with a more accurate overlay using location fabric. The two images show the same geography, but it is clear that the Census block data map gives an overestimation of the area receiving broadband services.

DISPARITIES WATCH

Tribal lands continue to face significant obstacles to accessing broadband, according to the FCC. These lands are disproportionately in rural areas, and the FCC notes factors impacting the lack of broadband access include capital investment costs. “The remote, isolated nature of these areas, combined with the challenging terrain and lower incomes, increase the cost of network deployment and entry, thereby reducing the profitability of providing service.”¹⁴³ The FCC concluded that further work is needed to spur broadband deployment in these areas. Significantly, the FCC recognized that the disparity issues are occurring because the for-profit sector determined it was not profitable enough to provide broadband to tribal lands.

Urban vs. Low-Income Urban. As noted in the Disparities Watch above, there is concern that private internet service providers are unfairly determining who gets access to fast broadband services. The availability can be measured by identifying which markets are invested in, which markets are underinvested in, and where services are more expensive. In 2019, The University of Southern California Annenberg Research Network released the report “*Who Gets Access to Fast Broadband? Evidence from Los Angeles County 2014-2017*”.¹⁴⁴ Researchers investigated whether internet service providers (ISPs) were neglecting investments in low-income areas and communities of color. The analysis found that within LA County – the largest county in the nation by population¹⁴⁵ – broadband competition is more likely in more affluent communities, while in low-income areas, broadband competition dropped. The effects of this are that low-income residents have fewer broadband options, which, according to researchers, is typically associated with lower quality service and higher prices.

The conclusion regarding broadband disparities is supported by an investigation by the Analysis Group, an international economics consulting firm. As any familiarity with typical market force behaviors would lead one to anticipate, Analysis Group research found an association between the number of competitors in a market and both the price and speed of the internet offered. “Each additional competitor offering broadband in a higher speed category” the Analysis Group found, “will increase the probability that other broadband providers in the market will offer broadband at those higher speeds by 4 to 17% on an annual basis.”¹⁴⁶

Analysis conducted by the USC Annenberg researchers also suggest that broadband underinvestment is most severe in Black communities, leading to the assessment that race and income are strong predictors of service availability. The report concludes that because ...

“... broadband investments in the United States are made almost exclusively by private operators, this increases the potential for market failures, threatening the equitable development of digital infrastructure.”¹⁴⁷

A September 2021 GAO Broadband report also noted that people disproportionately impacted by lack of broadband access live in rural areas or “economically disadvantaged areas where low returns on investment have not attracted new or expanded broadband infrastructure deployments by providers.”¹⁴⁸

Angela Di Martino, a Wellness Program Manager, has been with the Curry Senior Center in San Francisco since 2014. The center provides services to low-income seniors and serves a diverse community that speaks multiple languages. Di Martino has seen firsthand the struggles that occur in a low-income urban environment when individuals can't afford their own broadband and must rely on internet provided through other means. "Even when they have internet that's provided in a building" according to Di Martino, "it's often spotty and then it gets throttled because you're in an apartment with lots of other people using it often at the same time."

In discussing the lack of equal access to broadband for lower-income communities within urban areas, Paulo Salta, Program Analyst at the San Francisco Department of Disability and Aging Services notes, "It fluctuates sometimes to people in underserved communities. We need to make it a standard across the board where we lift everyone up to a baseline." Salta adds, "In underserved communities, what they're presented is an ISP (Internet Service Provider) company that's presenting a lower bandwidth. But there could be other options out there. We've got to force these ISPs to come up with their bandwidth levels, too." Salta concludes, "This goes back to the FCC policy level where we have to make sure there is a data baseline that is high enough for everyone to access virtual services. That needs to be a push from the policy side to make sure that these internet service providers are at least hitting that baseline – that minimum bandwidth for everyone."

Should broadband be considered a public utility?

Public utilities provide goods and services to the general public. They may include common carriers^{‡‡} in addition to corporations that provide services like electricity, water, and cable television.¹⁴⁹ Given its increasingly essential day-to-day role for individuals of all walks of life across vastly different areas of the country, is it time to shift broadband from being considered a service – subject to the whims of competitive market forces – into a universally available, regulated utility?

Dr. Michael Rappa, founding director of the Institute for Advanced Analytics, outlined six common characteristics of utilities in a paper published in *IBM Systems Journal*.¹⁵⁰ What makes a service a utility, according to Dr. Rappa, is shaped by a combination of requirements or common characteristics. Those six requirements are:

1. **Necessity:** Dependence on utility service to fulfill daily needs.
2. **Reliability:** The utility must be readily available when and where a person needs it (essentially, a continuous service is needed).
3. **Usability:** Simple to use, no matter how technologically complex it might be to produce it.
4. **Utilization rates:** Sufficient production capacity must be installed to handle times of variability of usage (i.e., peaks and valleys).
5. **Scalability:** Can exhibit economies of scale that favor larger producers over smaller ones.
6. **Service exclusivity:** Drawing upon the economies of scale aspect of a utility, there can be a

^{‡‡} A [common carrier](#) is legally defined as a person or commercial enterprise that transports passengers or goods for a fee and establishes that their service is open to the general public (e.g., railroad, airline, taxi service).

benefit from a government granting exclusive franchise (or a monopoly) in a geographic region to a public utility to provide the service. With that monopolistic provision, the utility company would be subject to regulation of service and how it is priced.

In Support of Broadband as a Public Utility. Based on the six criteria above, broadband should be classified as a public service. The United States Department of Agriculture (USDA) appears to agree. On a webpage titled “e-Connectivity for all rural Americans is a modern-day necessity.” It states that “reliable and affordable high-speed internet e-Connectivity, or electronic connectivity, is fundamental for economic activity throughout the US.” The USDA continues: “Access to high-speed internet is vital for a diverse set of industries, including agriculture production, manufacturing, mining, and forestry and acts as a catalyst for rural prosperity by enabling efficient, modern communications between rural American households, schools, and healthcare centers as well as markets and customers around the world.”¹⁵¹ The FCC also recognizes the critical nature of broadband, explaining that “broadband has gone from being a luxury to a necessity for full participation in our economy and society – for all Americans.”¹⁵²

“We’ve gotten to this place that it’s like, 60 or 70 years ago, when a lot of folks didn’t have a telephone. It’s exactly the same discussion. We made a decision as a country and as a society that if you want a phone, you could have it, and all the infrastructure was built to make sure you had a phone because it was deemed a necessity. The internet has been coming into that space.”

– Aaron Bradley, Director, East Tennessee Area Agency on Aging

On an individual household level, it is especially compelling when, during times of a public emergency, the nation relies on broadband as a support system for core needs such as health and education. According to the Census Bureau, “The COVID-19 pandemic ... dramatically shifted the way children were being educated,” with nearly 93% of households with school-age children reporting some form of “distance learning” from home.¹⁵³ Similarly to the emergence of disparities around access to telehealth services, in the educational realm, digital inequality impacted the odds of children from lower-income households being able to access online resources. “Lower-income households,” according to the Census Bureau, “were less likely to report computer and internet availability for educational purposes, compared with high-income households.”¹⁵⁴

“Internet connectivity is a utility. It’s like water. Everyone needs it.”

– Paulo Salta, San Francisco Department of Disability and Aging Services

Classifying broadband as a public service could potentially alleviate some of the digital inequality we’ve identified because utility companies would be obligated “to serve any and all users regardless of how profitable it may be for the utility.”¹⁵⁵

Aaron Bradley, Director of the East Tennessee Area on Aging & Disability, reasons that broadband availability needs to be addressed both at the federal and state levels. “A lot of that discussion is going on in Tennessee,” Bradley reflects, “where we say we have to push the internet out to the very remote areas of our state because it’s becoming a necessity. Telehealth doesn’t work without it. And if we’re going to move toward telehealth, we have to move through that [federal and state] partnership.”

“Once you have it, you can’t put the genie back in the bottle and go back to no internet in your home. It just doesn’t work. They depend on it.”

– Angela Di Martino, Curry Senior Center, San Francisco

Broadband as a Luxury. Broadband may be a luxury for some without access, rather than a requirement for daily living, as when the costs to access broadband services outweigh the potential benefits of the services that access would provide.

“[Older adults] are already prioritizing their budget for the month. You know, ‘I’ve got to get food. I’ve got to get my medications. I’ve got to pay for transportation. The internet is a luxury. Just like cable television. We don’t have to have it. It’s a luxury.’”

– Regan McManus, Director, INCOG Area Agency on Aging, Tulsa, Oklahoma

Regan McManus, Director of INCOG Area Agency on Aging, provides programs and services to older adults in the Creek, Osage, and Tulsa counties in Oklahoma. The population she serves are far removed from the needs of broadband. According to McManus, the cost-benefit ratio of affordability vs. service weighs heavily towards the affordability end of the spectrum in her experience: “We don’t have all the technological advances in our daily lives like people on the coast are already used to,” she explains. “It’s got to be affordable or ‘low to no-cost’ is what I call it. It’s getting the access to them. It’s literally getting them a way that they can have an affordable way to have that device, that tablet, that laptop, whatever it may be. And an affordable way to have no-cost Wi-Fi availability.”

DISPARITIES WATCH

Examples of Low-Cost Options Currently Available for Connectivity & Equipment:

Background. The FCC’s principle of “Universal Service” holds that all people living in the United States should have access to communications services. Universal service is the cornerstone of the Communications Act of 1934, which helped make telephone service ubiquitous throughout the nation. The Telecommunications Act of 1996 expanded the goal of universal service to include increased access to high-speed Internet at reasonable rates.¹⁵⁶ The Universal Service Fund (USF) includes four programs: Connect America Fund, Lifeline, Schools and Libraries, Rural Health Care, along with the Rural Digital Opportunity Fund.

Connectivity for Low-Income Individuals / Households

- **Connect America Fund (CAF).** The program (formally known as High Cost Support) is designed to ensure that consumers who live in rural, isolated, and high-cost areas have access to voice and broadband services at rates that are “reasonably comparable” to those in urban areas. It does this by allowing eligible carriers who service those areas to recover some of their costs from the federal Universal Service Fund.¹⁵⁷
- **Rural Digital Opportunity Fund.** This program distributes approximately \$5 billion to broadband providers to reduce the costs of constructing voice and broadband networks to remote areas.¹⁵⁸ While both the Connect American and Rural Digital Opportunity funds are aimed at providers, they are included in this list because they potentially impact the ability for low-income individuals/households in rural, hard-to-reach, or high-cost areas.
- **Lifeline.** This program is the FCC’s Universal Service Fund. The goal is to make communication services more affordable for low-income consumers. It offers subscribers a discount on qualifying monthly telephone service, broadband internet service, or bundled voice-broadband packages purchased from participating providers. The program provides up to a \$9.25 monthly discount on service for eligible low-income subscribers and up to \$34.25 per month for those on Tribal lands. Eligibility requirements include having household income that is at or below 135% of the federal poverty guidelines or if a person uses SNAP, Medicaid, or other federal assistance programs. More information can be found [here](#).¹⁵⁹

Broadband Infrastructure Support for Organizations

- **Broadband ReConnect Program.** Launched in 2018 and funded by the USDA, it provides loans and grants to bring high-speed internet to rural areas that lack sufficient access to broadband. The program fosters private-sector investment in broadband infrastructure. The funds can be used for the costs of construction, improvement, or acquisition of facilities and equipment needs to provide broadband services. Applicants can be either non-profit or for-profit organizations. More information can be found [here](#).¹⁶⁰

DISPARITIES WATCH

Angela Di Martino, Wellness Program Manager at San Francisco’s Curry Senior Center, points out that “right now AT&T has a \$10 a month and Comcast has a \$9.95 (low-income service). Comcast has restrictions on who’s got access to that.” The devil is in the details, however, as Di Martino cautions: “You have to be over a certain age and under a certain income. There’s a lot of people at the level where they make a little bit too much or they’re not old enough yet. Or they’re old enough, but they have too much money.” The limitations outlined by the participating providers for low-income assistance might leave individuals in need caught in a digital no-man’s land.

- **Affordable Connectivity Program.** Launched by the FCC on December 31, 2021 as the successor to the temporary Emergency Broadband Benefit and in accordance with the Congressional directives in the Infrastructure Investment and Jobs Act, this \$14.2 billion permanent program allows eligible households to apply to receive up to \$30 per month discount toward internet service and up to \$75 month for households on qualifying Tribal lands. Furthermore, eligible households can receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers if they contribute more than \$10 and less than \$50 toward the purchase price.” Eligibility requirements include, but are not limited to, a household income that is at or below 200% the federal poverty guidelines or meeting the eligibility criteria for a participating provider’s existing low-income program. More details on the

program and eligibility criteria can be found [here](#).¹⁶¹ A large array of internet service providers (ISPs) have elected to participate in this program. They range from AT&T to T-Mobile USA, to Verizon. The full list can be found [here](#).

DISPARITIES WATCH

Angela Di Martino also points out that potentially challenging application processes could pose barriers. “There’s got to be a lot of hand holding. Most recent example is the [FCC’s] Emergency Broadband Benefit, which just came out of the stimulus package. It gives six months of up to \$50 per month for home internet costs, but people have to apply for it. And it’s a very cumbersome application process.” Di Martino recalls, “We probably did a few weeks of intense outreach – actual one-on-one help. I did a few myself. One person took half an hour, which I thought was good. Another person took a couple of days of an online application and following up with the provider to fix a name spelling. The name was off by one letter or a middle initial, and then it caused a rejection. And then you have to start over.”

Access to Equipment for Low-Income Individuals / Households

- **Lifeline Assistance “Obama Phone”.** As part of the Lifeline Program funded by the FCC, qualifying low-income Americans can receive free cell phones, voice minutes, and texting services. These flip-phones or smartphones are often referred to as “Obama phones” because of the program’s rapid expansion of cell phone use during Barack Obama’s presidency.¹⁶² Three major providers offer the service on a national level: Safelink Wireless, ReachOut Wireless, and Assurance Wireless, and while the program is sponsored by the federal government, it is regulated by state government. This means that eligibility requirements will likely vary slightly from state-to-state. People who still have a flip phone could be eligible for an upgrade. Jose Picazo, Tech Navigator at the Curry Senior Center in San Francisco, recommends, “If individuals on Lifeline still have a flip phone, they can reach out to their current provider and see if they qualify for the free 4G phone. Many phone service providers are offering free upgrades for clients who have older phones still on the 3G network.” More information on the program can be found [here](#) and information about eligibility can be found [here](#).¹⁶³

DISPARITIES WATCH

Free Phone and Minutes, but Precarious for Telehealth Needs. Due to the public health emergency, under the Emergency Broadband Benefit, the FCC temporarily expanded its Lifeline “Obama phone” service offerings to include unlimited talk, text, and data unlimited data.¹⁶⁴ Before the pandemic, the Obama phone program offered 250 minutes of free wireless voice service per month.¹⁶⁵ Once the free minutes were used up, however, the individual might not be able to afford to add more minutes and may be left without an option for communication. Diane Ramey, Vice President of Medicaid Services at the Ohio District 5 Area Agency on Aging cautioned that, “with our individuals, we would have to be careful when we called them. We could use all their minutes for the month in one phone call. Then, they have no way to access any other kind of emergency care. “They had limits on their data,” Di Martino notes. “The clients didn’t have the money to spend on a lot of data every month. And a Zoom call, we learned, takes up about two gigabytes of data. That would be their monthly limit.” Di Martino shared that the clients she helped “were like, ‘Well, I could do one call that month.’” Since the expansion to unlimited minutes, text, and data is temporary, once the public health emergency ends, the access to telehealth services might be cut off for low-income

individuals in need.

DETAILED POLICY RECOMMENDATIONS FOR ACCESSIBILITY

- **Enforce and prioritize enhanced FCC broadband data collection and mapping.** The road to ensuring individuals can access telehealth services is paved through an accurate understanding of who has access to broadband services.
- **Ensure broadband is powerful enough to be usable.** Increase upload and download speeds to at least 100 mega bites per second. (And keep updating speeds to contemporary standards.)
- **Classify broadband as a public service.** This is key to ensuring all individuals in the United States will have access to broadband.
- **Make permanent the FCC’s Lifeline “Obama phone” expanded program benefits.** Under the Public Health Emergency, the program added unlimited data, text, and minutes to the program. For low-income individuals to be able to access telehealth services, it is vital t they continue to have the data to do so.
- **Under the FCC’s Affordable Connectivity Plan, combine the home internet discount with the Lifeline “Obama phone” program.** Currently, it is an either/or option – either internet service or a mobile phone – per household. Jose Picazo, Tech Navigator at San Francisco’s Curry Senior Center, notes that “the Affordable Connectivity Program only applies to one service per household, so if a client is applying the benefit to their phone service, then it cannot be applied to their internet services, too.”

PEOPLE / PEOPLEWARE

How do we ensure that all Medicare beneficiaries have the skills and personal supports they need to effectively utilize telehealth services?

There is a term that circulates within information technology circles that’s meant to describe how important it is for an end-user to have the right level and set of skills to derive the greatest value possible out of a given technology. “Peopleware” is the third component of the IT triad that also includes hardware and software.¹⁶⁶ It means that “without user interaction, most computers would be useless machines.”¹⁶⁷ Translating this to telehealth – and in particular to the abilities of Medicare beneficiaries to access and gain ultimate value from telehealth services – understanding and addressing peopleware needs is just as essential as having the right equipment, software and broadband infrastructure. Without the former, the latter are essentially meaningless.

“It’s the learning curve that’s really intimidating. And just knowing how to go about it. ‘Who do I call? Do I call Best Buy and ask for a laptop? What’s a laptop? How does it work? What else do I need to go with it?’ It’s a really intimidating process.”

– Joan Marshall, Respite Program Coordinator, Connecticut’s Senior Resources AAA

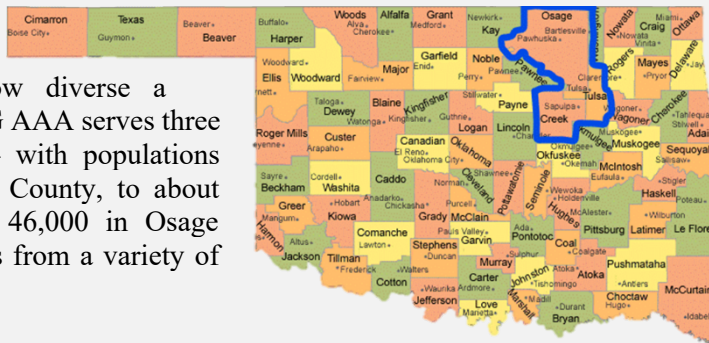
According to Pew Research Center, “digitally ready” Americans – those confident in their digital skills – tend to be disproportionately under 65.¹⁶⁸ Challenges that need to be addressed to ensure that older adults are equipped to participate in telehealth range from basic technology skills, to mindset, to health literacy. For those with disabilities or some form of pertinent limitations, additional accommodations must also be provided.

Age Is Just a Number, But Experiences Define Us. It might be easy to think about the Medicare population through a general lens of “older adults and those with disabilities”, but the United States is a vast landscape that supports a tapestry of experiences that shape our belief systems, communication habits, skills, and mindsets. We’re influenced by our geographic settings, our culture, our loved ones, and our work life (or lack thereof). Medicare beneficiaries are no different. Their diverse backgrounds, perspectives, and experiences are just as varied as any other group of individuals in this country, so when creating telehealth policy, we must cast a wide enough net to understand and address all individuals’ needs with a perspective that goes beyond focusing merely on “age” and “disabilities”.

⚠️ DISPARITIES WATCH

Diverse Populations & the Senior Divide: Case Study – Tulsa, Oklahoma

Regan McManus, Director of the INCOG Area Agency on Aging (AAA) in Tulsa, Oklahoma, understands how diverse a Medicare population can be. The INCOG AAA serves three counties – Osage, Creek, and Tulsa – with populations ranging from almost 670,000 in Tulsa County, to about 72,000 in Creek County, to close to 46,000 in Osage County.¹⁶⁹ McManus serves older adults from a variety of cultural and professional backgrounds.



Demographic Variety. The three counties, while geographically contiguous, have some striking differences. For example, 15% of Osage county’s population is comprised of Native Americans (the national average is 1.3%), while 13% of Tulsa County’s population is made up of a Latino population and almost 15% of the population speaks a language other than English at home. The other two counties have a very small Latino population (approximately 4%).

Historical Impacts. In Tulsa, the community is challenged by a complicated history. McManus explains that her AAA serves a neighborhood that was impacted by the Tulsa Race Massacre. The Greenwood District in Tulsa was nationally recognized at the beginning of the twentieth century for its affluent African American community. In 1921, however, Tulsa’s thriving business district and residential area (referred as “Black Wall Street”) was looted and burned by rioters, resulting in 35 city blocks demolished and as many as 300 dead.¹⁷⁰ The area is still suffering the impacts of that deadly day. “We serve a large population in that neighborhood,” McManus comments, “They’re extremely low income, they are minorities, and they have low education. And they have trust issues with any type of local government because of the history there.”

Rural vs Urban Qualities. Population density is also quite different. While in Tulsa County there are

over 1,000 residents per square mile, there are only approximately 21 per square mile in Osage County. While not technically classified as rural due to the proximity to Tulsa, Osage and Creek counties feel rural in nature. According to McManus, this can impact interest in technology. “In those two rural-like counties, the use of computers and the internet,” explains McManus, “... is limited. A lot of it is either they do not want to learn the technology or they have no interest.” Economics are also an issue. “They cannot afford to buy a tablet or a smartphone or a computer,” McManus says. “Then add Wi-Fi on top of that, they just can’t.”

Senior Divide. McManus points out, however, that there is another population of older adults – retired professionals – who approach technology much differently. “I see the retired professionals that are living above the poverty level. They’re on their iPhones. They’re Face Timing. They’re Zooming. They Zoom with their families. They get on Zoom meetings.” McManus contrasts this with the other populations served in her region, “We typically serve participants living below the poverty level – blue collar workers, stay at home moms – who didn’t work in a professional field per se. That’s the big difference. Just those experiences.”

DISPARITIES WATCH

COVID-19 exacerbated pre-existing racial disparities¹⁷¹ and unfortunately, the COVID-driven expansion of telehealth services was not immune to this pattern. Despite the fact that CMS telehealth waivers increased the overall number of primary care physicians (PCPs) offering these services, racial disparities were seen in (1) the number of beneficiaries that had PCPs who offered telemedicine, and (2) the number of beneficiaries who had the technologies needed for telemedicine.¹⁷² For those who did access telehealth services, the way in which they accessed it was also impacted by racial disparities. In an analysis of telehealth visits of over 162,000 patients, patients who were older than 65, Black, Hispanic, and/or from areas with low broadband access were less likely to use video visits.¹⁷³

Mindset. Prior to the pandemic, Pew Research Center conducted a study that examined key barriers to older Americans’ adoption of and attitudes towards technology. According to their research, “Older adults face unique barriers to adoption [of technology], ranging from physical challenges to a lack of comfort and familiarity.”¹⁷⁴ In questioning experts around the nation about factors that impacted older adults’ mindsets toward technology, we heard answers that ranged from being embarrassed that they did not know how to approach technology (let alone use it), to general distrust of technology and the government, to apprehension due to physical or cognitive limitations, to sheer frustration. “With our aging population,” Eva Veitch, from the Region 10 AAA in Colorado explains, “if they try it a couple of times and it doesn’t work, they’re done. They will just give up.”

“I still talk to some who are like, I’m never going to do that. Don’t ask me to do that. Don’t make me do that. If that’s how I have to see my doctor, I just won’t see my doctor. We have some communities that are very, very old school, old West.”

– Eva Veitch, Director of Community Living Services in Colorado’s Region 10

For some older adults, the idea of using technology to see their doctor is simply not a consideration.

Eva Veitch explains their mindset: “I think especially some of our old-older adults are never going to be comfortable with that. I’d say those 85 and up.”

Social structure can make a positive difference, however. Those fortunate enough to have someone in their lives – a family member or a friend – who can help prod them to adapt to new technology or even serve as tech support usually have an easier time. Veitch adds that “unless they have a family member there with them to help guide them through it, they’re just not going to feel comfortable. They’re not going to trust technology. They’re not going to understand how to communicate. And if you throw any cognitive type of challenge in there? Forget about it.”

“It’s those people who don’t have anyone – who don’t drive, who don’t understand the internet, who don’t have a computer, who don’t really want a smartphone, don’t have someone to help ... those are the people that are just going to be completely out of the picture, and are the hardest to reach and probably would benefit the most.”

– Joan Marshall, Respite Program Coordinator, Connecticut’s Senior Resources Agency

Reaching those who are alone and isolated is a challenge whether that person lives in a rural or urban environment. In San Francisco, Angela Di Martino, Wellness Coordinator at the Curry Senior Centers contends that “the people who are so isolated to start with, they find it hard to come out of their home for things. Those same people find it hard to get on the Zoom call with others.”

Fear Factor. One challenge that also arose in Pew Research’s analysis of technology barriers for older adults is the fact that many older adults simply lack confidence in their own abilities to learn or properly use equipment.¹⁷⁵ Such fear could stem from a combination of factors, including lack of exposure, lack of knowledge, or a physical impairment such as poor vision or hearing.

Melissa Elliott, SVP of Programs and Services at the Region One Area Agency on Aging in Arizona serving Maricopa County explains that older adults “may know how to use email or something like that, but they don’t know how to get on Zoom or even what Zoom is. And in some cases, they didn’t even have technology.” Older adults who report that they have a disability, according to Pew Research Center, are less likely to use a variety of technologies, ranging from using the internet to using a tablet or smartphone.¹⁷⁶

The power of this fear could mean that even if equipment and access were provided for free, some older adults might still hesitate to adopt telehealth services. Such was the case when Diana Hoemann, Executive Director of Care Connection for Aging Services in Missouri, set up a program designed to provide access to computers, broadband, and equipment for her population to use. “We have a blood pressure cuff, a scale, a thermometer, and a pulse oximeter,” Hoemann explains. “We opened the program to seniors to come and use our equipment and our internet, because broadband is a big issue in the rural area.”

“Unfortunately, we didn’t really have any takers (for our free access program). We put it in the newspapers and sent information out to all of

those that have taken part in our center – the best we could to get the word out in the rural community. I don’t know if they have the capability to do it or if they’d rather physically visit a doctor in person.”

– Diana Hoemann, Executive Director of Care Connection for Aging Services in Missouri

Training. Almost every leader the Center spoke with at Area Agencies on Aging around the nation noted that even when an individual is open to using technology, here is a need for more investment in training. Some people need training from ground zero, others know their way around a smartphone, but not much else. Even for the relatively tech savvy, a telehealth service or online health service can be beyond their existing grasp. Those working at the Curry Senior Center in San Francisco noted, “For many seniors, email, messaging, YouTube, and web browsing fulfilled their needs in the realm of technology. Health portals and telemedical appointments brought a plethora of new obstacles and a steep learning curve ... On the flipside, COVID did provide that extra push to learn about health portals and, once trained, many will use it to refill prescriptions and message their doctor far more easily.”

There are three things. There’s the access to the Internet. That’s the highway to get there. There’s a device to use it, like your car. And then there’s the training. Like who’s going to teach you how to drive that car? Those are the three fundamental needs.

– Angela Di Martino, Curry Senior Center, San Francisco

The Power of the Personal Touch. During the height of the public health emergency, many AAAs were forced to quickly transition their services to a virtual platform ... including trainings aimed to help older adults learn about accessing virtual telehealth services. There is irony in being forced to use a virtual platform to teach people who don’t know how to access technology; the AAA representatives we spoke to noted the challenges. “Conducting virtual training is a lot harder than it sounds when you have a person who doesn’t know technology at all,” recalled Arlene Lugo, Program Director for Connecticut Tech Act Project at Connecticut’s Aging & Disability Services. Angela Di Martino of the Curry Senior Center in San Francisco noted that “you can do training virtually for people and they learn it like at 30-miles-an-hour, and then if you do it in person, they learn it like at 60-miles-an-hour ... I think the adults we work with learn a lot better in person. It’s just the nature of it.”

Fortunately, now that the immediate shock of the pandemic’s onset is behind us, there are often other ways to help bring older adults up to speed to critical telehealth technology. “A lot of older adults have some kind of technology,” explains Lynn Kimball, Executive Director, of Aging & Long Term Care of Eastern Washington, “but it is really how to use it, and how to navigate it, and getting one-on-one help. Because that one-on-one help is really what seems to make a difference.” This type of focused support is not without its own challenges, however: “It takes a lot of one-on-one assistance with some older adults to get them to be able to access and use the equipment,” Kimball explains. Kimball’s AAA utilizes staff volunteers to offset some of the time burden. “They help with [issues like] ‘Oh, your camera is off. Let’s mute. Unmute.’ All of those things

happen. ‘Why can’t I hear?’”

On the other side of the country, Dr. Mary Ann Spanos, Executive Director of the Chautauqua County Office for the Aging in New York, has similar thoughts about the power of one-on-one tech support. “When it’s something new, like technology, that personal touch is the most important thing for getting them comfortable with it. And once they’re comfortable, they’ll probably take off.”

Who Should Provide Training? With the experience of training older adults both before and during the pandemic, many Directors of AAAs with whom the Center for Medicare Advocacy spoke saw great benefit in AAAs or local senior centers doubling down on helping their constituencies secure the skills and confidence needed to realize the benefits of virtual care. For many, however, this would be an additional role on top of an already packed portfolio of responsibilities. Further Older Americans Act funding and program planning would be needed.¹⁷⁷

“One thing that would be hugely helpful, particularly for older people is some kind of funding for technology support. Someone to go out and walk them through how to access things the first time or be available if there’s a really important appointment that they absolutely need to be on ... to go out and get them set up and make sure everything works smoothly. I think for a lot of people, it’s that 5 or 10 minutes of assistance that makes or breaks whether it’s going to work for them.”

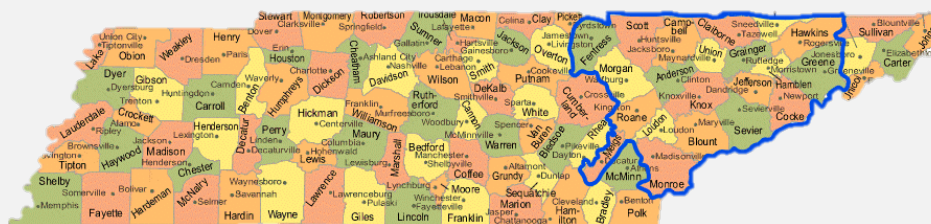
– Joan Marshall, Respite Coordinator at Senior Resources Agency on Aging in Connecticut

Supporting Those with Cognitive Limitations. Subjective Cognitive Decline (SCD) is the self-reported experience of worsening or more frequent cognitive challenges, such as a decrease in the ability to learn, remember, or make judgements.¹⁷⁸ The CDC estimates that almost 12% of adults 65 and older experience SCD, and of that group, over one-third (36.2%) live alone. Racial disparities exist here, too. The prevalence of SCD is slightly higher in Black Americans (12.8%) than in the white population (10.9%). Asian Americans have the lowest prevalence of SCD at 6.7%.¹⁷⁹ While older adults in general often face challenges in learning how to navigate new technologies to access telehealth services, those with SCD or diagnosable cognitive decline require extra support. One example of how the infrastructure for such support might be created is occurring in eastern Tennessee.

⚠️ DISPARITIES WATCH

Telehealth Services for Those with Dementia – Tennessee Model

In 1973, the Tennessee General Assembly established Human Resource Agencies (HRAs) to be the delivery system for social services through the state.¹⁸⁰ There are 9 HRAs across Tennessee, and at one of them – the East Tennessee Human Resource Agency (ETHRA) – one area of focus is to help people with functional limitations remain independent with the aid of supportive in-home services. Aaron



Bradley, ETHRA’s Administrator, explains that the types of functional limitations his organization focuses on could also influence the likelihood that an individual will see a doctor in person. Given these challenges to in-person care, ETHRA was focused on the role of telehealth even prior to the pandemic. “The telehealth issue came up on our radar prior to COVID because we worked with a lot of older adults and family caregivers, and we realized that due to their own limitations as a patient or mobility limitations, they were not getting in to see the doctor as often as they needed to,” Bradley explained. “So medications were not being updated, tests, and that kind of thing, were not being done. Of course, telehealth doesn’t get us to that point, but just having contact with a physician on a regular basis, a physician’s assistant or a nurse practitioner is extraordinarily valuable.” Bradley adds that telehealth, “is not going to replace the face-to-face doctor visits, but in between times, it can keep that patient connected and that family caregiver connected to the source of the medical care.”

Bradley is leading the way in tackling how telehealth services might be provided to older adults diagnosed with dementia who are aging in place in their homes. The East Tennessee AAA has partnered with The Pat Summitt Clinic at the University of Tennessee Medical Center, which provides specialized care and research in the area of Alzheimer’s disease.¹⁸¹ The two organizations are currently partnering on an Aging and Disability Resource Centers (ADRCs) grant administered through the Administration for Community Living (ACL) to examine potential solutions on accessing telehealth and virtual services.

While the grant is still in its early stages, Bradley explained the basic premise is as follows: The AAA partners with a professional case management agency (PCM). Under the grant, a PCM would provide licensed social workers to bring an iPad to the older adult’s home, set them up for a doctor’s appointment using a video connection (using Zoom, Teams, or something equivalent), and then social workers would clean the iPad and take it with them when the appointment was finished. Bradley explains that social workers were chosen because “they’re not providing medical service; they’re providing access to medical services.” With an eye on safety, Bradley adds that “they all have credentials so that the patient knows that the person is legitimate when they arrive at the door.” The grant is targeted for those who are diagnosed with dementia and who are either living alone but still “functioning reasonably well”, or who are living with a caregiver.

“We know this is a needed service in our community,” Bradley explained. “We know it needs to expand. We have to stay with some of the innovations to make sure folks don’t get left out of the health care system, because otherwise they will be. It’s just going to happen.”

In Bradley’s perspective, telehealth isn’t just for patients. It also helps caregivers. “It’s a great support to be able to provide services via telehealth so that the caregiver is not having to take off from work if they’re working. Or they’re not having to work with a patient that is difficult to transport. This is not just about the patient, it’s a way to support the caregiver as well.”

Health Equity, Empowerment, and Literacy. Even with the most advanced technology, widespread broadband access, and knowledge of how to navigate the emerging telehealth landscape, many older adults and people with disabilities would still face one significant obstacle to getting the most out of what telehealth services can offer: feeling empowered. The Department of Health and Human Services (HHS) describes empowerment in the context of telehealth as having “the confidence, the ability, and the opportunity to advocate for your health during appointments. ... Feeling empowered when it comes to your health care will help you achieve equity for yourself, your family, and others.”¹⁸²

The agency’s concept of health equity includes having “the ability” to advocate for yourself. HHS contends that part of feeling empowered is to “ask all the questions you need,” which, in a telehealth environment that is so dependent on verbal communication, is especially important. In order to explain what is happening to a clinician, however, a patient must possess a degree of “health literacy,” defined by the Health Resources & Services Administration (HRSA) as “the degree to which a person has the capacity to process and understand basic health information needed to make appropriate health decisions.”¹⁸³

Unfortunately, health literacy levels in this country are historically low, with one U.S. Department of Education report finding that only 12% of consumers have proficient health literacy skills.¹⁸⁴ In a virtual environment that relies more on verbal communication between patient and provider than in-person appointments traditionally would, this lack of basic health literacy is potentially a significant barrier to telehealth success. The problem is even more acute for Medicare and underserved populations, with HRSA reporting that older adults, minority populations, those with low socioeconomic status, and medically underserved people have higher levels of low health literacy.¹⁸⁵ People with disabilities, despite their greater need for health communication, can also struggle to overcome health literacy challenges.¹⁸⁶

Respite Program Coordinator Joan Marshall, with Senior Resources Area Agency on Aging in Connecticut, has seen this firsthand with some of the populations her AAA serves: “They don’t have the vocabulary necessary to describe what’s going on with them. And particularly for the people with dementia, the virtual visits are really tricky. Some people can grasp it. Some people cannot.”

DISPARITIES WATCH

Limited English Proficiency. Language barriers pose a significant challenge for people with limited English proficiency to accessing telehealth. A study focusing on California found that patients with limited English proficiency had half the odds of using telehealth services compared with those who

were English-proficient.¹⁸⁷

Even when those with limited English proficiency are able to access telehealth, the systems are generally not designed to support them. Curry Senior Center in San Francisco serves a population that speaks a wide variety of languages:

“Even if they are able to get online, most of the systems that support telehealth, such as hospital portals and video visits, are hard to access for people who speak other languages. Clients find it difficult to interpret their test results because it’s all written in English. They can only depend on the graphic (recommended range) to understand whether they are in the “green/healthy” range.”

– Terrie Li, Health Educator, Curry Senior Center, San Francisco

Angela Di Martino, Wellness Program Manager at the Curry Senior Center, noted there are systemic issues with telehealth services that pose challenges, such as accessing MyChart, which allows patients to access their health records, test results, medication refills, and telehealth visits.¹⁸⁸ “It’s really only in English for them. Our health educators did a lot of work helping them set it up for themselves, but ultimately the material on the screen is all in English, so if they don’t read English, they are kind of out of luck.” Currently, MyChart is available in English and Spanish.

HIPAA Compliant, but Privacy Tradeoffs. Telehealth language barriers often lead to another unanticipated consequence – compromising privacy. While a telehealth system may be HIPAA compliant, accessing that system potentially leads to the private health information of non-English proficient individuals being exposed. Nana Tutberidze-Stamos, a health educator who works with non-English-speaking clients at the Curry Senior Center, commented that “clients who do not speak English ask their caretakers, social workers, or even neighbors who speak their language to help them create an account and read their lab tests or write to their providers, thus revealing their private health information.” While the nuances of HIPAA considerations are not explored in this report, the Center believes these and other privacy protections are critically important.

Even when trying to balance keeping one’s privacy with getting the third party help needed to access MyChart, sometimes losing privacy was unexpected. Nana Tutberidze-Stamos explains that “after clicking the last step in the account creation, it takes them straight to all their diagnoses over the years. If they have someone helping them, this private health information is exposed and neither the patient, nor the helper, are aware of this or prepared to see it. It truly exposes what the patient probably doesn’t want anyone else to know about.”

Adding to the English language barriers is the fact that MyChart did not appear to be intuitive to use. Angela Di Martino explained that “MyChart did not make it easy to teach this topic. What I ended up doing is, I logged in as me and was like, ‘Alright you guys, you are all going to see my high blood pressure, my weight. I don’t care. We created a YouTube lesson. We had to make do or figure out ways around that.’”

Once able to figure out how to navigate MyChart, the Curry Senior Center clients were able to enjoy the benefits of the service, “One of the greatest opportunities for those who learned MyChart navigation,” Nana Tutberidze-Stamos recounts, “was the ease with which they could reschedule their appointments and improve communication with their doctors – no longer waiting on the call line or for their next appointment to ask urgent questions or express their concerns,” adding, “the opportunity to view lab tests online was a great benefit.”

DETAILED POLICY RECOMMENDATIONS FOR PEOPLE / PEOPLEWARE

- **Expand training options.** Training should include targeted education focused on teaching beneficiaries on how to use their equipment to access telehealth services and health portals. Recurring training should be provided as needed for individuals who might not intuitively remember how to access telehealth services, and as technology gets updated and evolves. San Francisco Department of Disability and Aging Services' Program Manager Paulo Salta explains, "I can't stress the training pillar [enough], especially with the vulnerable populations in older adults." Adding, "Tech changes every time, so training needs to be provided every time."
 - **Provide funding for individuals who can serve as direct intermediaries between Medicare beneficiaries and their providers / clinicians.** One route to achieve this would be to provide additional funding to Area Agencies on Aging (AAAs) throughout the country for this position.
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CONCLUSION

In June 2021, 15 months after CMS implemented telehealth waivers and flexibilities in response to the COVID-19 public health emergency, Health and Human Services Secretary Xavier Becerra spoke to the *Washington Post* about the importance of telehealth moving forward:

“We are not going to do things that increase disparities. We’re going to do everything we can to include everyone. It should make no difference what zip code you live in, in America. You should have access to whatever technologies we as a government through our taxpayer dollars make available, and so that is why we want to make sure we do this the right way and there’s accountability on both ends of the system.”¹⁸⁹

Becerra’s pledge to prevent an increase in disparities for Medicare beneficiaries is a tall, but achievable, order. The populations Medicare serves include those who are most vulnerable to the impacts of these disparities, coupled with those most in need for these vital telehealth services. The COVID-19 pandemic has only heightened our awareness of this deadly combination, with people 65 and over and people of color suffering the largest rates of COVID-19 related deaths.¹⁹⁰

While the nation navigates a protracted recovery from the pandemic, we also find ourselves at a telehealth crossroads. We face a decision: whether to keep, reduce, or select from the coronavirus waivers and flexibilities that CMS enacted during the crisis. Decisions must be made about whether to codify those determinations as policy, regulations, or legislation. These decisions partly rely on our willingness to invest in the nation’s infrastructure and people, as well as our capacity for innovation.¹⁹¹ It will also require a coordinated effort between federal and state governments.

“Technology is so much of the ballgame these days,” Secretary Becerra mused in the *Washington Post* discussion. “Without technology, you’re a lot slower. You’re not as nimble. But we have to make sure we use the technology the right way as well. We can’t leave people behind simply because they can’t afford the technology or the technology hasn’t reached where they live. We want to make sure that everyone benefits.”¹⁹²

Listening to voices from the field, as the Center for Medicare Advocacy has done in developing this Report, the need for, and promise of, telehealth services is clear – as are the obstacles that so many beneficiaries and caregivers face. But innovation is not the sole purview of those behind the technologies upon which we’ve come to rely. As a nation, we have been pushed to adapt to a rapidly changing health care landscape, a disruption that has raised countless questions, with many revolving around one fundamental resolve ... *What will it take to harness the potential of technology to bring better, more accessible care to all Americans?* Countless individuals have applied tremendous dedication and creativity to answer this all-important question. It is the aim of this Report to build on the progress they have made so that the lessons learned through the pandemic help create a future where better health, quality care, and equity are realized.

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