



Published: May 31, 2022

Citation Charles M. Lepkowsky, 2022. Telehealth Policy and Access to Care, Medical Research Archives, [online] 10(5).

<https://doi.org/10.18103/mra.v10i5.2844>

Copyright: © 2022 European Society of Medicine. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

DOI

<https://doi.org/10.18103/mra.v10i5.2844>

ISSN: 2375-1924

RESEARCH ARTICLE

Telehealth Policy and Access to Care

Charles M. Lepkowsky¹

¹ Phd

* clepkowsky@gmail.com

ABSTRACT

The COVID-19 pandemic has highlighted limitations in access to healthcare. During the current public health emergency (PHE), Medicare, private insurers and state licensing boards have made policy changes liberalizing reimbursement for telehealth. Historically, Medicare and large private insurers (in the US) have presumed information technology (IT) fluency by patient populations. However, data demonstrate that there are numerous populations who demonstrate very limited utilization of IT for accessing healthcare, including older adults. These data demonstrate the importance of assessing IT utilization to make healthcare accessible to individual patients, and to better understand patterns of IT utilization among groups with historically low IT utilization. Under pressure from medical and consumer groups, Medicare and private insurers allowed reimbursement for telephone-only virtual visits during the PHE, but indicate that termination of the PHE will be coupled with termination of more liberal telehealth policies. In addition, Medicare and private insurers continue to seek loopholes allowing exclusion of various types of telehealth, which will make telehealth (and healthcare) inaccessible to the most vulnerable populations, including older adults. Recommendations are made for assessment of IT utilization as part of routine patient intake assessment, in order to make healthcare accessible, improve communication between patients and healthcare providers, and to improve treatment outcomes. Recommendations are also made for permanent telehealth policy changes that will make healthcare more accessible to at-risk populations.

Keywords: COVID-19; pandemic; telehealth; Medicare; policy.

Telehealth Policy and Access to Care

The COVID-19 pandemic has produced widespread symptoms of acute and chronic stress, dramatically increasing the worldwide demand for mental health care. [1-6] As efforts to contain contagion led to closure of outpatient facilities, non-emergent in-person care became less available. Telehealth (the use of videoconferencing and/or audio-only telephonic communication for remote access to healthcare) rapidly evolved from a rarely utilized modality to a primary treatment modality, with data quickly emerging demonstrating its efficacy, how it dramatically increases access to care, and notably, how it contains costs in healthcare systems. [7-16]

The pandemic also crystallized limitations in access to healthcare, including poor access for people with disabilities, mobility issues, limited geographic access to health care (e.g., those living in rural areas), and most of all, those with limited fluency with information technology (IT). [13,14, 16-18] As a consequence of the pandemic, the United States government declared a public health emergency (PHE), providing a context in which medical and consumer advocacy groups effectively exerted pressure on Medicare, private insurers and state licensing boards to make policy changes liberalizing reimbursement for telehealth services, including videoconferencing and audio-only telephone contact. [19-26] In a concession allowing reimbursement for virtual healthcare, the Center for Medicare and Medicaid Services (CMS) published policy stating that during the public health emergency it would not enforce some of the existing limitations on telehealth reimbursement, including requirements that the patient was located at an approved rural facility. [20] The temporary PHE changes in CMS policy dramatically increased healthcare access for Medicare subscribers proficient in the use of IT. However, the initial policy changes did not include telephonic (audio-only) telehealth for virtual care. [26] This remarkable exclusion bears exploration.

Over the past three decades, Medicare and private insurers have increasingly presumed information technology (IT) fluency by patient populations, and increasingly have defaulted to the use of IT for communication with patients. [27-35] In the absence of any data indicating that the populations they serve have fluency with information technology (IT), hospitals, regional health centers, university

teaching hospitals, and local medical clinics have followed suit. [36-44] However, the data indicate wide disparities in IT utilization between groups based on variables including developmental disability, socio-economic status (SES), education, ethnicity and age. [45-57] Because there are documented disparities in IT utilization between groups, the default use of websites and other IT for universal communication with patients from all groups might create a barrier to care for some patient populations. [26, 46, 48-52, 55, 57-62]

Among the variables correlated with disparities in IT utilization, age is universal. [26, 50-52, 57] The US government estimates that by calendar year 2060, the number of American adults over the age of 65 will more than double from 46.5 million today to over 98 million (nearly 25% of the population). [63,64] Compared to younger age cohorts, people over the age of 65 utilize health care at significantly higher rates: 136% for Emergency Department admissions, 263% for inpatient discharges, and 241% for outpatient office visits. [65,66] For people aged 65 years and older, healthcare spending per capita is three times higher than that for working-age adults, and five times higher than for children. [67]

Over the last three decades, internet and IT utilization have increased among members of all age groups. What has not changed is the disparity between IT utilization by older adults compared to younger age cohorts. Access to in-home high-speed internet for older adults lags at least 20% behind that of younger age cohorts. [45, 55,56] This disparity is summarized in Table 1.

Table 1: Access to Home High Speed Internet by Age [45]

Age in Years	Access to home high speed internet
18-34	79.2%
35-44	83.2%
45-64	79.1%
65 and older	59.2%

Perhaps more importantly, among older adults representing the population of Medicare

subscribers, IT fluency is surprisingly low. Data indicate that among Medicare subscribers, only 7% of people over the age of 70, and only 2% of people over the age of 80 use the internet to

communicate with health care providers. The low rates of IT utilization correlated with increasing age are illustrated in Table 2.

Table 2: Percentage of IT Utilization to Access Healthcare by Age [57]

Age Cohort	Age under 29	Age 30 to 39	Age 40 to 49	Age 50 to 59	Age 60 to 69	Age 70 to 79	Age over 80
% IT Utilization	95	98	95	68	40	7	2

The age-related decline in IT utilization for accessing healthcare is even more dramatic when viewed in graphic form, with age cohorts

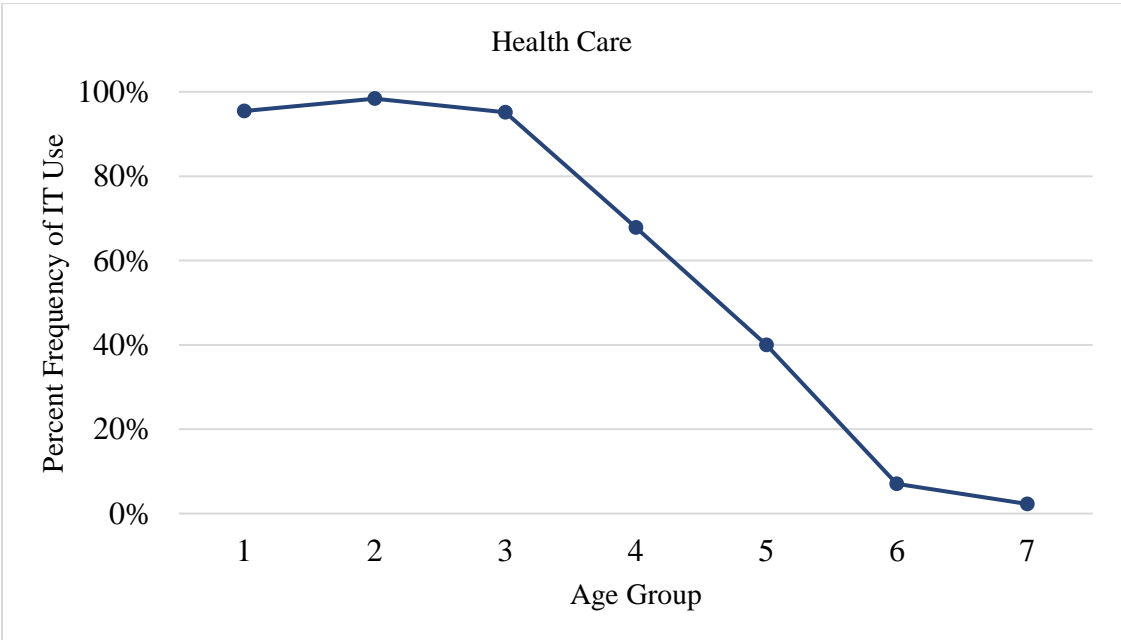
representing the X-axis. Age cohorts separated into groups are illustrated in Table 3.

Table 3: Age Cohorts Separated into Groups [57]

Group	Age in years
1	18 to 29
2	30 to 39
3	40 to 49
4	50 to 59
5	60 to 69
6	70 to 79
7	80 or older

Declining IT utilization for accessing healthcare associated with increasing age is illustrated in Figure 1.

Figure 1: Percentage Frequency of IT Use for Accessing Healthcare by Age Group [57]



Viewed from another perspective, the data indicate that 93% of adults over the age of 70 and 98% of adults over the age of 80 do not use the internet or IT to communicate with healthcare providers. Functionally these data mean that for remote or virtual healthcare, the average Medicare subscriber over the age of 70 (95.5% of that age cohort) relies entirely on telephonic (audio-only) virtual contact with health care providers. [57] Although the Center for Medicare Advocacy monitors potential access to care issues including economic disparity, IT fluency has not been addressed. [57] Telehealth options for low IT users continue to be limited to telephonic (audio-only) contact, which has been singled out for special scrutiny by Medicare and private insurers. [26]

Early during calendar year 2020 in an advocacy effort to make reimbursement available for telephonic (audio-only) telehealth care, consumer advocacy groups, the American Medical Association (AMA) and the American Psychological Association (APA) made repeated written appeals to CMS and the U.S. Congress. CMS responded on April 30, 2020, allowing reimbursement during the PHE for telephonic (audio-only) telehealth care for patients using Current Procedural Terminology (CPT) codes including those for routine psychotherapy. [68] This important change in Medicare policy makes health care temporarily accessible to 95.5% of Medicare subscribers over the age of 70. However, the change is only temporary and will expire when the COVID-19 public health emergency (PHE) has been allowed to expire. [26]

Better health outcomes and increased ratings of satisfaction by patients and providers of care have long been associated with improved communication with patients. [69,70] Despite the remarkable adoption of telehealth technology during the pandemic, routine assessment of patient IT fluency, specifically, the use of IT for communication with healthcare providers, remains a blind spot in healthcare. [57] Health care protocols for working with older adults have not included IT fluency or frequency of utilization routine as a specific area of assessment or treatment. [57,71] To date, the American Psychological Association's Guidelines for Psychologists Working with Older Adults do not include familiarity with the assessment and treatment of technology challenges or barriers for older adults as a guideline. [72]

However, there are valid and reliable instruments that can be used to assess the frequency with which an individual uses specific kinds of IT to access healthcare. [50, 52, 57, 73] Using such instruments provides detailed information to healthcare providers and agencies about which communication media a specific patient utilizes, which can improve communications between patient and healthcare providers, increasing the likelihood of better healthcare outcomes and higher satisfaction ratings by patients and healthcare provider. [58,69,70] The use of such instruments can also provide information about demographic trends in IT utilization associated with numerous variables including age, as illustrated by the data presented in Table 2 (above). [57]

Within the context of COVID-19 and the current PHE, older adults are among those most at risk for serious illness or fatal reactions to COVID-19, and those for whom shelter in place is most strongly recommended. [23] In a broader context, the healthcare needs of older adults significantly exceed those of younger age cohorts. [65,66] Not only is the cost of healthcare for older adults three times that for working-age adults and five times that for children, but the number of older adults is growing more quickly than the rest of the population. [63,64,67] When the public health emergency expires, termination of liberalized reimbursement policies for telehealth, specifically telephonic (audio-only) virtual healthcare, means that the patient populations (including older adults) most at risk with the greatest needs for health care might find it most difficult to access. [57]

Telehealth has a solid track record of reducing costs to the healthcare system. [15-17] As the percentage of older adults in the population increases, and with it, the burden of expense to the healthcare system, the reinstatement of limitations in access to healthcare (including disallowing reimbursement for telehealth using only the telephone) are most likely to lead to worse health outcomes and greater costs to the healthcare system. It might thus be argued that termination of liberalized telehealth policies is a penny-wise, pound-foolish strategy whose most likely outcome is not only poorer health, but also increased costs to the healthcare system. [26]

Discussion and Recommendations

The decision by the Center for Medicare and Medicaid Services (CMS) to allow reimbursement

for telephonic (audio-only) telehealth during the public health emergency (PHE) was a significant acknowledgement of the barriers to healthcare posed by the use of the internet and related IT for communication between patients and healthcare providers. [26] That decision also induced private insurers to allow reimbursement for telephonic (audio-only) telehealth during the PHE, making healthcare more accessible to other populations with limited access to or fluency with IT. [46-62,65] At the very least, allowing reimbursement for telephonic (audio-only) telehealth makes healthcare accessible to an average of 95.5% of Medicare subscribers over the age of 70 [57]. Research data demonstrate age-related disparities in IT utilization for accessing healthcare. Although the use of IT declines overall with increasing age, the specific use of IT for accessing healthcare declines most rapidly with advancing age. [46, 57] When compared with younger age groups up to the age of 40, the frequency of internet use specifically for communicating with insurers and health care providers declined 28% by age 50, 58% by age 60, 93% by age 70, and 98% by age 80. The data indicate that although adults aged 50-59 believe that are capable of using the internet to communicate with insurers or doctors, they prefer not to do so. 95.5% of Medicare subscribers over the age of 70 rely entirely on telephonic (audio-only) virtual contact with health care providers. [57]

Pertinent to future Medicare telehealth policy, research data also indicate that the highest internet users in the 1985 U.S. Census Bureau findings (age 30-35) were in the low internet user category in the U.S. Census Bureau 2016 findings (aged 62-67). This finding is not because people stop using the internet as they get older, but rather, because as people age, their adoption of new IT including the internet declines. [58] The decline in adoption of new IT with advancing age might be attributed to reduced neuroplasticity, loss of contact with novel technologies following retirement, and/or lack of access to and/or training in the use of new kinds of IT. [74-76] This finding demonstrates that high IT use is not a trait of the individual which remains consistent over time, but rather, is a characteristic associated with the age at which new IT is introduced: younger people adopt new IT & use it more frequently than older people, even if those older people were high IT users when they were young. If Medicare, other insurers, and health care providers continue to default to the use of evolving novel technologies, data suggest that young people

who are current early adopters of novel IT will in the future as older adults continue to rely on older IT with which they are familiar. The novel IT introduced to them as older adults will effectively create a barrier to access to care, just as it does today.[57]

These data demonstrate the importance of routine intake assessment of patient IT utilization, to help healthcare providers determine the most effective means of communication with each patient. [57] Medicare, Medicaid, private insurers, government-funded healthcare agencies, community clinics, hospitals and private healthcare practices might make use of routine intake assessment of patient IT utilization, not only to determine the most effective media for communicating with an individual patient, but also, to build a more robust data bank that accurately tracks patterns of IT utilization by various patient populations, with the goals of improving communication between patients and healthcare providers in order to achieve better healthcare outcomes and higher ratings of satisfaction by patients and healthcare providers. [26,57,70,71]

Although Medicare and private insurers have allowed reimbursement for telephonic (audio-only) telehealth during the PHE, they indicate that termination of the PHE will be coupled with termination of more liberal telehealth policies. [77] In addition, Medicare and private insurers continue to seek loopholes allowing exclusion of various types of telehealth, including a requirement for at least one in-person visit within each 12-month period, which will make telehealth (and healthcare) inaccessible to the most vulnerable populations, including older adults. [78,79] The basis for restrictions on reimbursement for more liberal telehealth options by Medicare and private insurers bears exploration. Why limit access to care?

The reasons vary between Medicare and private insurers. Medicare is unique, as the only nationalized health insurance provider in the US (Medicaid is administered through each state, and hence inconsistent). [80,81] The Medicare's Physician Fee Schedule is published annually by the Center for Medicare and Medicaid Services (CMS), which is a branch of the U.S. Department of Health and Human Services (DHHS). [82] Medicare is funded through a 2.9% payroll tax, half of which is paid by the employee and half by the employer, unless one is self-employed, in which case the self-employed person pays the entire 2.9%. [83]

Budgetary decisions for CMS are made by the Congressional Budget Office, which makes projections about annual costs with input from the Medicare Payment Advisory Commission (or MedPac). [84,85] The board of trustees for Medicare and Medicaid services publishes an annual report, which also projects anticipated revenues and costs for the Medicare program. [86] Beginning in the 1990's, the board of trustees for Medicare and Medicaid services annual reports have projected a growing population of Medicare subscribers and a shrinking influx of payroll tax dollars to subsidize the program. [87-89] Their concerns are based on the following:

1) In 1965 when Medicare became law, the average American (genders combined) lived to age 68. Currently, the average American (genders combined) lives to be 78.79 years, an increase of 11 years. On the average, instead of providing coverage for 3 years, Medicare has to provide coverage for 14 years, 4.67 times as long -- which translates into 4.67 times the cost. [87,90-92]

2) That cost is compounded, because for every year after age 65, the annual cost of a person's health care increases. The annual cost of healthcare for a person over the age of 65 is five times that of a child and three times that of a working-aged adult, and increases proportionately with each year after age 65, so the actual increase in cost to Medicare is more than 4.67 times what it was in 1965. [93,94] In 2018, Medicare benefit payments totaled \$731 billion, a dramatic increase from a total of \$462 billion in 2008. [95]

3) The ratio of taxpayers to Medicare subscribers in 1970 was 5.5 to 1. It is currently 3 to 1, and as more Baby Boomers (people born between 1946 and 1964) leave the workforce and become Medicare subscribers, that ratio continues to drop. There are 79 million Baby Boomers. Over half are already Medicare subscribers. In 2029, the last Boomer will become a Medicare subscriber. There are not enough replacement taxpayers to replace the payroll tax dollars that will disappear as Baby Boomers retire, a statistic compounded by suppressed earnings for younger Americans. [95,96]

The hard fact is that there is not enough payroll tax revenue coming in to support the current cost of Medicare, and that situation is going to get worse over the next decade. The most straightforward

solution would be to increase the payroll tax. A 2.9% tax for health insurance from age 65 on is incredibly inexpensive. However, no member of Congress wants to be the one who suggests an increase in the Medicare payroll tax. [97]

Instead, Congress has made aggressive efforts to contain the cost of Medicare since the 1990's. The Sustainable Growth Rate (SGR) act of 1997 would have cut reimbursement to Medicare providers 21.2%. [98] The law's implementation was stalled 17 times due to lobbying efforts by the American Medical Association (AMA). In place of the SGR 21.2% reimbursement cut, a series of smaller pay cuts were enacted, to say nothing of the absence of any kind of cost-of-living allowance (COLA). [99] For example, adjusted for inflation, the 2022 Medicare reimbursement for the most frequently billed outpatient mental health service is 41% what it was in 1985. [82, 100] The series of Medicare pay cuts and suppression of reimbursement over time has led to an increasing number of Medicare providers opting out of the system, contributing to what is now being called a critical shortage of healthcare providers in the United States. [101]

The final compromise was The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), a bipartisan legislation signed into law April 16, 2015. [102] MACRA came loaded with vast documentation requirements including electronic health records (EHRs), which must be entered during the patient visit by the health care provider (no delegation is allowed), as well as a volume of paperwork research estimates at an average of 400-800 hours per calendar year for a family practice physician (time which is not reimbursed). MACRA also includes a scoring system for adequacy of documentation called the Merit-based Incentivized Payment System (MIPS) that determines reimbursement withholding or 'bonuses' for physicians, wherein 50% of physicians will receive a bonus and 50% will have reimbursement decreased by as much as 9%. [102-104] The notion of 'bonuses' is a sham, in the context of overall Medicare reimbursement reductions due to inflation over the last four decades, so the reality is that in the MIPS model, no one 'wins.' [100]

As a consequence of reimbursement reductions, MACRA's ballooning documentation requirements, the MIPS reimbursement lottery model and other factors including older physicians retiring the growing number of older adults, and the COVID-19

pandemic, there is currently a U.S. shortage of about 20,000 physicians. That number is expected to grow to somewhere between 38,000 and 125,000 by 2034, depending on demographic shifts, economic uncertainties, and changes in health care use. [105,106] In the realm of mental health care, psychiatrists have the highest Medicare opt-out rate of any medical specialty. [107,108] A survey of membership by the American Psychological Association revealed that 26% of Medicare participating provider psychologists had opted out as Medicare providers, citing decreased reimbursement and burgeoning documentation requirements. [109] Although the American physician shortage began long before COVID-19, it impeded the American response to the pandemic and grew more rapidly than experts predicted, for reasons including pandemic-related burnout and accelerated retirement. [106] The American physician shortage is unevenly distributed throughout the 50 states, with the most severe shortages of primary care and mental health services in Arizona. [110]

Unlike Medicare, private health insurance companies are corporations traded on the stock market and accountable to their shareholders, creating a strong incentive to produce increasing profits over time. [111] Private health insurance companies are funded through health insurance premiums payments from subscribers and/or their employers. [112] Private health insurers use Medicare as the standard for determining reimbursement to providers (they use multipliers of the Medicare rate) and documentation requirements (which discourage health care provider participation), both of which provide cost containment for Medicare and higher profits for private insurers. [113] Although the need to generate profit by containing costs and increasing premiums is inconsistent with the need of the public for affordable healthcare, private health insurance companies provide a wide range of coverages and reimburse health care providers an average of 143% the amount they receive from Medicare, both of which increase access to care. [114]

One of the historical threats to the financial viability of private health insurance companies is potential liability for extracontractual damages for 'bad faith' in first party claims. [115] Excessive cash awards to plaintiffs in 'bad faith' lawsuits have cost insurers, and ultimately the insurance-purchasing public hundreds of millions of dollars each year.

[116] Over time, the courts have become more sensitive to misuse of the system by claimants and overly aggressive plaintiffs' attorneys, recognizing that huge settlements ultimately increase costs to the public. [115]

In order to remain profitable, private health insurance companies have increased premiums from subscribers and/or their employers an average 47% over the last decade, outpacing both wage growth (31%) and inflation (23%) over the same time period, and the cost of premiums is expected to jump an additional 5% this year. [112,117] In combination with annual deductibles and coverage limitations, health insurance premiums have made health insurance a multitrillion dollar a year industry. The U.S. health insurance industry experienced a significant increase in net earnings to \$31 billion and an increase in the profit margin to 3.8% in 2020 compared to net earnings of \$22 billion and a profit margin of 3% in 2019. [118] While increasing premiums increase the cost of health insurance for the public, private health insurers' reimbursement to health care providers (which exceeds Medicare's by an average 43%) combined with court containment of settlement awards in suits against health insurers serve to increase the public's access to care and contain the public's cost for health care. [114,115]

Conversely, Medicare's funding limitations and complex governmental policy-making structure have led to dramatic reductions in health care provider reimbursement and increases in documentation requirements, driving health care providers out of the Medicare provide panel and consequently limiting the public's access to health care. [82,101] These inconsistencies highlight the challenges of providing access to care while containing costs in order to keep the health care system viable, especially for a system with fixed funding like Medicare.

In the context of balancing access to care with cost containment necessary for the viability of the health insurance organization, the pertinent question regarding telehealth is whether the costs of liberalized telehealth policies (including reimbursement for telephonic, audio-only telehealth) outweigh the benefits. The RAND Corporation has published data indicating that telehealth not only increased access to care dramatically during the COVID-19 pandemic, but also that telephonic (audio-only) telehealth plays a

unique role in bridging the digital gap for populations for whom videoconferencing web-based platforms are inaccessible or too difficult. [119] Telephonic (audio-only) telehealth has also been identified as a treatment modality with potential for addressing long-standing health inequities among historically marginalized and minoritized communities that have been impacted disproportionately by the COVID-19 pandemic. [120]

Looking beyond the pandemic, CMS has proposed the expansion of Medicare coverage to audio-only communication technology for telehealth services to diagnose, evaluate, or treat established patients with mental health and substance abuse disorders. This proposal also includes Medicare coverage for telephonic mental health services to beneficiaries who are unable to leave their homes for appointments. The CMS proposal is garnering support in the U.S. Congress from U.S. senators who have described telephonic telehealth as a “lifeline” for nurses. Ensuring the availability of audio-only telehealth service is considered necessary by many parties for the following reasons: 1) A high-speed internet connection and broadband services are necessary for videoconferencing telehealth. About a third of Native Americans in the United States live on tribal lands, where suicide and incest are more common, and treatment for substance abuse disorders is difficult to find. 2) Telephonic (audio-only) telehealth access is cost-effective and assures the availability of healthcare even without high-speed connectivity. 3) Digital literacy is required to use videoconferencing telehealth services. Consistent with research described previously, the Bipartisan Policy Center in collaboration with Social Sciences Research Solutions found that older Americans used telephonic (audio-only) telehealth significantly more than videoconferencing telehealth visits in the previous year. Their data indicate that 42% of older adults reported some kind of technology or access barrier when participating in telehealth videoconferencing, with higher frequency of difficulties with advanced aged and for people in rural areas. Videoconferencing is also significantly more difficult to coordinate for caregivers of family members. [121]

The American Medical Association recently published survey results consistent with the RAND

Corporation’s findings. The AMA report addressed the relative utility, accessibility and quality of various telehealth modalities. Findings indicated that telehealth reimbursement and services now encompass all primary forms of healthcare, with high satisfaction ratings from both patients and healthcare providers. The report states that telephonic (audio-only) telehealth will remain an essential component of access to care, especially for patients with limited IT fluency. The authors suggest that policymakers support audio-only telehealth policies to reduce digital inequities as efforts are made to reduce the digital divide. [122]

In conclusion, based on the data demonstrating the significant increase in access to care provided by telephonic (audio-only) telehealth, especially among populations with limited access to or fluency with IT, it is recommended that the liberalization of telehealth policies during the PHE is made permanent, including patient access to telehealth from home, parity of reimbursement for telehealth with equivalent in-person healthcare services, and reimbursement for telephonic (audio-only) healthcare visits. [13,15,16,119-122] Establishing these changes as permanent policy will make healthcare more accessible to the populations most at risk, with consequent improvements in healthcare outcomes and cost savings for healthcare systems. [26]

**Declarations:
Funding, Competing Interests, Consents,
Contributorship, and Acknowledgements**

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. The author has no conflicts of interest to declare. There are no competing interests involved in the research reported or the writing of this paper. This paper was written according to the Ethical Principles of the American Psychological Association. The author is the sole author of this work, including its conception and design; the acquisition, analysis, and interpretation of data; drafting, writing, and editing; final approval of the version published; and accepts accountability for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

References

1. Wesemann U, Hadjamu N, Willmund G, Dolff S, Vonderlin N, Wakili R, Vogel J, Rassaf T, Siebermair J. Influence of COVID-19 on general stress and posttraumatic stress symptoms among hospitalized high-risk patients. *Psychol Med*. 2020 Aug;14:1-2. doi:10.1017/S0033291720003165
2. Jakovljevic M, Bjedov S, Jaksic N, Jakovljevic I. COVID-19 Pandemia and public and global mental health from the perspective of global health security. *Psychiatr Danub*. 2020 Spring;32(1):6-14. doi:10.24869/psyd.2020.6
3. McGonagle KA, Kessler RC. Chronic stress, acute stress, and depressive symptoms. *Am J CommunPsychol*. 2020;18:681–706. <https://doi.org/10.1007/BF00931237>
4. Mariotti A. The effects of chronic stress on health: new insights into the molecular mechanisms of brain-body communication. *Future Sci OA*. 2015;1(3):FSO23. doi:10.4155/fso.15.21
5. McEwen BS. Neurobiological and Systemic Effects of Chronic Stress. *Chronic Stress (Thousand Oaks)*. 2017 Jan-Dec;1:2470547017692328. doi:10.1177/2470547017692328
6. Vyas A, Mitra R, Shankaranarayana Rao BS, Chattarji S. Chronic stress induces contrasting patterns of dendritic remodeling in hippocampal and amygdaloid neurons. *J Neurosci*. 2002 Aug 1;22(15):6810-8. doi:10.1523/JNEUROSCI.22-15-06810.2002
7. Peden CJ, Mohan S, Pagán V. Telemedicine and COVID-19: an observational study of rapid scale up in a US academic medical system. *J Gen Intern Med*. 2020 Sep;35(9):2823-2825. doi:10.1007/s11606-020-05917-9
8. Mann DM, Chen J, Chunara R, Testa PA, Nov O. COVID-19 transforms health care through telemedicine: Evidence from the field. *J Am Med Inform Assoc*. 2020 Jul 1;27(7):1132-1135. doi:10.1093/jamia/ocaa072
9. Wosik J, Fudim M, Cameron B, Gellad ZF, Cho A, Phinney D, Curtis S, Roman M, Poon EG, Ferranti J, Katz JN, Tchong J. Telehealth transformation: COVID-19 and the rise of virtual care. *J Am Med Inform Assoc*. 2020 Jun 1;27(6):957-962. doi:10.1093/jamia/ocaa067
10. Ramaswamy A, Yu M, Drangsholt S, Ng E, Culligan PJ, Schlegel PN, Hu JC. Patient satisfaction with telemedicine during the COVID-19 Pandemic: Retrospective cohort study. *J Med Internet Res*. 2020 Sep 9;22(9):e20786. doi:10.2196/20786
11. Bokolo Anthony Jnr. Use of telemedicine and virtual care for remote treatment in response to COVID-19 pandemic. *J Med Syst*. 2020 Jun 15;44(7):132. doi:10.1007/s10916-020-01596-5
12. Farrugia G, Plutowski RW. Innovation lessons from the COVID-19 pandemic. *Mayo Clin Proc*. 2020 Aug;95(8):1574-1577. doi:10.1016/j.mayocp.2020.05.024
13. Julien HM, Eberly LA, Adusumalli S. Telemedicine and the forgotten America. *Circulation*. 2020 Jul 28;142(4):312-314. doi:10.1161/CIRCULATIONAHA.120.048535
14. Smith AC, Thomas E, Snoswell CL, Haydon H, Mehrotra A, Clemensen J, Caffery LJ. Telehealth for global emergencies: Implications for coronavirus disease 2019 (COVID-19). *J Telemed Telecare*. 2020 Jun;26(5):309-313. doi:10.1177/1357633X20916567
15. Shah ED, Amann ST, Karlitz JJ. The Time Is Now: A guide to sustainable telemedicine during COVID-19 and beyond. *Am J Gastroenterol*. 2020 Sep;115(9):1371-1375. doi:10.14309/ajg.0000000000000767
16. Cubo E, Hassan A, Bloem BR, Mari Z; MDS-telemedicine study group. implementation of telemedicine for urgent and ongoing healthcare for patients with Parkinson's Disease during the COVID-19 pandemic: New Expectations for the Future. *J Parkinsons Dis*. 2020;10(3):911-913. doi:10.3233/JPD-202108
17. Keesara S, Jonas A, Schulman K. Covid-19 and health care's digital revolution. *NEJM*. 2020;382(23):e82. doi:10.1056/NEJMp2005835
18. Chang JE, Lai AY, Gupta A, Nguyen AM, Berry CA, Shelley DR. Rapid transition to telehealth and the digital divide: Implications for primary care access and equity in a post-COVID era. *The Milbank Quarterly*. 2021;99(2):340-368, doi:10.1111/1468-0009.12509

19. Centers for Medicare and Medicaid Services. Additional background: Sweeping regulatory changes to help U.S. healthcare system address COVID-19 patient surge. 2020. <https://www.cms.gov/newsroom/factsheets/additional-backgroundsweeping-regulatory-changes-help-us-healthcare-system-address-covid-19-patient>. Accessed April 30, 2022.
20. Centers for Medicare and Medicaid Services. Billing for professional telehealth distant site services during the public health emergency — Revised. 2020. https://www.cms.gov/outreach-and-education/outreachffsprovpartprogprovider-partnership-email-archive/2020-04-03-mlnc-se#_Toc36815181. Accessed April 30, 2022.
21. Centers for Medicare & Medicaid Services. CMS-1744-IFC: Medicare and Medicaid programs; policy and regulatory revisions in response to the COVID-19 public health emergency. 2020. <https://www.govinfo.gov/content/pkg/FR-2020-04-06/pdf/2020-06990.pdf>. Accessed April 30, 2022.
22. Payán DD, Frehn JL, Garcia L, Tierney AA, Rodriguez HP. Telemedicine implementation and use in community health centers during COVID-19: Clinic personnel and patient perspectives. *SSM - Qualitative Research in Health*. 2022; 2:100054. ISSN 2667-3215. <https://doi.org/10.1016/j.ssmqr.2022.100054>.
23. Center for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19): People who are at higher risk for severe illness. 2020. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>. Accessed April 30, 2022.
24. Skillings J. Billing Update: New phone-only billing codes. 2020. Retrieved from: <https://www.apaservices.org/practice/clinic/covid-19-audio-only-phone-service-codes>
25. U.S. Department of Health and Human Services. Telehealth was critical for providing services to Medicare beneficiaries during the first year of the COVID-19 pandemic. 2022. <https://oig.hhs.gov/oei/reports/OEI-02-20-00520.asp>
26. Lepkowsky CM. Telehealth reimbursement allows access to mental health care during COVID-19. *American Journal of Geriatric Psychiatry*. 2020;28(8):898-899. <https://doi.org/10.1016/j.jagp.2020.05.008>
27. Medicare.gov, the official U.S. Government site for Medicare. 2018. <https://www.medicare.gov/>. Accessed 08/15/2018.
28. Centers for Medicare and Medicaid Services. Get started with Medicare. 2018. https://hellomedicare.com/get-started-with-medicare/?CustomFMO1=HM000011&CustomTrack2=8884760875&hellomedicare_launch_aug2018&ppc&google&nonbrand&medicare%20online&gclid=CjwKCAjw2MTbBRASEiwAdYlpsXeJvoRYuJYjaLAKO77rkUy4AxsT4s3tksmE-jXk8mWoC66G_v2_YBoC45QQAvD_BwE&gclsrc=aw.ds. Accessed 08/15/2018.
29. Health Care Partners. Choose the Medicare plan that's right for you. 2018. https://medicarecenterca.com/?utm_source=Google&utm_medium=PPC&utm_campaign=SEP&utm_content=General. Accessed 08/15/2018.
30. United Healthcare Insurance Company. AARP Medicare supplement plans. 2018. https://www.aarpmedicaresupplement.com/medicare-information-guide.html?WT.mc_id=HTD&WT.srch=1&enginetype=GOOGLE&campaign=MedSupp-NA-SEM-GGL-PRO-Brand+UHC-General-Website-Exact&keyword=united+healthcare+online&kwid=p35057545130&mrcid=ppc_ms&utm_medium=cpc&gclid=CjwKCAjw2MTbBRASEiwAdYlpsZs4ExE_o190LdiHwGx3M7CJA1E9v3NqBug1MULfL4QcbxDHd2vJERoC9TwQAvD_BwE&gclsrc=aw.ds. Accessed 08/15/2018.
31. Blue Cross Blue Shield. 2018. Internet. Available from: <https://www.bcbs.com/>. Accessed 08/15/2018.
32. United Healthcare. Welcome to United healthcare online. 2018. <https://www.unitedhealthcareonline.com/b2c/CmaAction.do?viewKey=PreLoginMain&forwardToken=PreLoginMain>. Accessed 08/15/2018.
33. Aetna. You don't join us, we join you. 2018. <https://www.aetna.com/>. Accessed 08/15/2018.
34. Health Net. We are your Health Net. 2018. <https://www.healthnet.com/>. Accessed 08/15/2018.

35. Humana. Changes are coming to Humana.com. 2018. <https://www.humana.com/>. Accessed 08/15/2018.
36. Sansum Clinic. MyChart login page. 2018. <https://mychart.sansumclinic.org/MyChart/>. Accessed on 08/15/2018.
37. Lovelace Health System. MyChart Lovelace. 2018. <https://lovelace.com/mychart-lovelace>. Accessed 08/15/2018.
38. Northwestern Medicine. 2018. <https://ext04.webapps.nm.org/MyChartConverion/>. Accessed 08/15/2018.
39. Washington University Physicians. MyChart BJC health care. 2018. <https://www.bjc.org/mychart>. Accessed 08/15/2018.
40. UTMB Health. MyChart. 2018. <https://mychart.utmb.edu/mychart/>. Accessed 08/15/2018.
41. Duke University. Duke MyChart. 2018. <https://www.dukemychart.org/home/>. Accessed 08/15/2018.
42. Health Partners Park Nicolette. Welcome to MyChart. 2018. <https://www.healthpartners.com/public/epic-integration/login.html>. Accessed 08/15/2018.
43. Cleveland Clinic. MyChart. 2018. <https://my.clevelandclinic.org/online-services/mychart>. Accessed 08/15/2018.
44. Wellstar. MyChart. 2018. <https://mychart.wellstar.org/MyChart/>. Accessed 08/15/2018.
45. U.S. Census Bureau. Measuring America: A digital nation. 2016. https://www.census.gov/content/dam/Census/library/visualizations/2016/comm/digital_nation.pdf. Accessed 06/24/2017.
46. Dobransky K, Hargittai E. The disability divide in internet access and use. *Information, Communication & Society*. 2006;9(3):313-334. doi:10.1080/13691180600751298
47. Tanis ES, Palmer S, Wehmeyer M, Davies DK, Stock SE, Lobb K, Bishop B. Self-report computer-based survey of technology use by people with intellectual and developmental disabilities. *Intellectual and Developmental Disabilities*. 2012;50(1):53-68. doi:10.1352/1934-9556-50.1.53
48. Davies DK, Stock SE, King LR, Brown RB, Wehmeyer ML, Shogren KA. An interface to support independent use of facebook by people with intellectual disability. *Intellectual and Developmental Disabilities*. 2015;53(1):30-41. doi: 10.1352/1934-9556-53.1.30
49. Anthony DL, Campos-Castillo C, Lim CPS. Who isn't using patient portals and why? Evidence and implications from a national sample of US adults. *Health Affairs*. 2018;37(12):1948-1954. doi:10.1377/hlthaff.2018.05117
50. Lepkowsky CM. Functional Assessment of Comfort Employing Technology Scale (FACETS): A brief intake instrument to facilitate treatment planning and communication with patients. 2017; *Psychology Behav Med Open Access J*;1(1):9-13. http://ologyjournals.com/pbmoaj/pbmoaj_0002.pdf
51. Lepkowsky CM. Technological diversity: A cost-saving, person-centered alternative to systemic technocentrism and technological provider bias. 2017; *Psychology Behav Med Open Access J*;1(1):1-7. http://ologyjournals.com/pbmoaj/pbmoaj_00001.pdf
52. Lepkowsky CM. Functional Assessment of Currently Employed Technology Scale (FACETS) 4.0: Update on a brief intake instrument to facilitate treatment planning and communication with patients. 2020; *International Journal of Medical Science and Clinical Invention*;7(5):4802-4809. <https://doi.org/10.18535/ijmsci/v7i05.03>
53. Niehaves B, Plattfaut R. Internet adoption by the elderly: employing IS technology acceptance theories for understanding the age-related digital divide. *European Journal of Information Systems*. 2014;23(6):708-726. <https://www.tandfonline.com/doi/full/10.1057/ejis.2013.19>
54. Vroman KG, Arthanat S, Lysack C. "Who over 65 is online?" Older adults' dispositions toward information communication technology. *Computers in Human Behavior*. 2015;43:156-166. doi:10.1016/j.chb.2014.10.018
55. Anderson M, Perrin A. Tech adoption climbs among older adults. *Pew Research Center: Internet & Technology*. 2017. <http://www.pewinternet.org/2017/05/17/tech-adoption-climbs-among-older-adults/>. Accessed 06/24/2017.

56. U.S. Census Bureau. Computer and internet use in the United States: 2003. 2003. <https://www.census.gov/prod/2005pubs/p23-208.pdf>. Accessed 06/24/2017.
57. Lepkowsky CM, Arndt S. The Internet: Barrier to Health Care for Older Adults? *Practice Innovations*. 2019;4(2):124-132. <https://doi.org/10.1037/pri0000089>
58. Center for Medicare Advocacy. CMS report finds access to care problems for low-income Medicare beneficiaries. 2015. <http://www.medicareadvocacy.org/cms-report-finds-access-to-care-problems-for-low-income-medicare-beneficiaries/>. Accessed 08/15/2018.
59. Hoffman D, Novak T, Schlosser A. The evolution of the digital divide: how gaps in internet access may impact electronic commerce. *Journal of Computer-Mediated Communication*. 2000;5(3):JCMC534, <https://doi.org/10.1111/j.1083-6101.2000.tb00341.x>
60. DiMaggio P, Hargittai E. From the 'Digital Divide' to 'Digital Inequality': Studying internet use as penetration increases. *Center for Arts and Cultural Policy Studies. Working Paper #15*. (2001). <https://www.semanticscholar.org/paper/From-the-%27Digital-Divide%27-to-%27Digital-Inequality%27%3A-DiMaggio-Hargittai/dafc2865017233566d415370125286e41fd24ad2>
61. Dimaggio P, Hargittai E, Celeste C, Shafer S. Digital inequality: From unequal access to differentiated use. *Social Inequality*. 2004:255-400. ISBN 0871546205, 9780871546210. <https://www.scholars.northwestern.edu/en/publications/digital-inequality-from-unequal-access-to-differentiated-use>
62. Payán DD, Rodriguez HP. Telehealth disparities. *Health Affairs*. 2021;40(8):1340. doi:10.1377/hlthaff.2021.00940
63. U.S. Census Bureau. Projections of the size and composition of the U.S. population: 2014 to 2060. 2015. <https://pdfs.semanticscholar.org/09c9/ad858a60f9be2d6966ebd0bc267af5a76321.pdf>. Accessed 04/30/2022
64. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. 2016. https://www.cdc.gov/aging/pdf/cognitive_impairment/cogimp_poilicy_final.pdf. Accessed 04/30/2022
65. Hayes SL, Salzberg CA, McCarthy D, Radley D, Abrams MK, Shah T, Anderson G. High-need, high-cost patients: Who are they and how do they use health care? A population-based comparison of demographics, health care use, and expenditures. The Commonwealth Fund. 2016. <https://www.commonwealthfund.org/publications/issue-briefs/2016/aug/high-need-high-cost-patients-who-are-they-and-how-do-they-use>. Accessed 04/30/2022
66. Health Care Cost Institute. 2016 Health Care Cost and Utilization report. 2017. <http://www.healthcostinstitute.org/report/2016-health-care-cost-utilization-report/>. Accessed 04/30/2022.
67. Centers for Medicare and Medicaid Services. NHE by Age Group and Gender, Selected Years 2002, 2004, 2006, 2008, 2010, 2012, and 2014. 2014. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet#:~:text=Per%20person%20personal%20health%20care,%2Dage%20person%20\(%247%2C153\)](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet#:~:text=Per%20person%20personal%20health%20care,%2Dage%20person%20(%247%2C153)). Accessed 04/30/2022.
68. American Psychological Association Services, Inc. (2020). Phone only telehealth services for Medicare during COVID-19. <https://www.apaservices.org/practice/clinic/covid-19-telehealth-phone-only>. Accessed May 1, 2022.
69. Haskard Zolnieriek KB, Dimatteo MR. Physician communication and patient adherence to treatment: A meta-analysis. *Medical Care*. 2009;47:826–834. <http://dx.doi.org/10.1097/MLR.0b013e31819a5acc>
70. Vermeir P, Vandijck D, Degroote S, Peleman R, Verhaeghe R, Mortier E, Hallaert G, Van Daele S, Buylaert W, Vogelaers D. Communication in healthcare: a narrative review of the literature and practical recommendations. *Int J Clin Pract*. 2015 Nov;69(11):1257-67. doi: 10.1111/ijcp.12686
71. Hill R, Betts LR, Gardner SE. Older adults' experiences and perceptions of digital technology: (Dis)empowerment, wellbeing, and inclusion. *Computers in Human Behavior*.

- 2015;48:415-423. doi: 10.1016/j.chb.2015.01.062
72. American Psychological Association. Guidelines for psychological practice with older adults. 2014. <http://www.apa.org/practice/guidelines/older-adults.aspx>. Accessed May 1, 2022.
 73. Lepkowsky CM, Arndt SA. Functional Assessment of Currently Employed Technology Scale (FACETS): Reliability and validity. *International Journal of Medical Science and Clinical Invention*. 2018;5(9):4064-4068. <https://doi.org/10.18535/ijmsci/v5i9.07>
 74. Cabeza R, Grady CL, Nyberg L, McIntosh AR, Tulving E, Kapur S, Jennings JM, Houle S, Craik FI. Age-related differences in neural activity during memory encoding and retrieval: a positron emission tomography study. *J Neurosci*. 1997 Jan 1;17(1):391-400. PMID: 8987764. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6793692/>. Accessed may 10, 2022.
 75. Burke S, Barnes C. Neural plasticity in the ageing brain. *Nat Rev Neurosci*. 2006;7:30-40. <https://doi.org/10.1038/nrn1809>. Accessed may 10, 2022.
 76. Goh JO, Park DC. Neuroplasticity and cognitive aging: the scaffolding theory of aging and cognition. *Restor Neurol Neurosci*. 2009;27(5):391-403. doi: 10.3233/RNN-2009-0493. PMID: 19847066; PMCID: PMC3355626. Accessed may 10, 2022.
 77. American Psychological Association. Telehealth after the pandemic: CMS outlines proposed changes. 2021. <https://www.apaservices.org/practice/reimbursement/government/telehealth-after-pandemic>. Accessed May 1, 2022.
 78. American Psychological Association. Recent changes in CMS guidance for telehealth regarding the in-person visit requirement and place of service codes. 2022. <https://www.apaservices.org/practice/clinic/cms-telehealth-service-codes>. Accessed May 1, 2022.
 79. Centers for Medicare and Medicaid Services (CMS). CY2022 Telehealth update Medicare physician fee schedule. <https://www.cms.gov/files/document/mm12549-cy2022-telehealth-update-medicare-physician-fee-schedule.pdf>. Accessed May 1, 2022.
 80. Centers for Medicare & Medicaid Services. About Medicare. 2022. <https://www.medicare.gov/about-us>. Accessed May 9, 2022.
 81. Michigan Elder Justice Initiative. What is Medicare? 2022. <https://meji.org/topics/medicare-national-health-insurance-program-run-federal-government-certain-eligible-people>. Accessed May 9, 2022.
 82. Centers for Medicare and Medicaid Services. Physician fee schedule. 2022. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched>. Accessed May 9, 2022.
 83. Centers for Medicare and Medicaid Services. How is Medicare funded? 2022. <https://www.medicare.gov/about-us/how-is-medicare-funded>. Accessed May 9, 2022.
 84. Centers for Medicare and Medicaid Services. Office of Financial Management. 2022. https://www.cms.gov/About-CMS/Agency-Information/CMSLeadership/Office_OFM. Accessed may 9, 2022.
 85. Medicare Payment Advisory Committee. Report to the Congress. 2021. <https://www.medpac.gov/document/june-2021-report-to-the-congress-medicare-and-the-health-care-delivery-system/>. Access May 9, 2022.
 86. The boards of trustees, federal hospital insurance and federal supplementary medical insurance trust funds. 2021 annual report of the boards of trustees of the federal hospital insurance and federal supplementary medical insurance trust funds. 2022. <https://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cms.gov/files/document/2021-medicare-trustees-report.pdf>. Accessed May 9, 2022.
 87. Berkowitz E. Medicare and Medicaid: the past as prologue. *Health Care Financ Rev*. 2005-2006 Winter;27(2):11-23. PMID: 17290633; PMCID: PMC4194925. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194925/>. Accessed may 9, 2022.
 88. Glied SA. Financing Medicare into the future: Premium support fails the risk-bearing test. *Health Affairs*. 2018;37(7). <https://doi.org/10.1377/hlthaff.2018.0008>. Accessed May 9, 2022.
 89. Cubanski J, Neuman T. Medicare's finances have gotten much worse in recent years,

- foreshadowing tough choices for November's winners. *Kaiser Family Foundation. Policy Watch*. 2022;. <https://www.kff.org/policy-watch/medicares-finances-have-gotten-much-worse-in-recent-years-foreshadowing-tough-choices-for-novembers-winners/>. Accessed May 9, 2022.
90. Folliard ET. Medicare bill signed by Johnson: 33 Congressmen attend ceremony in Truman Library. *Washington Post, Times Herald*. July 31, 1965. <https://www.proquest.com/docview/142611149>. Accessed May 9, 2022.
 91. United States Census Bureau. Statistical Abstract of the United States: 1965. <https://www.census.gov/library/publications/1965/compendia/statab/86ed.html>. Accessed May 9, 2022.
 92. United States Census Bureau. The population 65 years and older in the United States. 2018. <https://www.census.gov/library/publications/2018/acs/acs-38.html>. Accessed May 9, 2022.
 93. Centers for Medicare and Medicaid Services. NHE Fact Sheet. 2022. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet>. Accessed May 10, 2022.
 94. Alemayehu B, Warner KE. The lifetime distribution of health care costs. *Health Serv Res*. 2004 Jun;39(3):627-42. doi: 10.1111/j.1475-6773.2004.00248.x. PMID: 15149482; PMCID: PMC1361028. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361028/>. Accessed may 10, 2022.
 95. Cubanski J, Neuman T, Freed M. The facts on Medicare spending and financing. Kaiser Family Foundation. 2019. <https://www.kff.org/medicare/issue-brief/the-facts-on-medicare-spending-and-financing/>. Accessed May 10, 2022.
 96. Capretta JC. Rethinking Medicare. *National Affairs, Spring 2022*; 51. <https://www.nationalaffairs.com/publications/detail/rethinking-medicare>. Accessed May 10, 2022.
 97. Medicare FAQ. How the Medicare tax rate is changing. September 27, 2021. <https://www.medicarefaq.com/faqs/medicare-tax-rate/>. Accessed May 10, 2022.
 98. Fontenot K, Brandt C, McClellan MB. A primer on Medicare physician payment reform and the SGR. 2015. USC-Brookings Schaeffer on health policy. <https://www.brookings.edu/blog/usc-brookings-schaeffer-on-health-policy/2015/02/02/a-primer-on-medicare-physician-payment-reform-and-the-sgr/>. Accessed May 12, 2022.
 99. Clemens J, Veuger S. Repeal of the Medicare Sustainable Growth Rate: Direct and indirect consequences. *AMA J Ethics*. 2015;17(11):1053-1058. doi: 10.1001/journalofethics.2015.17.11.pfor1-1511.
 100. U.S. Bureau of Labor Statistics. Inflation Calculator. 2022. <https://www.usinflationcalculator.com/>. Accessed May 10, 2022.
 101. Roy A. Saving Medicare from itself. *National Affairs, Spring 2022*; 51. <https://nationalaffairs.com/publications/detail/saving-medicare-from-itself>. Accessed May 10, 2022.
 102. Centers for Medicare and Medicaid Services. MACRA. 2022. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs>. Accessed May 10, 2022.
 103. Payerchin R. Physicians spend 4.5 hours a day on electronic health records. *Medical economics*. 2022. <https://www.medicaleconomics.com/view/physicians-spend-4-5-hours-a-day-on-electronic-health-records>. Accessed May 10, 2022.
 104. Yaraghi N. MACRA proposed rule creates more problems than it solves. *Health Affairs Forefront*. 2016. doi:10.1377/forefront.20161012.057043. Accessed May 10, 2022.
 105. Boyle P. U.S. physician shortage growing. American Academy of Medical Colleges: Workforce. 2022. <https://www.aamc.org/news-insights/us-physician-shortage-growing>. Accessed May 10, 2022.
 106. The complexities of physician supply and demand: Projections from 2018 to 2033. American Academy of Medical Colleges. 2022. <https://www.aamc.org/media/45976/download?attachment>. Accessed May 10, 2022.

107. Ochieng N, Schwartz K, Neuman T. How many physicians have opted-out of the Medicare program? Kaiser Family Foundation. 2020. <https://www.kff.org/medicare/issue-brief/how-many-physicians-have-opted-out-of-the-medicare-program/>. Accessed May 10, 2022.
108. Yu J, Jena AB, Mandic PK, Golberstein E. Factors Associated with Psychiatrist Opt-out from US Medicare: an Observational Study. *J Gen Intern Med*. 2019 Nov;34(11):2460-2466. doi: 10.1007/s11606-019-05246-6. Epub 2019 Aug 16. PMID: 31420824; PMCID: PMC6848419.
109. Nordal K. Re: Request for information regarding implementation of the Merit-Based Incentive Payment System, promotion of alternative payment models, and incentive payments for participation in eligible alternative payment models. *American Psychological Association*. 2015. <https://www.apaservices.org/practice/update/2015/11-19/comment-letter.pdf>. Accessed May 10, 2022.
110. Price S. States with the highest healthcare workforce shortages. ValuePenguin. 2022. <https://www.valuepenguin.com/states-highest-healthcare-workforce-shortages>. Accessed May 10, 2022.
111. Claxton G. How private insurance works: A primer. Kaiser Family Foundation. 2002. <https://www.kff.org/wp-content/uploads/2013/01/how-private-insurance-works-a-primer-report.pdf>. Accessed May 10, 2022.
112. 2021 employer health benefits survey. Kaiser Family Foundation: Health costs. 2021. <https://www.kff.org/report-section/ehbs-2021-section-1-cost-of-health-insurance/>. Accessed May 10, 2022.
113. Jones SB. Medicare influence on private insurance: good or ill? *Health Care Financ Rev*. 1996 Winter;18(2):153-61. PMID: 10167855; PMCID: PMC4193643. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4193643/>
114. Lopez E, Neuman T, Jacobson G, Levitt L. How much more than Medicare do private insurers pay? A review of the literature. Kaiser Family Foundation: Medicare. 2022. <https://www.kff.org/medicare/issue-brief/how-much-more-than-medicare-do-private-insurers-pay-a-review-of-the-literature/>. Accessed May 10, 2022.
115. Houser, Douglas G. "Good faith as a matter of law: The insurance company's right to be wrong." *Tort & Insurance Law Journal* 27. 1992;3:665-77. <http://www.jstor.org/stable/25762339>. Accessed May 9, 2022.
116. Kornblum GO. *First Party Insurance Bad faith: A Defense perspective*. Chicago, IL: Defense Research Institute; 1988.
117. Miller S. Health plan cost increases for 2022 return to pre-pandemic levels. Society for Human Resource Management. 2022. <https://www.shrm.org/resourcesandtools/hr-topics/benefits/pages/health-plan-cost-increases-return-to-pre-pandemic-levels.aspx>. Accessed May 10, 2022.
118. U.S. Health Insurance Industry Analysis Report. National Association of Insurance Commissioners. 2022. <https://content.naic.org/sites/default/files/inline-files/2020-Annual-Health-Insurance-Industry-Analysis-Report.pdf>. Accessed May 10, 2022.
119. Uscher-Pines L, Arora N, Jones M, Lee A, Sousa JL, McCullough CM, Lee S, Martineau M, Predmore Z, Whaley CM, Ober AJ. Experiences of health centers in implementing telehealth visits for underserved patients during the COVID-19 pandemic: Results from the Connected Care Accelerator Initiative, Santa Monica, Calif: RAND Corporation, RR-A1840-1, 2022. As of May 04, 2022: https://www.rand.org/pubs/research_reports/RR1840-1.html. Accessed May 10, 2022.
120. Equity in Telehealth: Taking Key Steps Forward. American Medical Association. 2022. <https://www.ama-assn.org/system/files/issue-brief-equity-in-telehealth.pdf>. Accessed May 10, 2022.
121. Maheu MM. Audio-Only Telehealth Update: A Classic Solution to a Modern Crisis. Telehealth.org. 2022. <https://telehealth.org/audio-only-telehealth/>. Accessed May 10, 2022.
122. American Medical Association. 2021 Telehealth Survey Results. 2022. <https://www.ama-assn.org/system/files/telehealth-survey-report.pdf>. Accessed May 10, 2022.