# Equity in Telemedicine for Older Adults During the Covid-19 Pandemic

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## *Abstract*

The COVID-19 pandemic spurred unprecedented progress on a paradigm shift to telemedicine to limit exposure to the virus. Telemedicine has many benefits. In the West China Hospital of Sichuan University, we use it to do COVID-19 related tele-educations to health professionals and general population, tele-diagnosis, online treatment and internet-based drug prescription and delivery. However, at our practices, we are noticing that many older adults could not make appointment with doctors due to their difficulty using the internet-based platform. We worried that older adults who need healthcare the most are not well prepared for this rapid change. We need to pay attention to avoid causing treatment disparities for vulnerable older adults 60 years of age and over. Researchers and policy makers should work together to study effective strategies and make proper policies to mitigate barriers older adults face when using telemedicine.

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# Original Manuscript

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## Abstract

The COVID-19 pandemic spurred unprecedented progress on a paradigm shift to telemedicine to limit exposure to the virus. Telemedicine has many benefits. In the West China Hospital of Sichuan University, we use it to do COVID-19 related tele-educations to health professionals and general population, tele-diagnosis, online treatment and internet-based drug prescription and delivery. However, at our practices, we are noticing that many older adults could not make appointment with doctors due to their difficulty using the internet-based platform. We worried that older adults who need healthcare the most are not well prepared for this rapid change. We need to pay attention to avoid causing treatment disparities for vulnerable older adults 60 years of age and over. Researchers and policy makers should work together to study effective strategies and make proper policies to

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**Keywords**

Equity; Telemedicine; Older Adults; COVID-19

Telemedicine uses information and communication technologies to provide health services when participants are in different locations. There are many benefits associated with telemedicine. For example, it can facilitate treatment, chronic disease management, and patient self-care, while educating people about their conditions and encouraging positive life-style change [1], especially for those living in remote areas and places in which there is a shortage of health professionals. At the same time, telemedicine can help avoid costly hospitalizations while allowing care through remote patient monitoring and incorporating family members into the treatment process [2,3]. As a result, uptake of telemedicine in developed and developing countries have been increasing in the past decades.

The outbreak of coronavirus disease 2019 (COVID-19) changed the world. As companies and schools adopt work-from-home solutions, remote consultation has also become an increasingly attractive option in healthcare. The pandemic spurred unprecedented progress on a paradigm shift to telemedicine to limit exposure to the virus. The WHO is advocating for telemedicine to provide health care for patients in need and to reduce risk of them spreading the virus by traveling to hospitals [4]. In United States, the Centers for Medicare & Medicaid Services issued a 1135 Waiver that expanded telemedicine coverage for all Medicare patients during the COVID-19 pandemic. The European Center for Disease Prevention and Control (ECDC) suggest the use of telemedicine when possible and without compromising the quality of the offered service in the ECDC Technical Report [5]. In China, many hospitals initiated tele-education, tele-diagnosis, tele-consultation, internet-based drug prescription and delivery immediately after the outbreak of COVID-19. Telemedicine played an important role during this pandemic, however, are older adults who need healthcare the most well prepared for this rapid change?

In United States, one-third of adults ages 65 and older did not use internet in 2016. Of those who do use the internet, nearly half say they need someone else’s help to set up or use a new digital device. In Switzerland, about 40% of those aged 60-69 did not use the Internet in 2014. Among older individuals in the U.K. (age 75+), 57% had never used the Internet in 2016 [6]. In China, about 83% people aged 60 years old and above did not use Internet in 2018 [7]. Among those who do use Internet, majority of them use it for entertainment. Zhao compared utilization of online medical

platform (Chun Yu Yi Sheng) between older adults and non-older adults [8]. In 2017, Chun Yu Yi Sheng provided 330,000 consultations every day. Based on analysis of 910,000 cases, people aged 60 years old and above only accounted for 1 · 98% (19,464 cases). Studies show that the ability to use Internet varied among older adults, where people with higher income and education are more capable to use it [6]. However, the pandemic has changed the way how the health systems work. We are worried that the older adults are not well prepared for this change.

As one of the leading hospitals in China, West China Hospital of Sichuan University activated its telemedicine network immediately after the outbreak of COVID-19 in January 2020 to reduce risks of cross-infection. Experts provided many services through this service, including COVID-19 related tele-educations to health professionals and general population, tele-diagnosis, online treatment and internet-based drug prescription and delivery [9]. However, at our practices, we are noticing that many older adults could not make appointment with doctors due to their difficulty using the internet-based platform. Even though we provide online services for chronic disease management and internet-based drug prescription and delivery, many older adults could not use them due to limited digital literacy and limited access to internet. Taking our hospital as an example, at the beginning of the pandemic (through January 25$^{th}$ to February 7$^{th}$), 3986 patients had received prescriptions or medicines through the internet-based services, of which 123 are older adults, accounting for only 3 · 09%. The disparity in the number of older adults utilizing telemedicine venues further highlights their need for an improvement in healthcare access. This “bottleneck” will only increase if nothing is done to address the concerns mentioned above.

Many countries are rapidly adopting measures that involve telemedicine, underscoring its necessity in facilitating social distancing goals during the COVID-19 pandemic. We believe an increase in telemedicine access could profoundly benefit older patients in multiple ways. It reduces potential exposure to COVID-19 while at the same time reduces the physical burden of having to come in for a visit. However, society needs to avoid causing treatment disparities for vulnerable older adults 60 years of age and over. As a whole, they are more likely to need healthcare compared to other age groups, and yet are the most likely to lose access to healthcare during the current shift to telemedicine. Therefore, researchers and policy makers should work together to study effective strategies and make proper policies to mitigate barriers older adults face when using telemedicine. Some issues that need to be addressed for this age group include how to increase accessibility to digital devices and internet, how to improve their digital literacy and acceptability of telemedicine, and how to more efficiently reimburse for telemedicine.

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Authors' contributions

WK designed and drafted the manuscript. GZ collected and analyzed the data. YN drafted and revised the manuscript. YC and JL searched literatures. YW revised the manuscript. PQ designed, drafted, and revised the manuscript. All authors read and approved the final manuscript.

Conflicts of Interest

We declare no competing interests.

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