Current Commentary

Ensuring Equitable Implementation of Telemedicine in Perinatal Care

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The use of telemedicine in U.S. perinatal care has drastically increased during the coronavirus disease 2019 (COVID-19) pandemic, and will likely continue given the national focus on high-value, patient-centered care. If implemented in an equitable manner, telemedicine has the potential to reduce disparities in care access and related outcomes that stem from systemic racism, implicit biases and other forms of discrimination within our health care system. In this commentary, we address implementation factors that should be considered to ensure that disparities are not widened as telemedicine becomes more integrated into care delivery. (Obstet Gynecol 2021;137:487–92) DOI: 10.1097/AOG.0000000000004276

Telemedicine, defined as two-way, real-time communication between a patient and practitioner, has emerged as an effective and valuable care modality.1 Several studies have demonstrated that telemedicine results in similar outcomes and increased patient satisfaction for low-risk pregnancies and improves access to subspecialty care for those living in underserved areas.2–5 With widespread uptake in response to the coronavirus disease 2019 (COVID-19) pandemic and endorsement by the American College of Obstetricians and Gynecologists, telemedicine is likely to remain widely available even after the pandemic ends.6–8

Given the stark inequities associated with U.S. pregnancy care, the potential effect of telemedicine on care access, experience, and outcomes is of particular importance.9–11 Patients living in remote geographic locations or experiencing lack of transportation, childcare, or job security face significant barriers to attending in-person visits, affecting their ability to access necessary care.12 Care experience and quality can also be influenced by stressful or discriminatory encounters within the health care environment, inability of support people to join appointments, and limited options for health care practitioners.13,14 Telemedicine presents a promising opportunity to address these social determinants of health and their resulting inequities. However, without careful attention to factors that will improve availability, uptake and experience, disparities could increase as telemedicine becomes more widespread.15 During a pandemic that has highlighted the inequities faced by specific populations such as Black, Indigenous, and People of Color and those living on low incomes, it is critical to ensure that telemedicine improves, rather than worsens, outcomes for those already marginalized by the health care system.

In this commentary, we present considerations for health care practitioners, health care systems, payers, policy makers, and researchers to promote equitable implementation of telemedicine and ensure benefit for those facing disparities.
BARRIERS TO EQUITABLE IMPLEMENTATION OF TELEMEDICINE

Health Care Practitioner Factors
Health care practitioner attitudes and perceptions—including inherent biases and assumptions—may result in differential and inequitable implementation of telemedicine. In studies examining patient portal use, Latino, Black, and individuals living on low income were less likely to be offered patient portal access and had significantly lower uptake compared with commercially insured White individuals.16,17

Our group found similar themes as we began implementing video visits before the start of the COVID-19 pandemic. Many maternity care practitioners at San Francisco General Hospital, a hospital serving predominantly uninsured and Medicaid-insured individuals, expressed skepticism that patients would have the necessary technology for telemedicine and, therefore, did not consider this a viable care option.18 In response, we conducted a phone survey with 202 San Francisco General Hospital patients whose in-person visits had been converted to phone visits because of COVID-19 concerns to explore interest in and barriers around video visits.19 Among the 92 patients scheduled for pregnancy-related visits, 78% were interested in having a video visit, 86% of those interested had a video-enabled device and sufficient internet access, and 69% were able to download the necessary device application and complete a trial video visit during the survey call.

Health Care System Factors
Safety net health systems and community health centers—which serve large numbers of individuals living on low incomes—have lagged in offering telemedicine.20 Lack of supportive infrastructure likely plays a significant role in this trend, as witnessed in our own community’s experience. Early in the COVID-19 pandemic, we observed dramatically different uptake of telemedicine at our two pregnancy care practices, despite many of the same clinicians practicing in both systems. At University of California San Francisco Medical Center, an academic referral center, clinic workstations were already video-enabled and a robust telehealth department provided training, support, and tip-sheets to all clinicians and patients.21 Clinical staff were also trained and available to assist patients and practitioners both before and during their visits. In this context, the percent of pregnancy-related visits delivered by video rose from 1% in February 2020 to 59% in April 2020. In contrast, at our San Francisco General Hospital safety-net practice where this infrastructure did not yet exist, phone visits remain the only remote option for a vast majority of patients.

Patient Factors
Absence of technology or reliable internet coverage, low health and digital literacy, and being a non–English speaker can present barriers to teledmedicine use. These social determinants of health disproportionately affect individuals in rural areas, those identifying as Black, Indigenous, and People of Color, and those living on low incomes.22–24 Roughly one in four Americans may not have adequate technology, internet access, or digital literacy skills to engage in video visits without more dedicated technology infrastructure, technical assistance, and support.22,25,26 Of note, pregnant people, who are younger on average than the general population, may be less affected by technology access and digital literacy barriers than others.18

Our study among patients in the safety-net system revealed that a majority of prenatal and postpartum individuals were interested in video visits and had no barriers to engaging in a trial video visit.19 More non–English speakers preferred to have a video rather than a phone visit (87% vs 60% of English speakers), consistent with prior studies that have shown communication barriers are more easily overcome with a video aid compared with telephone.27 Importantly, those who lacked digital literacy, defined as being unable to use their device or connect to the internet and complete a trial visit, were more likely to identify as Black or Latina and be non–English speaking, consistent with prior studies among nonpregnant populations.24

Technology factors aside, patient experiences and perceptions of telemedicine may heavily influence use. Anecdotally, patients have shared a number of concerns including feeling rushed and less engaged with their care practitioners, not having the necessary equipment or training to monitor their blood pressures, and feeling that virtual check-ins (telemedicine and text messaging) were being used to reduce costs or keep certain patients out of facilities. In our phone survey study, we noted a difference based on race–ethnicity regarding interest in video visits: 36% of Black patients were not interested in video visits compared with 20% of non-Black patients. It is possible that the concept of video visits exacerbates an already high level of mistrust of the health care system among Black people, who have historically suffered in the name of medical research and innovation.28 This trend is consistent with another study that demonstrated that Black participants had a higher rate of
telemedicine-related concerns compared with Latino participants, including the inability to monitor the practitioner’s qualifications and loss of privacy and confidentiality. Additionally, the long history of policing and criminalizing Black, Indigenous, and People of Color individuals in their homes may lead to discomfort around medical practitioners seeing their home environments.

Payer and Policy Factors

State Policy

In 2018, Medicaid financed 43% of births nationwide and up to 63% of births in some states. Thus, supportive Medicaid coverage of telemedicine services is essential for ensuring equitable implementation for pregnant and postpartum individuals. However, state Medicaid programs continue to restrict coverage of telemedicine and other remote management services. Before the COVID-19 pandemic, only 19 state Medicaid programs explicitly recognized the patient’s home as an eligible originating site for telemedicine and even then, only under certain circumstances. In addition, all states required practitioners to be licensed within the state where the patient was receiving their care, thereby limiting patients from accessing telemedicine services from out-of-state practitioners. These restrictions disproportionately affect patients who live in areas with few subspecialty practitioners or who have transportation and other practical barriers, and result in a missed opportunity for telemedicine to provide more equitable access to care.

Payment parity—equal reimbursement for remote and in-person visits—ensures there is no financial disincentive to offer telemedicine and is a foundational step to facilitating equitable and widespread access. This payment structure is particularly nuanced for community health centers, including federally qualified and rural health clinics, which are reimbursed under the Prospective Payment System. Even when a state Medicaid program adopts payment parity, community health centers may not be reimbursed equally for remote visits. For example, although California Medicaid adopted payment parity in August 2019, state policy explicitly excluded video visits from receiving the enhanced Prospective Payment System payments that community health centers receive for in-person visits, creating a disincentive for clinics to offer this modality.

Lack of coverage for audio-only services creates another barrier to telemedicine given aforementioned disparities in digital access and literacy. Patients and practitioners alike report that improved coverage and reimbursement of audio-only or telephone services have been essential during the COVID-19 pandemic.

Federal Policy

Supportive Medicare policy is crucial as it forms the basis for many state Medicaid policies. Before the COVID-19 pandemic, only Medicare-insured patients living in rural areas could access telemedicine services, and they were required to travel to a local health care facility to do so. Statutory restrictions also precluded community health centers from furnishing telemedicine services to patients with Medicare insurance at offsite locations. Congress has waived these restrictions during the pandemic, allowing more universal access to telemedicine. However, this will end unless policy makers act to make these changes permanent.

Equipment Coverage

Insurance coverage of equipment for blood pressure and weight monitoring is important to ensure that patients living on low-incomes can benefit from telemedicine as frequently and safely as those who can afford to purchase equipment on their own. The mechanism by which equipment is covered is also important. For example, when equipment is covered through the durable medical equipment benefit category, it must be supplied by certified durable medical equipment vendors, which often have limited locations and hours and do not have the personnel to train patients on appropriate use. To overcome these barriers, some Medicaid plans cover at-home monitoring equipment as a pharmacy category benefit instead, and some practices order the equipment to be delivered to their office so the patient can retrieve and receive education on use during an in-person visit.

CONCLUSION

Systemic racism and other forms of discrimination within our health care system have led to the inequities in pregnancy care outcomes evident today. Telemedicine has emerged as a promising modality to improve access to care across the population; but without careful attention to the barriers faced by underserved groups, not all patients will be able to benefit equally from this modality and disparities will be exacerbated. Our recommendations, listed in Box 1, address the social determinants of health within each level of the system and highlight actions that can be taken by health care stakeholders and researchers to ensure that care equity is prioritized.

VOL. 137, NO. 3, MARCH 2021

Ukoha et al Equitable Telemmedicine in Perinatal Care 489
Box 1. Recommendations to Promote Equitable Implementation of Telemedicine

Individual practitioners
• Acknowledge and mitigate implicit biases to ensure telemedicine is offered to every patient who is medically eligible.
• Systematically identify and document practitioner difficulties in conducting visits with patients who have lower digital access and literacy, limited English proficiency, and other unique barriers to help identify additional tools and support required.

Health care delivery systems
• Ensure that the adopted telemedicine platform is both secure and widely useable (eg, accessible through a smartphone and user friendly).
• Partner with community-based organizations to develop and disseminate patient-centered educational tools and trainings to increase digital literacy.
• Provide technological and clinical infrastructure including patient-centered educational tools; adequate ancillary staff to support both patients and practitioners; phone and video-based interpreter services; clinical visit workflows; and training for all staff and practitioners about telemedicine etiquette and respectful care.
• Allow for telephone visits when video visits are not feasible or not desired, even if reimbursement is lower.
• Respect patient autonomy and support decisions to opt-out of telemedicine visits when in-person is preferred.
• Conduct rigorous quality assurance efforts, including monitoring use by patient sociodemographic characteristics and assessing patient and clinician experience.

Payers
• Make telemedicine a standard covered benefit for any pregnancy-related visit that a practitioner deems clinically appropriate.
• Cover at-home monitoring equipment through a prescription or employ innovative solutions to facilitate patients’ access to this equipment.
• Provide mobile devices with data plan or Wi-Fi (eg, hotspot) for patients who cannot afford them but could particularly benefit from telemedicine.
• Allow health systems to choose a telemedicine platform that works best for their practitioners’ and patients’ needs, to ensure that patients can easily and effectively connect with their care teams.

Policy Makers
• Ensure payment parity for video visits across payers and practice sites, including community health clinics.
• Require coverage for at-home equipment (eg, blood pressure cuff and monitor) necessary for a comprehensive prenatal visit.
• Require reimbursement of audio-only visits.

Box 1. Recommendations to Promote Equitable Implementation of Telemedicine (continued)

• Remove outdated coverage restrictions for individuals with Medicare and Medicaid insurance, including originating site requirements, practitioner restrictions, and synchronous audio–video specifications.
• Expand affordable access to the technology required for patients to participate in telemedicine visits, including broadband internet, Wi-Fi services, and mobile data.
• Implement policies that facilitate practitioners’ abilities to practice telemedicine across state lines and remove existing barriers to multi-state licensure, such as costly and burdensome application processes.
• Increase funding by federal agencies, such as the Agency for Health Care Research and Quality and others, to support research that will ensure equitable access and experience with telemedicine.

Researchers
• Collect and analyze data on telemedicine use and access, patient experience, cost-effectiveness, and outcomes, including using large qualitative and mixed-methods studies, stratified by sociodemographic factors.
• Investigate how changes in telemedicine affect health care practitioner satisfaction in different health care systems with differing populations.
• Prioritize and disseminate community-informed research, including focus groups with Black, Indigenous, and People of Color, those living on low incomes, and those living in rural communities, regarding implementation strategies and barriers to use.

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