TELEHEALTH IN MATERNAL AND CHILD HEALTH CARE

Summary

Telehealth is increasingly used across a range of health care specialties of interest to March of Dimes, including obstetrics, maternal-fetal medicine, and mental health. The Telehealth Resource Center, a leading national consortium of telehealth networks, defines telehealth as “a collection of means or methods for enhancing the health care, public health, and health education delivery and support using telecommunications technologies.” According to the Center for Connected Health Policy (CCHP), the term “telemedicine” typically refers to traditional clinical diagnosis, monitoring, and treatment of patients delivered remotely via technology. However, CCHP notes that “telehealth” is more commonly used to describe “the wide range of diagnosis and management, education, and other related fields of health care.”

Telehealth Domains

Provision of telehealth services typically fall into one of four distinct domains:

- Videoconferencing (Synchronous): Live, two-way audio and video allows providers and patients to see and hear each other in real-time to discuss conditions.
- Store-and-Forward (Asynchronous): Transmission of medical imaging such as x-rays, photos, ultrasound recordings, or other static and video medical imaging through an electronic communications system to remote specialists for evaluation, analysis, and future consultation.
- Remote Patient Monitoring (RPM): Personal health and medical data is collected from an individual in one location and electronically transmitted to a provider in a different location for use in care and related support.
- Mobile Health (mHealth): Self-managed patient care using wireless technology such as mobile phones and tablets that does not necessarily involve monitoring by a provider. mHealth is frequently used to deliver or reinforce patient education about preventative care and promote health behavior.

Use of Telehealth in Maternity Care

There is reason to focus specifically on telehealth in maternity care, as in recent years, telehealth has been incorporated into many aspects of women’s health care, including: virtual patient consultation with specialists, remote observation of ultrasound recordings by maternal-fetal medicine experts, postpartum blood pressure monitoring using Wi-Fi connected devices, and fertility tracking with patient-generated data. Additionally, a robust and growing body of evidence shows largely positive outcomes associated with the provision of telehealth services in maternity care.

Evidence: Telehealth and Maternal and Infant Outcomes
Evidence on a range of services and telehealth domains suggests telehealth services provide comparable outcomes to traditional methods of healthcare delivery. A 2020 systematic review of telehealth interventions in the journal Obstetrics & Gynecology found that a number of telehealth interventions were associated with outcomes known to improve the health of moms and babies. In particular, telehealth interventions were associated with improvements in obstetric outcomes related to perinatal smoking cessation and breastfeeding. The authors note that “further research is needed to help clinicians determine how to integrate telemedicine into practice in ways that improve patient care.”

Available literature illustrates how telehealth can provide care that results in similar, or better, outcomes for moms and babies, than traditional in-person care.

In a 2016 study of low-risk pregnancies, investigators compared perinatal outcomes in 117 women opting for a program of nine in-person prenatal visits and five virtual prenatal visits to 941 women receiving up to 14 in-person prenatal visits. Women in the virtual cohort had an initial virtual visit with an obstetric advanced registered nurse practitioner (ARNP) between week 12 and week 15, with four additional virtual visits with the ARNP during weeks 16, 24, 30, and 34. A final virtual visit took place two weeks postpartum. The remaining nine prenatal visits were in-person with a physician and coincided with standard requirements and pregnancy milestones such as ultrasounds and labs. A final in-person visit occurred six weeks postpartum. Each patient in the virtual cohort received a digital blood pressure monitor and a handheld fetal Doppler monitor. During each of the virtual prenatal visits, the patient would weigh herself, take her blood pressure, and the ARNP would assess the rate, rhythm, and regularity of the fetal heart tones while videoconferencing. The ARNP then recorded these data in the patient’s electronic medical record for review by the obstetrician.

- This study found no significant differences in the rates of cesarean birth, preterm birth, NICU admissions, or birth weight between the two groups. This is despite a statistically significant higher rate of preeclampsia in the virtual visit cohort.
- Because this study focused specifically on low-risk pregnancies and did not deviate from standard prenatal assessments, the authors note that they “believe the program can be easily adapted by practices that use an [electronic medical records] system, which facilitates easy sharing of patient information between ARNP and physician.” They further note that the findings could be especially useful to practices “under pressure to provide safe and satisfying care to an increasing number of patients” as “the model allows providers to commit additional time to...high-risk women without loss of revenue for the practice due to the global billing structure of prenatal care.”
- A related 2017 study looked at the results of a patient satisfaction survey for women participating in the same program of either traditional prenatal care (up to 14 in-person visits) or virtual prenatal care (with up to one-third of prenatal visits done via videoconference, on the schedule described above). This study found that patient satisfaction was significantly higher among women in the virtual visit group, although the survey response rate was relatively low and the absolute differences between in-person and virtual visits were so small as to be of questionable clinical significance.

Increases in maternal morbidity in recent years has led to an increased reliance on maternal-fetal medicine specialists. Despite the increased demand, many pregnant women in the United States, especially those living in rural areas, lack access to these specialists. Additionally, the availability of
maternal-fetal medicine providers is inversely related to poor maternal outcomes and maternal mortality.

- A 2019 study of women in rural Pennsylvania found that women receiving telehealth consults from a maternal-fetal health specialist had similar outcomes to those who received in-person consults.
- Regarding infant outcomes, women in the telehealth group had lower rates of premature delivery and their infants had lower rates of NICU admission than women in the in-person group.
- The study also finds cost savings and strong satisfaction among participants. Cost savings in the form of travel and work-related expenses totaled over $90 per telehealth consult. High levels of patient satisfaction were reported, with 80% of respondents indicating they were very satisfied with their telehealth visit. Additionally, 74% of respondents indicated that the telehealth visits allowed a family member to attend the appointment with them who otherwise would not have been able to be there to provide support for the expectant mother. vi

A limited but emerging body of research is also examining the use of telehealth in treating particular subgroups of pregnant and postpartum women, including those with diabetes, postpartum depression and anxiety, hypertension, and opioid use disorder. Several studies of women with these conditions found no difference in outcomes between women who received treatment via telemedicine and those who received treatment in person. vii viii Since most of these studies focused on small subgroups of women, more research is needed to fully understand how telehealth can be used most successfully in these contexts. In particular, the “crossover between reproductive health and psychiatry constitutes a growth opportunity in telemedicine...given that tele-mental health is reimbursed more often than other specialties.” viii

Taken together, these studies and the growing body of evidence in this area indicate that telehealth can be an important tool for reaching both low- and high-risk pregnant women. While much of the telehealth research thus far has focused on reaching women in rural areas, March of Dimes’ own research shows that many women in urban areas also reside in neighborhoods that lack maternity care providers and hospitals with maternity units. ix

March of Dimes Policy

- Early and timely access to prenatal care is critical to ensure the best birth outcomes for all moms and babies. March of Dimes supports increased access to telehealth services as one way to eliminate barriers and reduce disparities in access to early prenatal care.
- State laws vary widely in terms of the types of telehealth services covered and reimbursement rates, and only a handful of state Medicaid programs specifically address obstetric care in their telemedicine reimbursement laws. March of Dimes believes that in order to reach the most at-risk women, state Medicaid programs need to include pregnancy-related care in their telehealth reimbursement policies.
- March of Dimes advocates for all payers to provide coverage for evidence-based telehealth services for pregnant and postpartum women, and supports the alignment of telehealth reimbursement approaches across payers.
- March of Dimes supports continued research and evaluation of telehealth programs for pregnant and postpartum women. A strong evidence base is essential to improving outcomes for all moms and babies.
During the COVID-19 pandemic, March of Dimes supports providing telehealth access to prenatal care (including group prenatal care), at home monitoring, consultations with maternal-fetal medicine specialists and genetic counselors, mental health care, lactation support, postpartum visits, and online communication with providers. To reduce the risk of COVID-19 exposure, March of Dimes believes that during this pandemic, insurers should allow telehealth visits for any reason without co-pays, a policy some insurers have already implemented.¹

¹ Center for Connected Health Policy. A Framework for Defining Telehealth. Available at: https://www.cchpca.org/sites/default/files/2018-10/Telehealth%20Definintion%20Framework%20for%20TRCs_0.pdf

² Center for Connected Health Policy. What is Telehealth? Available at: https://www.cchpca.org/about/about-telehealth


⁹ March of Dimes. Nowhere to Go: Maternity Care Deserts Across the US. Available at: https://www.marchofdimes.org/materials/Nowhere_to_Go_Final.pdf