

### Overview

Serving the greater Pittsburgh area, UPMC Magee-Womens Hospital is a full-service hospital where nearly 10,000 babies are born each year, accounting for 45% of all births in Allegheny County.

In recent years, the hospital has sought to address perceived gaps in care, patient engagement and what it considered insufficient connection between outpatient and home-based care. Today, clinicians are embracing several new technologies as promising tools that have been under-used within women's health service and obstetrical care.

The goals for the adoption of new technology include increasing the engagement of expectant mothers during pregnancy, maximizing engagement, and enhanced education and self-advocacy for prenatal care.

Among the implemented technologies that have proven the most effective are:

- My Healthy Pregnancy, an app that helps women and their care providers track key health metrics during gestation.
- A digital engagement platform adopted by UPMC Magee-Womens to monitor blood pressures and symptoms among pregnant and postpartum women with hypertension disorders to improve clinical outcomes.
- Synchronous video visits (telemedicine) that connect physicians to high-risk patients with limited access to the urban academic medical center. UPMC Magee-Womens also has begun piloting synchronous video visits for prenatal consultations in a patient's home.



In addition, UPMC Magee-Womens Postpartum Hypertension Program tackles maternal morbidity and mortality by supplying enrolled patients with a blood pressure cuff for home use, providing instructions on how to send their results via text.

### Impact

Since February 2018, nearly 3,000 patients have enrolled in UPMC Magee-Womens' six-week postpartum support program. Overall, the hospital's approach has greatly reduced the number of in-person visits for blood pressure monitoring or to obtain prescription medications.

- 43% of enrolled patients avoided the need to come in for a Week 1 blood pressure check.
- 90% of enrolled patients self-reported blood pressure results at least weekly and a significant number self-reported up to five times per week.



- Close to 50% of patients managed their medication changes remotely, without requiring in-person consultation.
- A significant rise in the number of new mothers who schedule follow-up visits with their primary care providers within the first year of delivery.

The use of live synchronous video visits (telemedicine) for high-risk pregnancies has vastly expanded access to maternal fetal medicine (MFM) providers to counsel and treat pregnant women with underlying conditions, such as diabetes, chronic hypertension and autoimmune disease.

UPMC Magee-Womens conducts approximately 2,000 live synchronous video MFM consults each year. This saves patients, on average, about \$100 per visit in travel expenses and associated costs. Even better, these telehealth visits are credited with improved glucose control, reduced Caesarean rates and reduced prematurity in babies.

## Lessons Learned

Beth Quinn, director of women's health operations for the hospital, says new technologies and telemedicine have left no doubt about their worth and ability to improve the care experience.

"We get a lot of women saying this has been great for them because they feel like they can stay home and still be monitored and still feel connected to the care

they would have received if they were here," she said.

Hyagriv Simhan, M.D., executive vice chair for obstetrics and director of clinical innovation for the women's health service line, agrees with Quinn that today's patient care is moving in the right direction. But Simhan said a big takeaway lesson is that the regulatory environment surrounding the use of new medical technologies must catch up to the reality.

"These [technologies] have been in place for almost a decade, and the regulatory environment and reimbursement environment ought to catch up to allow these programs to be scalable."

Simhan also noted the issue of adequate connectivity must be addressed if live synchronous video visits are to grow in the future, especially in rural and rural-adjunct areas.

## Future Goals

The hospital anticipates expanding remote monitoring beyond hypertension, and is interested in connecting and repurposing some of its technologies — such as its pregnancy app or digital engagement platform — for clinical use in treating postpartum depression or perinatal mood disorder, with the emphasis again on providing these services close to, or even in the patient's home.


Quinn said UPMC Magee-Womens' future goals and direction will respond to the needs and habits of today's patients.


"The OB population is a young population. We know that most of them have phones and want to communicate in that way," she summed up.

## Contact

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