It isn't every day that a health system's program becomes the foundation for federal legislation, but that is what happened with Ochsner's Connected MOM (Maternity Online Monitoring) initiative, which uses digital health tools to offer expectant mothers a convenient way to safely manage their pregnancy in collaboration with their physicians.

The Louisiana health system's program caught the attention of Sen. Bill Cassidy, MD, R-La., who then used it as the foundation of his Connected Maternal Online Monitoring (MOM) Act, a bipartisan bill supported by the AMA.

"Using the latest technology, we can save lives," Dr. Cassidy said in a news release. "This bill allows moms with high-risk pregnancies, especially in underserved communities, to stay at home while her physician remotely monitors her and her baby's health."

Under the bill, Medicaid provides state programs with physiologic devices and related services to help improve health outcomes for pregnant and postpartum women.

"We believe that the adoption and provision of innovative technologies and devices to Medicaid patients to support patient monitoring of blood pressure and other vitals will change and strengthen the way care is delivered, result in better outcomes and improve the lives of mothers and children," Ochsner Health President and CEO Warner Thomas said in the release.

Ochsner, a member of the AMA Health System Program, started Connected MOM to offer a more patient-friendly, convenient option which reduced in-person clinical visits for women with low-risk pregnancies by giving them tools such as digital scales and Bluetooth-enabled blood-pressure cuffs that allowed them to take readings and transmit them via the electronic medical record to their physician and care team.

The program's value was made abundantly clear last spring during the start of the pandemic when
New Orleans was an early COVID-19 hot spot, and in-person office visits were discouraged. Connected MOM has since been expanded beyond low-risk pregnancies and there are plans to expand the program to Ochsner's diabetes and hypertension remote patient monitoring efforts.

Two Ochsner physician leaders recently spoke with the AMA about the program's origins, future plans and the infrastructure that would be needed to make Connected MOM a national program. They are:

- Joseph Biggio Jr., MD, co-chair of women's services and system chair for maternal-fetal medicine.
- Veronica Gillispie-Bell, MD, head of women's services at Ochsner Medical Center-Kenner.

AMA: Can you explain how the program evolved, and the impact of COVID-19?

Dr. Biggio: The program was originally created back in 2016. And it came out of a desire to improve convenience for patients, starting with low-risk patients who, it was felt that—especially after they've already had one baby—didn't really need as many in person prenatal visits and could get some of that care by monitoring themselves at home and being in contact with their doctors.

As people became more and more comfortable with the program, doctors were willing to extend enrollment to some patients who did not truly meet the original "low risk" criteria as a way to provide more frequent monitoring and contact with patients who have risk factors for pregnancy complications.

Then, when the first wave of the pandemic began last March, especially here in New Orleans where no one really knew what to expect in that early wave, we utilized Connected MOM to markedly modify how we were providing prenatal care.

Patients could still monitor blood pressure, monitor their weight and be in contact with their OB provider while minimizing the number of in-person visits during that major wave of the pandemic when
we were limiting in-office visits for anything other than an emergency.

Veronica Gillispie-Bell, MD

**Dr. Gillispie-Bell:** I was part of the pilot group when we launched it around 2015–2016, and I have been using it since that time. The patients really, really love it. It sounds ironic, but they feel more connected, because they’re taking their blood pressures and staying more connected generally more often than they would during traditional care. This data is integrated into Epic, our electronic health record.

In terms of the pandemic and that transition, it was Friday, March 13 when I was sitting in a parent-teacher conference at my son’s school, when we got the word that the schools were closing. And so, I was like, "Well, I know what's coming next."

By Monday, I was able to flip all of my patients to virtual visits. They felt protected because they did not have to come into the hospital and leave their home during the stay-at-home order. And I was able to still connect with them. With our platform through Epic, we're able to do virtual face-to-face visits.

We also know that the percentage of patients who comes in for a postpartum visit, is really low. When we think about reducing maternal morbidity, one of the key areas is around hypertension. And one of the recommendations is that we’re supposed to take a blood pressure within seven days of discharge from the hospital to make sure that blood pressures are not rising for those patients who have a hypertensive disorder.


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I was interested to see if we had better compliance with our patients that have Connected MOM compared to traditional care. Having been a new mom, it's a lot to come in for a visit with a newborn baby, just to have a 15-minute blood pressure check. As a physician, I know this visit is hugely important.

When we looked at it—and this is an unadjusted rate—the odds of having your blood pressure evaluated one week after discharge if you had a hypertensive disorder was two times higher with those patients enrolled in Connected MOM compared to traditional care.

That was something that we had looked at and I had been talking to Mary Moody, a health policy adviser in Sen. Cassidy's office, probably for about a year—maybe even a little bit longer because of my role at Ochsner and also my role with the Louisiana Department of Health as the medical director of the Louisiana Perinatal Quality Collaborative.

During one of our conversations, I told her about what we found from Connected MOM. And I think that was the data Sen. Cassidy was looking for to be able to really push for CMS [Centers for Medicare & Medicaid Services] to approve remote monitoring for pregnant patients.

**AMA: What's the role for Congress in helping this innovative idea gain wider adoption in American health care?**

**Dr. Gillispie-Bell:** It's great that we, as an institution, have the funding to supply these remote monitoring devices, but that's not going to be universally true across the United States. I recently testified before Congress, for the House Oversight and Reform Committee, about ways to improve the Black Maternal Health Crisis and discussed the prospects of telehealth. The Committee was very interested in seeing, from a congressional standpoint, what legislation could be made to improve access to telehealth.

From my perspective, this includes—from a funding standpoint—making sure all patients and all hospitals are able to offer remote monitoring, but that also means thinking about infrastructure. What infrastructure do we need, such as broadband and access to equipment like cellphones, to have systems like this exist?

**Dr. Biggio:** I second that. Since the inception of the program, Ochsner has provided the devices, the scale, the blood-pressure monitor—that are both Bluetooth-enabled—at no cost to the patient and at no cost to the insurer.

To be able to move this forward on a large scale, there is going to have to be some way to make it available to everyone. Somebody’s going to have to fund it. And I think from the health-equity standpoint, if it’s not part of a congressional mandate, we’re just going to see that implementation of
programs like this could actually drive further disparity as opposed to trying to reduce it.

One of the other aspects of this that we're in the process of working on is to develop what's missing to try to complete the circle of what's needed for the prenatal care: remote fetal monitoring. And so, we're exploring ways to incorporate that into this program as well.

**AMA:** What would that entail?

**Dr. Biggio:** There are apps on smartphones that supposedly let you hear the fetal heart rate. They don't work well enough for clinical use. But where technology is now, there are ways of essentially looking the fetal EKG with monitoring devices worn by the mother. We're working with a couple of companies to see if there are ways to do that from home and have that upload to the cloud in a way that is interpretable by the physician.

If we can do that—that really provides much more reassurance to the women and the providers for fetal well-being. It also enhances the ability for what we can begin to do for high-risk mothers in terms of monitoring from home. The need for frequent monitoring in high-risk pregnancies is a huge barrier to adequate care, especially in rural locations, but also in urban locations. If you could do that from the convenience of your home, it'd be so much easier.

**AMA:** For your coverage area, how big of an issue is broadband access? If this program were to go nationwide, does there have to be sort of a companion infrastructure-funding mechanism to go with it?

**Dr. Biggio:** In certain areas of Louisiana, there certainly are internet-access issues. And while the penetration of cellphones into markets is quite high, it's not universal. And this all does have to interface with a smartphone that has the capability for either a very good cellular signal or a good Wi-Fi broadband connection. So there are certainly, in some of the rural areas of Louisiana—and elsewhere in the South—where that is problematic.

**Dr. Gillispie-Bell:** The number of cellphone towers and access to broadband, is decreased in minority neighborhoods. So infrastructure definitely has to be considered.

I'm very interested, and hopeful, that Congress will consider infrastructure, because really, when we look at maternal morbidity and mortality, our rural areas, as well as our urban areas are disproportionately affected. We don't want to introduce telehealth as this new solution that's going to take care of everything and then further our disparities.

**AMA:** What comes next on this front?

**Dr. Biggio:** We're in the process of starting to leverage some of the other Ochsner Health digital programs that are in place with digital hypertension and digital diabetes and starting to look at how we
can begin to adapt that and overlay that with Connected MOM so that we can extend the program to offer expanded service for pregnant patients with medical conditions with Connected MOM 2.0.

We'll be able to take patients who have chronic hypertension and take what we've learned from that program with non-pregnant individuals and start to use that to better monitor, better control the underlying conditions in these individuals during pregnancy. We also want to do the same thing with our digital diabetes program as the ability to really improve diabetic control during pregnancy could have amazing impacts on pregnancy outcome.

**Dr. Gillispie-Bell:** I see a huge potential for this program to help with our maternal morbidity, especially related to hypertensive disorders. I think that it has the ability to help those moms in rural and urban areas who can't get to the doctor, who would have to take off a whole day of work to be able to come to the doctor.

We have built a health care system around the health care system—and not really around the patient. In 2021, it's time to start thinking about how we deliver care differently. And I think this is a huge tool that can help us do that.