

Written Testimony

Joint Democratic Policy Committee Hearing on Maternal Health Amidst COVID-19

February 10, 2021

Submitted by:

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Good morning. Thank you for inviting me to participate in this very important and timely policy hearing. My name is Dr. Sindhu Srinivas. I am a practicing obstetrician and maternal-fetal medicine physician at Penn Medicine. I am also the Director of Obstetrical Services, Vice Chair for Quality and Safety, Physician Lead of the Women's health Service Line and Co-Founder of the Heart Safe Motherhood program at Penn Medicine. Additionally, I Chair the Health Policy and Advocacy Committee of the Society for Maternal-Fetal Medicine (SMFM). I am honored to be here today.

As a practicing OBGYN- Maternal Fetal Medicine specialist I am among many of us who are on the front lines of the maternal morbidity and mortality crisis and am deeply troubled by rising morbidity and mortality rates and associated disparities. Prior to the current COVID 19 pandemic, we were actively working on developing many innovative strategies in partnership with patients to improve our care delivery during pregnancy and postpartum with a specific focus on reducing morbidity and mortality and disparities. While the COVID 19 pandemic has taken a significant toll on all of us, it has also inspired us to significantly accelerate the development and implementation of these innovative models with the goal of improving care with a focused, deliberate patient centered approach. Today, I will share a few examples of programs developed and implemented at Penn Medicine and also discuss important legislative opportunities that are critical to ensuring programs such as these continue to accelerate, and flourish.

The first two programs I will highlight are innovative remote and telehealth programs **during pregnancy**.

First, the Duet model of prenatal care was created by Dr. Florencia Polite and the general OBGYN providers based at the Hospital of the University of Pennsylvania. The goal is to standardize the approach to prenatal care that combines telehealth and in person visits. This has led to significant patient satisfaction and continued adherence to recommended prenatal care during the pandemic. This approach is one that likely should continue long term well after the pandemic is over.

Aligning payment approaches with this deliberate combination of in person and telehealth visits will be critical to the continued success of this model. This includes considering parity between video and audio visits as well payment and access to important tools needed for patients to have a successful telehealth visit, such as a blood pressure cuff.

Second, is a program called THEA led by a Penn Medicine colleague, Dr Anna Graseck. THEA is a current program for antenatal, home BP monitoring. All prenatal patients are enrolled in this bi-directional text-based program. Reminders are sent to patients via text message weekly or bi-weekly. It allows for regular blood pressure surveillance with automated feedback to patients and standardized escalation for concerning blood pressures that alert providers for early intervention. This creates an opportunity for more surveillance and care to occur in between visits. While this program was started pre-Pandemic, the Pandemic has certainly helped accelerate implementation. The next version of this program will include weekly push educational content for expecting patients providing information on topics such as dietary

considerations, mental health and physiological changes during pregnancy as a method of enhancing prenatal education in a more systematic innovative way with the goal of supporting patients throughout their pregnancy. Future legislative opportunities include direct mechanisms at the state level to support development, implementation and evaluation of this type of program. We appreciate our partnership with payers to date who have prioritized assisting with patients more easily obtaining blood pressure cuffs during the Pandemic. We want to ensure that this commitment continues and does not change or go away post pandemic.

What is striking about the maternal morbidity and mortality crisis is that more than half of the mortalities occur in the postpartum period, a time when patients are home, less connected to care, but still need us. This only underscores the importance of thinking out of the box and being innovative in developing patient centered approaches to care in the postpartum period as well.

At Penn medicine we are proud of a few programs that focus on this **4<sup>th</sup> trimester time period**. We have developed and successfully deployed a program called Heart Safe Motherhood at multiple Penn Medicine Hospitals and will soon be deployed at all the Philadelphia obstetric hospitals in partnership with the City Health department. The Heart Safe Motherhood program was co-founded by Dr. Adi Hirshberg and I and takes a scary diagnosis of hypertension in pregnancy—a leading cause of maternal morbidity and mortality - and turns it into a process of engagement and empowerment in self-management and self-monitoring. Patients have a home BP cuff, often now obtained during the pregnancy and if they do not have one, they are given one. They are enrolled into a bidirectional text-based platform that allows us to monitor them safely at home by providing information that we can act on when needed. It also leads to tremendous satisfaction from patients and improved health care engagement. Through this program we have been able to initiate blood pressure medications on patients at home and prevent significant morbidity that previously led them to being readmitted to the hospital. We have caught dangerously high blood pressures prior to their escalation and have prevented morbidity. Importantly, this program has eliminated health disparities in obtaining and treating dangerously high blood pressures in the postpartum period. We have taken a condition that has disproportionately impacts black women in the postpartum period and have improved the health for all women equally. The success of this program is in its patient centered approach and the engagement of patients in its development. Despite the multiple studies demonstrating its significant impact and elimination of disparities, the wide scale deployment in our current payment structure has been challenging. Legislative opportunities include mandating implementation of certain evidence-based programs, like this one as well as funding demonstration projects across the state where hospitals are given the support they need to implement programs like this. Not many programs have clearly shown that they can address not only morbidity but also disparities.

Finally, the last program I will mention, founded by another colleague at Penn Medicine, Dr. Kirstin Leitner, is called Healing at Home. In the traditional postpartum care model, patients face a variety of challenges. Complications post-delivery and mental health needs almost universally occur well before the routine scheduled visit and as we know nearly 50% of maternal morbidity and mortality occurs in this time period.

Healing at Home supports the postpartum needs of parents and babies in the setting they prefer using an innovative approach. Healing at home uses “Penny your virtual postpartum assistant,” a text-based automated postpartum chatbot, to help bridge the gap in fourth-trimester care by providing parents with around-the-clock access to clinical guidance. In addition to answering parents' concerns and providing just-in-time education, Penny the chat bot enables increased and more efficient lactation support and postpartum depression screening and facilitates triage to high-value care if necessary.

After pilot testing and partnership with patients, Healing at Home was implemented as a clinical program at HUP in March 2020. Since launching, more than 380 patients have enrolled in the program. Penny correctly and automatically answers 80 percent of patient inquiries providing patients with timely responses to their questions. The tool has also proven to work as an early-warning system for postpartum conditions. Of parents completing the postpartum depression screening on Penny, 25 percent have scored as at risk which has allowed providers to enact early clinical intervention. Recently, Penny also helped identify a patient having concerning heart symptoms postpartum which allowed that patient to get the care she needed at the right time-preventing a potentially devastating complication.

These programs demonstrate the tremendous opportunities for a patient centered, innovative approach to prenatal and postpartum care delivery that utilizes remote monitoring, artificial intelligence/chat bots, text-based platforms and telehealth visit strategies. Patients are engaged; they are looking for new and innovative ways to be active participants in their care and it is our job to partner with them and move these strategies forward.

There are many legislative and policy opportunities that will help accelerate the journey of these solutions from ideas, to programs that are piloted, tested and scaled. Importantly, these programs should be scaled in a way that promotes equity and eliminates disparities. In order to address this, polices should include provisions that:

- Increase broadband access for all patients
- Support and pay for medical equipment necessary for remote prenatal visits-such as blood pressure cuffs
- Support innovative strategies that enhance digital literacy, such as the use of community health workers
- Guarantee payment for language services during telehealth visits to provide quality care to every patient
- Reimburse telehealth visits at rates similar to in-person visits; create parity between video and audio visits as video visits are not always necessary and may actually lead to disparities in care
- Increase transmission and facility fees to encourage providers to offer telehealth services and incentivize implementation of innovative programs such as those described as well as telehealth services

The mission to ensure the health of our population during and after pregnancy is one that I know all of us share and are passionate about.

We are at a critical junction of tremendous interest and engagement from all sectors to be innovative in our approach to care delivery leveraging all of these new strategies. With a focus on policies that incentivize the integration of systems and accelerate and fund the development of innovative care delivery models as well as the deployment of programs that have shown evidence-based benefit like Heart Safe Motherhood, we can and will make a big difference in the lives of our patients and their families. Thank you again for providing me the opportunity to speak with all of you today. I look forward to continuing to work together.