



The Cuff Kit™ Project Informational Meeting

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Agenda

- Introductions
- Landscape/statistics
- The Cuff Kit program overview
- MHA grant opportunity
- Research partner/methodology (data review)
- Logistics – application, resources, timelines and process
- Next steps

Introductions

- The Cuff Kit Project Partners
 - Centers for Disease Control and Prevention, U.S. Health and Human Services and Missouri Department of Health and Senior Services: COVID-19 Statewide Health Disparities Initiative
 - Preeclampsia Foundation

Mission & Vision

Our purpose is to improve the outcomes of hypertensive disorders of pregnancy by *educating, supporting and engaging* the **community**, improving **healthcare practices**, and finding a **cure**.

We envision a world where hypertensive disorders of pregnancy no longer threaten the lives of mothers and their babies.

The Impact of Severe Maternal Hypertension & Preeclampsia



- Hypertension affects 10% of pregnancies in the US
- Preeclampsia affects 5-8% of pregnancies and is on the **rise**

BUT...



- Causes **1/3** of all obstetric complications
- Multi-organ dysfunction

9% of maternal deaths

6% of preterm births

19% of medically indicated preterm births

And is a leading cause of...

IUGR ▲ Placental abruption ▲ NICU admission ▲ Stillbirth ▲ infant death

How Is Preeclampsia Diagnosed?

- Blood Pressure (BP): 140+/90+ (2 readings 4 hours apart)

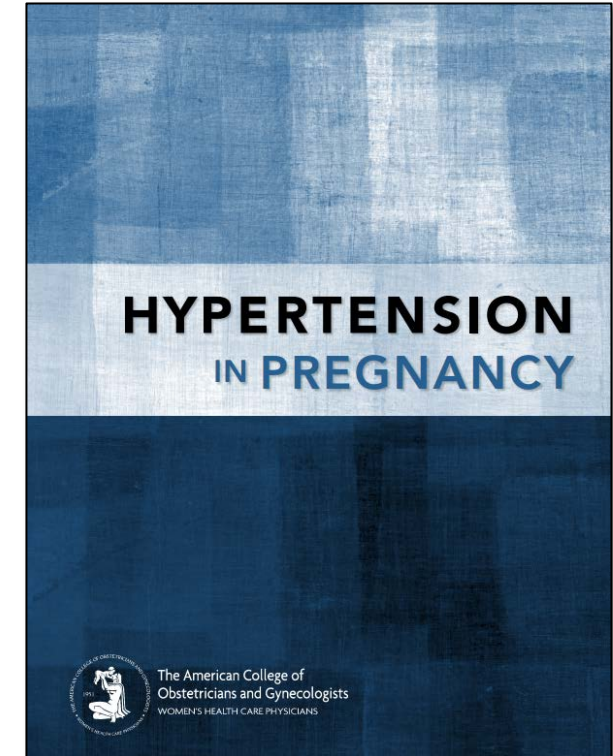
PLUS

- Proteinuria: 300+ mg in 24 hr urine collection
(Dipstick: 2+; Protein/creatinine ratio 0.3 or more)

AND/OR

- In association with (new onset):
 - Thrombocytopenia (**blood clotting**)
 - Impaired liver function (**liver**)
 - Renal insufficiency (**kidneys**)
 - Pulmonary edema (**lungs**)
 - Headache or visual disturbances (**brain, eyes**)

**Severe
Features**



Signs & Symptoms

- Headache that won't go away
- Visual disturbances (seeing spots or auras)
- Epigastric pain (upper right quadrant)
- Nausea/vomiting (2nd half of pregnancy)
- Sudden weight gain (5+ lbs per week)
- Breathlessness (difficulty breathing)
- Swelling of the face or hands
- “just not feeling right”; unexplained “anxiety”



Signs of Preeclampsia Síntomas de la preeclampsia



Stomach pain
Dolor de estómago



Headaches
Dolores de cabeza



Feeling nauseous;
throwing up
Náuseas, vómitos



Seeing spots
Ver manchas



Gaining more
than 5 pounds
(2.3 kg) in a week
Subir más de 5 libras
(2,3 kg) de peso en
una semana



Swelling in your
hands and face
Hinchazón en las
manos y en la cara

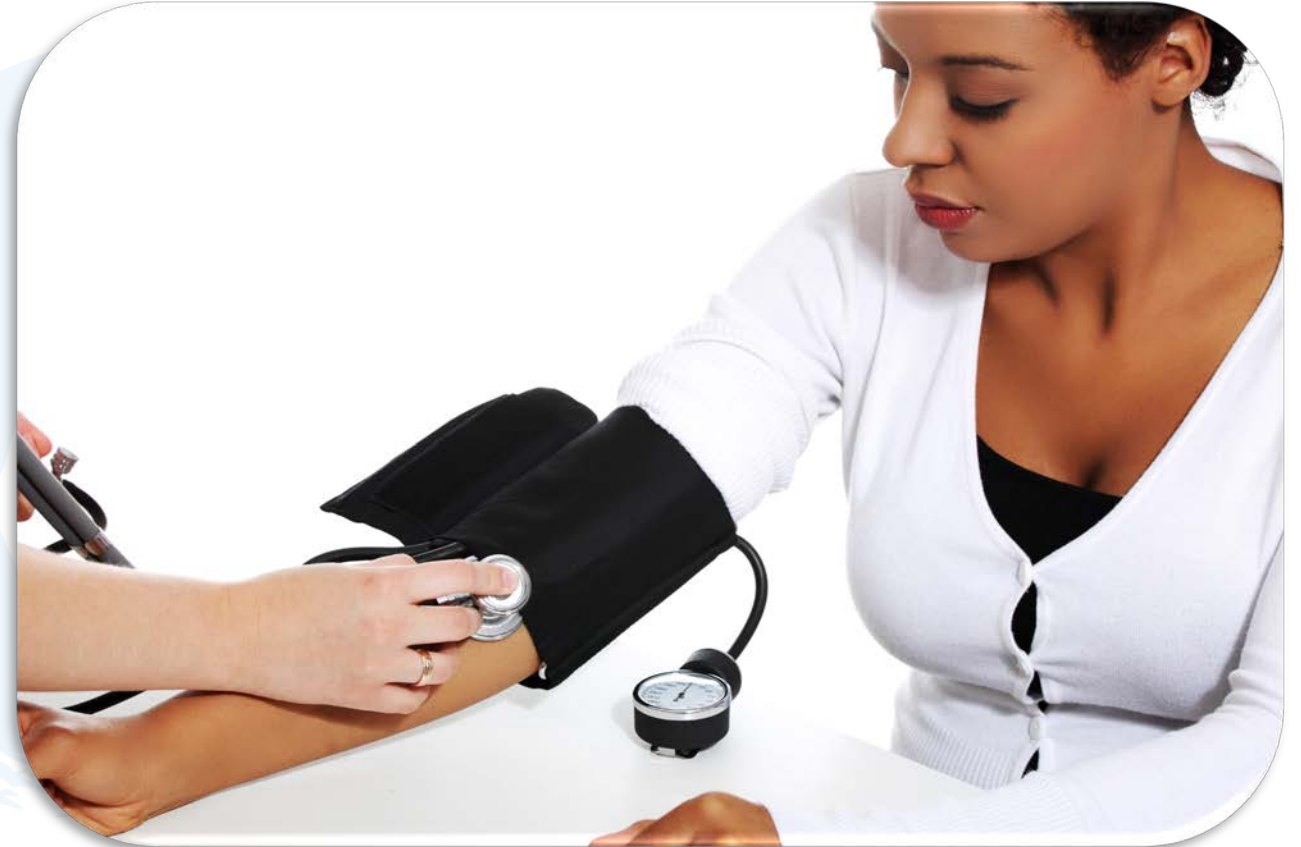


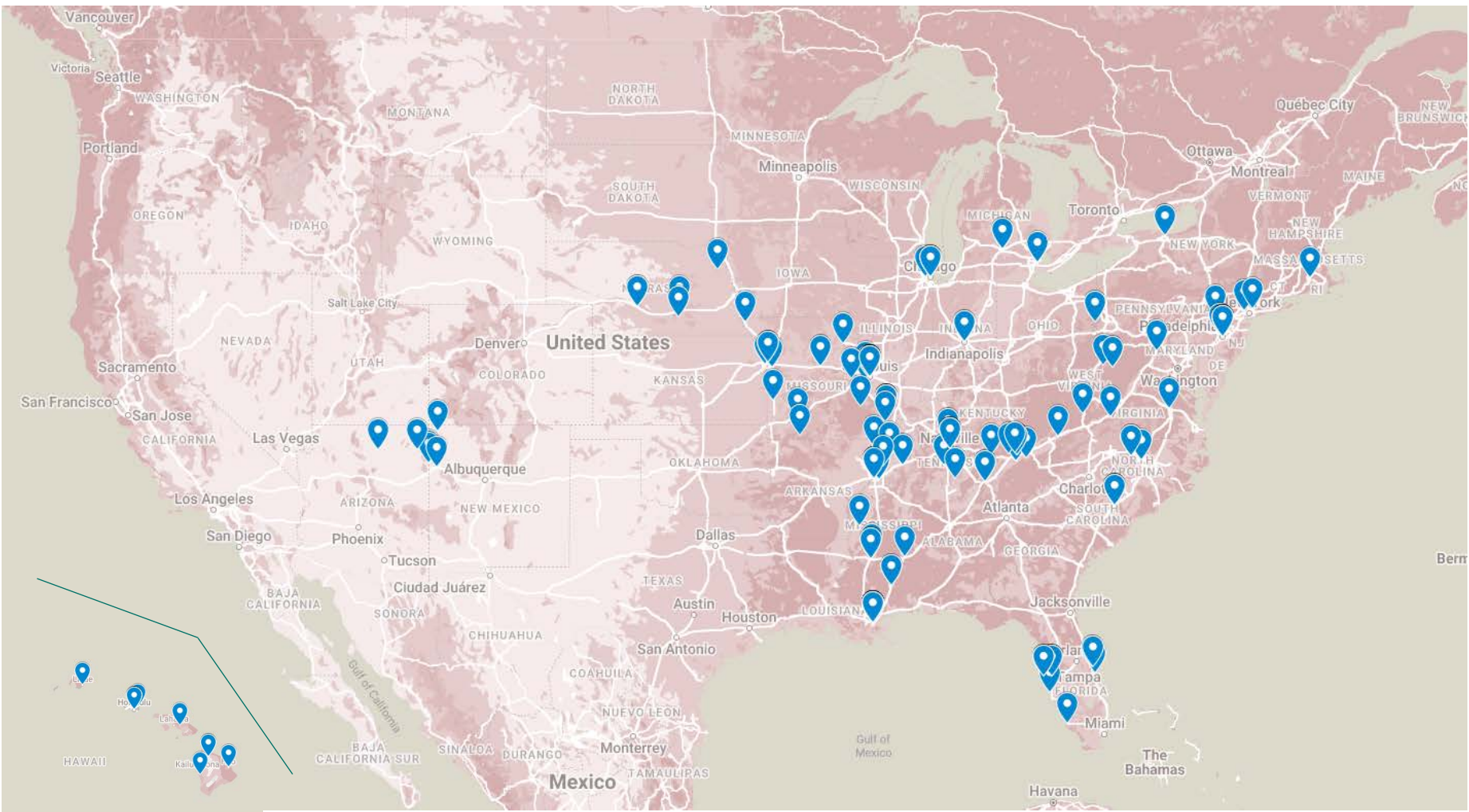
www.preeclampsia.org

www.preeclampsia.org/signs-and-symptoms

Hypertension is the leading measurable sign

- 160/110 is a hypertensive *emergency* in pregnancy and postpartum
- *Stroke* from acute BP is #1 reason women die, especially postpartum
- Magnesium sulfate is *seizure* prophylaxis, not an antihypertensive
- “*Treat the damn pressures*”
– Dr. Elliott Main, CMQCC
- CHAP trial demonstrates need to control BP to lower levels to prevent preeclampsia





Distribution to Highest Risk Patients:

- ✓ Chronic HTN
- ✓ Previous history of PE
- ✓ Obesity (BMI 30+)
- ✓ Age (35+)
- ✓ Autoimmune disorders
- ✓ Black/African-American
- ✓ Native American/Alaska Native
- ✓ Rural

15,676



183



21

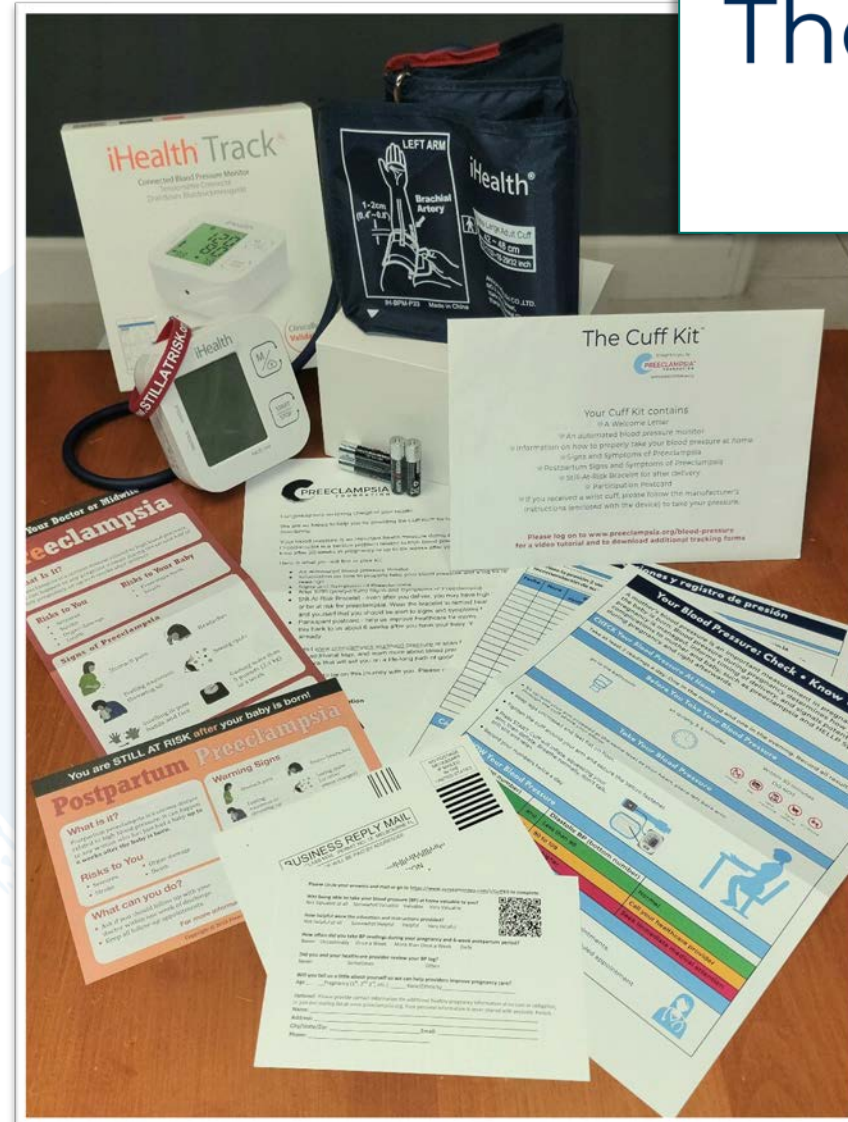


Total cuffs shipped: **15,676**
 Providers distributed to: **183**
 States distributed to: **21**

Data collected thru August 2022

Contents

- BP Monitor & Batteries (Bluetooth)
- Instructions including link to online video and website
- Tracking Log
- Signs and symptoms education
- Postpartum preeclampsia information
- “Still at Risk” rubber bracelet
- Patient feedback postcard



The Cuff Kit

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PREECLAMPSIA[™]
FOUNDATION
www.preeclampsia.org



www.preeclampsia.org/the-cuff-project



Congratulations on taking charge of your health!

We are so happy to help you by providing the Cuff Kit™ for home blood pressure monitoring.

Your blood pressure is an important health measure during and after pregnancy. Preeclampsia is a serious problem related to high blood pressure that can occur any time after 20 weeks in pregnancy or up to six weeks after you deliver.

Here is what you will find in your kit:

- An automated blood pressure monitor
- Information on how to properly take your blood pressure and a log for recording readings
- Signs and Symptoms of Preeclampsia
- After birth (postpartum) Signs and Symptoms of Preeclampsia
- Still-At-Risk Bracelet - even after you deliver, you may have high blood pressure or be at risk for preeclampsia. Wear the bracelet to remind healthcare providers and yourself that you should be alert to signs and symptoms for 6 weeks.
- Participant postcard - help us improve healthcare for moms like you by mailing this back to us about 6 weeks after you have your baby. We paid the postage already.

Please visit www.preeclampsia.org/blood-pressure or scan for a video tutorial, to download additional logs, and learn more about blood pressure and pregnancy. You are starting habits that will set you on a life-long path of good health practices.

We are happy to be on this journey with you. Please consider us a resource now and for your future.

Preeclampsia Foundation
www.preeclampsia.org
info@preeclampsia.org
 (800) 665-9341



Cuff Kit Contents

Your Blood Pressure: Check • Know • Share

A mother's blood pressure is an important measurement in pregnancy and after the baby is born. Blood pressure during pregnancy determines how your pregnancy is managed, informs timing of delivery, and signals potential risks and complications to mother and baby, such as preeclampsia and HELLP Syndrome, during pregnancy and right afterwards.

CHECK Your Blood Pressure At Home

Take at least 2 readings a day: One in the morning and one in the evening. Record all results.

go to the **Instructions and Log**

Blood Pressure Instructions and Log

Your Name: _____

Take 2 readings a day: one in the morning and one in the evening, or as advised by your healthcare provider. Record all results below.

Date	Time	Blood Pressure (systolic/diastolic)	Heart Rate (beats)	Date	Time	Blood Pressure (systolic/diastolic)	Heart Rate (beats)

KNOW Your Blood Pressure

Systolic BP (top number)

- Less than 140
- 140 to 159
- 160 or higher

SHARE Your Blood Pressure

- Discuss your blood pressure with your healthcare provider.
- Ask upon yellow or orange background

How to Get Help (record local contact information here)

Blank forms, an instructional video, and additional resources are available at www.preeclampsia.org/blood-pressure.

HEALTH CARE DISCLAIMER: This program, related materials, and services do not constitute the practice of medical advice, diagnosis, or treatment. The quality of an at-home reading is dependent on both the method and equipment. Always talk to your health care provider for diagnosis and treatment, including your specific medical needs. If you have or suspect that you have a medical problem or condition, please contact a qualified healthcare professional immediately. If you are in the United States and experiencing a medical emergency, call 911 or call for emergency medical help immediately.

www.preeclampsia.org

Ask Your Doctor or Midwife

Preeclampsia

What is it?

Preeclampsia is a serious disease related to high blood pressure. It can happen to anyone during the second half of pregnancy or up to 6 weeks after delivery.

Risks to You

- Seizures
- Stroke
- Organ damage
- Death

Risks to Your Baby

- Premature birth
- Low birth weight
- Death

Signs of Preeclampsia

- Swelling
- Feeling unwell or dizzy
- Feeling sick to your stomach
- Seeing spots or floaters in your vision
- Headaches
- Feeling dizzy or lightheaded
- Shortness of breath

You are STILL AT RISK after your baby is born!

Postpartum Preeclampsia

What is it?

Postpartum preeclampsia is a serious disease related to high blood pressure. It can happen to anyone who has just had a baby up to 6 weeks after the baby is born.

Warning Signs

- Swelling
- Feeling unwell or dizzy
- Feeling sick to your stomach
- Seeing spots or floaters in your vision
- Headaches
- Feeling dizzy or lightheaded
- Shortness of breath

Risks to You

- Seizures
- Stroke
- Death

Risks to Your Baby

- Premature birth
- Low birth weight
- Death

What can you do?

- Ask if you should follow up with your doctor within one week of discharge.
- Keep all follow-up appointments.
- Trust your instincts.
- Check for warning signs. If you notice any, call your doctor. If you can't reach your doctor, call 911 or go directly to an emergency room and report your postpartum symptoms.

For more information, go to www.stillatrisk.org

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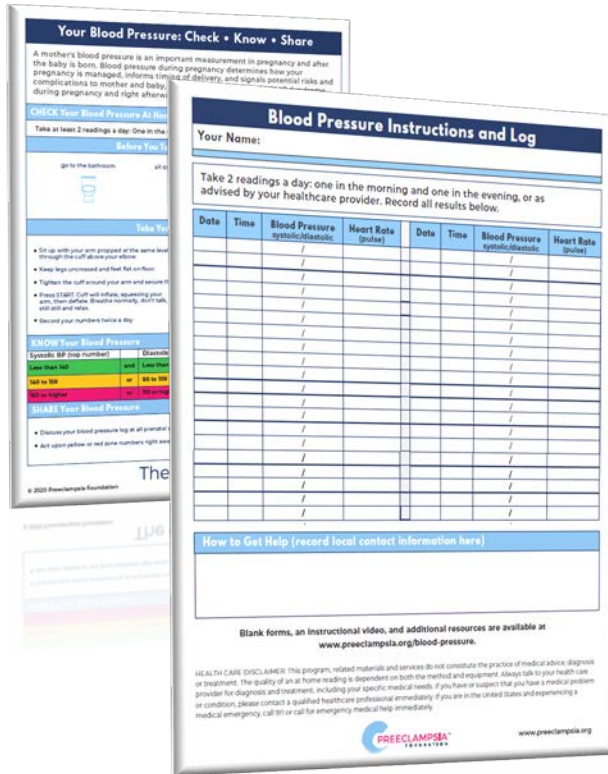


Business Reply Mail envelope with postage-paid label, return address, and QR code.



Path to BP Reporting Integration

Paper Logs



Bluetooth Applications



EMR Integration (Epic) *Coming Soon



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MHA and Missouri Maternal-Child Learning and Action Network Cuff Kits Program Overview

Grant Information

- COVID-19 Statewide Health Disparities Initiative through Missouri Department of Health and Senior Services
- Purpose: "COVID-19 has disproportionately affected populations placed at higher risk and who are medically underserved, including racial and ethnic minority groups, and people living in rural communities who are at higher risk of exposure, infection, hospitalization, and mortality."
- Contract Period: July 13, 2022-May 31, 2023

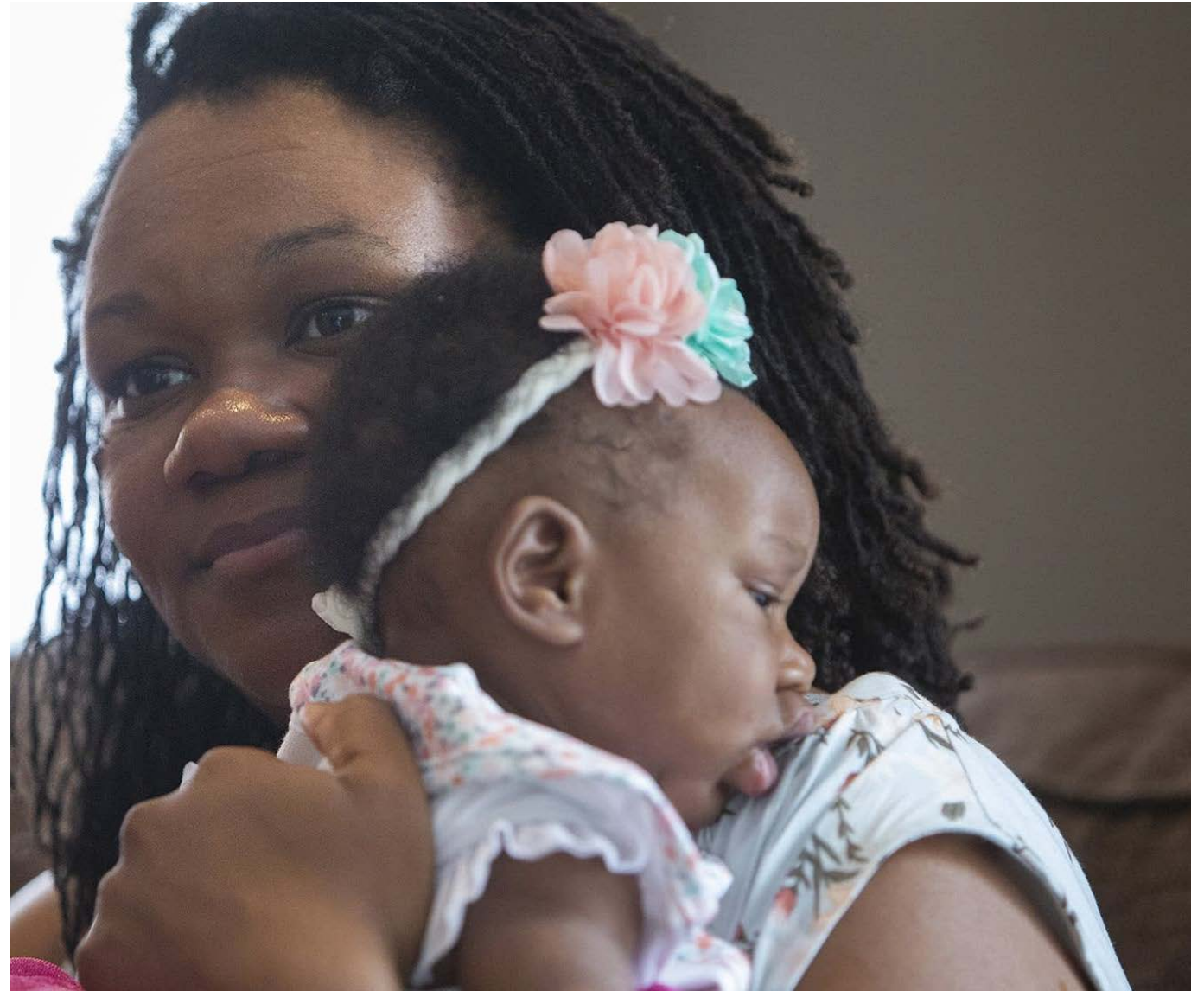
MHA/MC LAN Project Goals

- Empower patients to recognize and report symptoms *and* signs
- Educate patients and families on accurate blood pressure (BP) measurement
- Support reduction of noted disparities and COVID-19 effects
- Support outpatient monitoring and management of BP
- Collect data to demonstrate efficacy and return on investment
 - Diagnosis and management processes
 - Prenatal and postpartum care
 - Payor coverage

Our research team includes leading experts from Harvard and University of Chicago

Address Racial Disparity

- Black women are 3 to 4 times as likely to die from preeclampsia with increased rates of:
 - Stroke
 - Renal failure
 - Pulmonary edema
 - Heart failure
- Disproportionately experience higher rates of hypertension, preeclampsia, stroke and other chronic conditions (OMH, 2017).
- Leading causes of death include cardiomyopathy, preeclampsia and eclampsia.
- Display signs of preeclampsia earlier in pregnancy than white women and retain hypertension for longer postpartum.
- Significantly more likely to have an severe maternal mortality (SMM) event at the time of delivery.
- Significant disproportionate social determinants of health (SDOH) complications (Melillo, 2020).



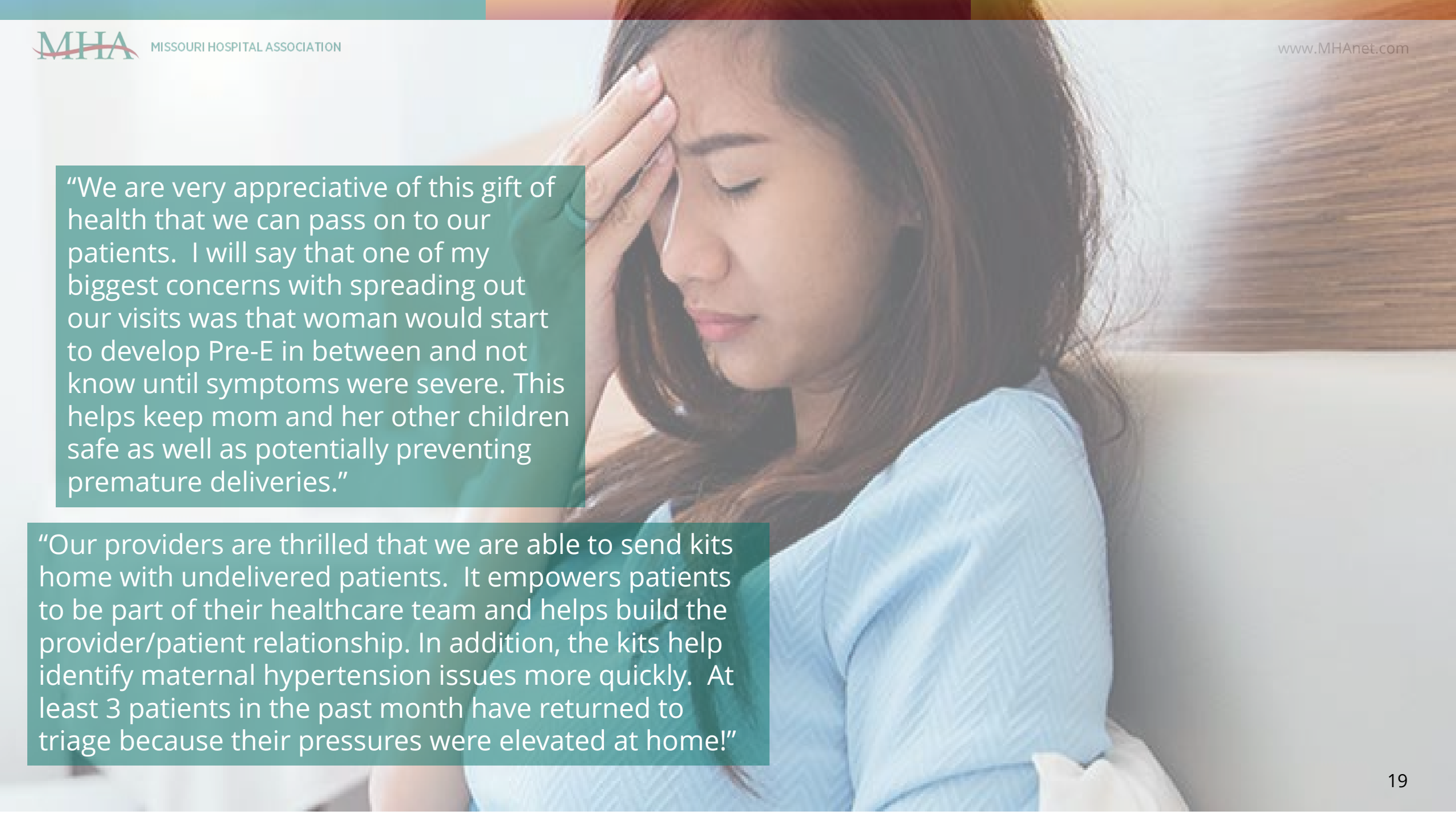
Address Pandemic Effects

- COVID-19 increases risk of preeclampsia and vice versa
- Further SDOH complications
 - Transportation
 - Isolation and fear
 - Loss of income
- Provider Care Changes
 - Prenatal and postpartum telehealth



Benefits of Participation

- **Complimentary** validated-in-pregnancy BP devices with Bluetooth technology, patient education material, and participation in important research study
- Provide data for **important unanswered questions**
 - User experience with self-monitored blood pressure (SMBP) (patients and providers)
 - SMBP effect on patient care and BP management
 - SMBP effect on pregnancy and postpartum outcomes
 - SMBP effect on health disparities, and more
- Build your case for **additional funding**
- Help build the case for **payor coverage** and institutional changes around SMBP
- **Compare your results** across the state and across the country



“We are very appreciative of this gift of health that we can pass on to our patients. I will say that one of my biggest concerns with spreading out our visits was that woman would start to develop Pre-E in between and not know until symptoms were severe. This helps keep mom and her other children safe as well as potentially preventing premature deliveries.”

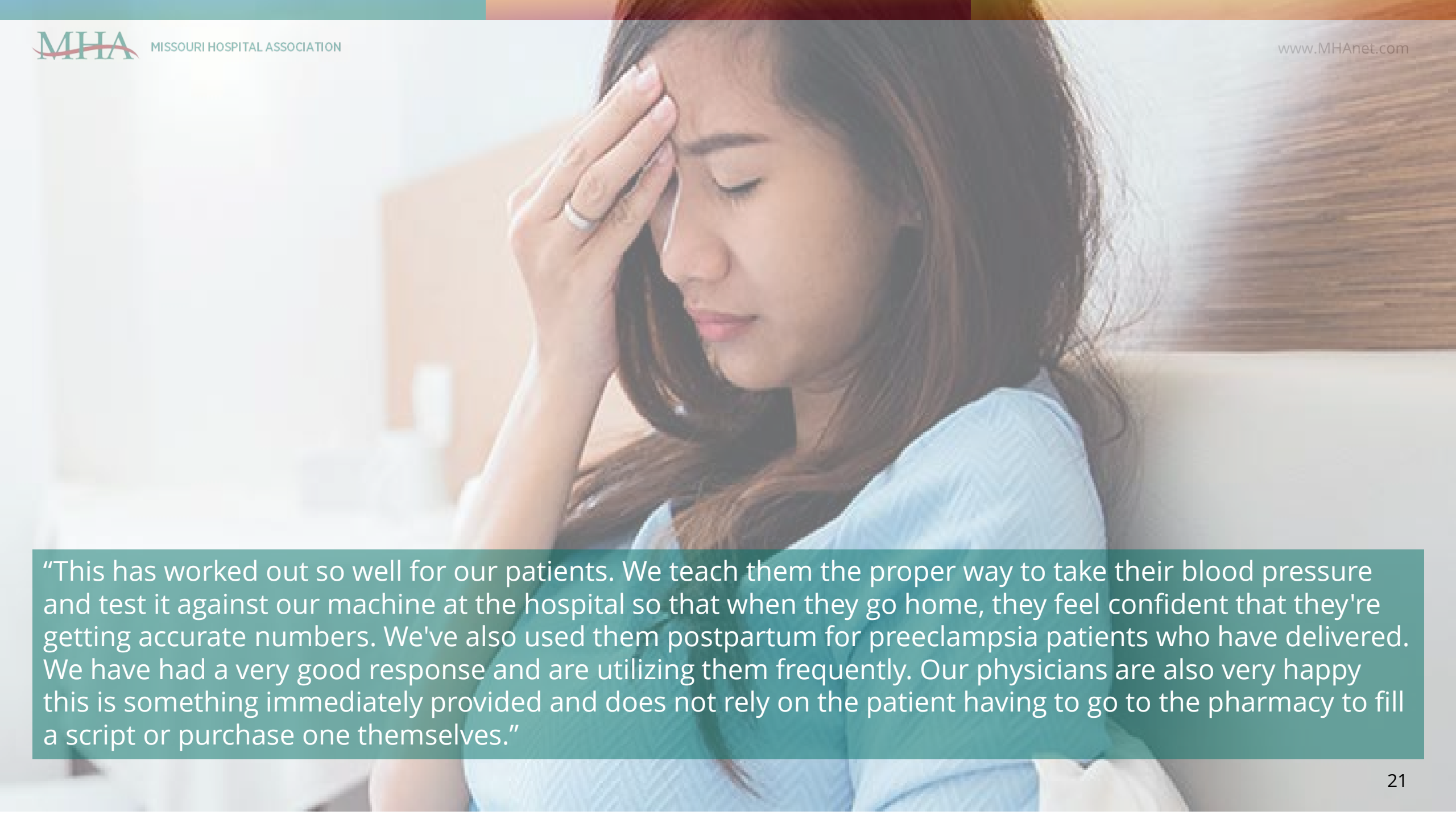
“Our providers are thrilled that we are able to send kits home with undelivered patients. It empowers patients to be part of their healthcare team and helps build the provider/patient relationship. In addition, the kits help identify maternal hypertension issues more quickly. At least 3 patients in the past month have returned to triage because their pressures were elevated at home!”

Mother did not have BP issues during pregnancy or in the hospital, but once home with the baby – within two weeks – began feeling “strange and weak.” She used her Cuff Kit and found her BP to be very high.

She knew this was dangerous, so she took the baby and two young children to her mother’s before driving herself to the hospital. Upon arriving at the hospital ER, she had a seizure and was admitted with postpartum eclampsia.

“Without my blood pressure cuff I would not have known how ill I was. I would have seized at home alone with my children and possibly would have died.”





“This has worked out so well for our patients. We teach them the proper way to take their blood pressure and test it against our machine at the hospital so that when they go home, they feel confident that they're getting accurate numbers. We've also used them postpartum for preeclampsia patients who have delivered. We have had a very good response and are utilizing them frequently. Our physicians are also very happy this is something immediately provided and does not rely on the patient having to go to the pharmacy to fill a script or purchase one themselves.”

Criteria for MHA Cuff Kit Program Participation

- ✓ **Prioritize distribution** to high-risk and vulnerable patients
 - Chronic hypertension
 - History of preeclampsia and/or eclampsia
 - Obesity
 - Advanced maternal age
 - Autoimmune disorders and other medical diagnoses
 - Black, Native American
 - Rural location
 - Patients adversely impacted by SDOH
- ✓ **Actively educate patients** on correct usage of BP cuffs, measurement tracking and postcard reporting
- ✓ **Use ICD codes for SMBP:**
 - ICD Code 99473: Patient education and training and device calibration
 - ICD Code 99474: For reviewing blood pressure readings collected by the patient
- ✓ **Use telehealth capabilities** to increase timely monitoring and response (text messages, phone calls and video chats)
- ✓ **Identify** Project Lead and Data Lead
- ✓ **Complete required data reporting** to support project evaluation

Commit to Patient Education Process

- Review all materials
- Ensure accurate cuff size
- Demonstrate cuff usage on patient's arm
- Have patient demonstrate correct usage
- Review BP tracking options: paper log*, download iHealth app**
- Encourage patient postcard responses (mail or QR link)

* Take/send a picture of your log; bring paper copy with you to appointment

** Show results; email or text results

MHA Data Requirements

- Track Inventory and Distribution per Facility
 - How many Cuff Kits have been given to patients?
 - To whom (facility level tracking only)?
 - How many Cuff Kits are left in stock?
- Track Utilization Per Patient
 - Patient and provider utilization for patients who *delivered* up to 6 weeks postpartum (*no* protected health information) during that reporting period (dropdowns, radio buttons, check boxes; total of 16 questions)
 - Reminders will be sent on the 20th day of the month; reports due by 5th business day of the following month
 - Tracking tool will be made available (Excel spreadsheet)
 - Reporting will occur via online survey tool

Distribution Survey Questions

- You will include your National Provider Identifier (NPI) with each data report.
- Project data set has been Institutional Review Board approved.

How many Cuff Kits did you distribute during this reporting period?

How many Cuff Kits do you have left in stock?

What challenges, if any, you have had implementing this program or any other feedback?

How many patients delivered during this reporting period?

Individual Patient Data Reported

- **Demographics**

- Age
- Race and Ethnicity

- **Risk Assessment**

- Which risk factors?
- SDOH factors?

- **Pregnancy**

- Date of delivery
- BP at delivery
- Pregnancy outcome
- Readmission due to BP
- Aspirin use
- Antihypertensives use

- **Cuff Kit utilization**

- Date of Cuff Kit delivery to patient
- Gestational age at Cuff Kit delivery
- How BP values shared
- Provider use of BP data from Cuff Kit
- Provider management of BP from Cuff Kit
- Anecdotal stories or outcomes (optional)

Sign-Up Application Process

- An email with the application link will be sent the week of September 19 with a **submission deadline of October 25.**
- The information requested in the application will include, but is not limited to, the following:
 - Organization demographics
 - Site and Provider NPI numbers
 - Site main point of contact and data entry main point of contact
 - Number of Cuff Kits requested (standard and extra large) based upon the volume you project distributing within the next six months
 - Annual number of births under your care
 - Other
- Cuff Kit receipt will be determined by a lottery drawing.
- If facility does not receive kits through the lottery drawing, MHA will prioritize your facility for a future distribution cycle.

Next Steps

- Informational meeting recording, meeting handouts, application link and Frequently Asked Questions will be emailed the week of September 19.
- Start talking to your provider teams.
- Identify your six-month cuff kit volumes.
- Submit your application by October 25.
- The lottery drawing will be completed quickly, and all applicants will be notified .
- A follow-up project intensive meeting will be provided to further review logistics, data submissions and project support.

Questions?



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