Closing the Equity Gap in Maternal Care: UCM's STAMPP Program for Hypertensive Disorders of Pregnancy

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Session Agenda

1. Welcome & Speaker Intros
2. The Current State of Health Equity & Disparities in Maternal Care
3. An Overview of UChicago Medicine's STAMPP HTN Program
4. Leveraging RPM to Advance Health Equity
5. Open Q&A

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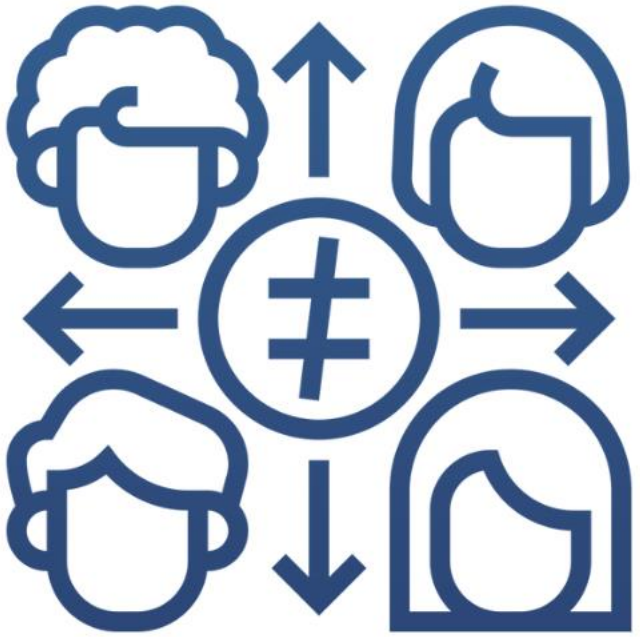
Contributors to Racial Disparity in HDPs

Multifactorial nature of disparities in hypertensive disorders of pregnancy (HDPs):

- ✓ Less access to quality care
- ✓ Increased health risk factors (e.g., obesity)
- ✓ Social issues (e.g., housing insecurity)
- ✓ Healthcare system/provider implicit bias
- ✓ Lack of education/awareness for healthcare providers
- ✓ Patient unheard and follow-up care plans lacking or ineffective



References: Rana S et al. Racial Disparities in diagnosis, management and outcomes in preeclampsia. Curr Hypertens Rep.2022 Mar 7.

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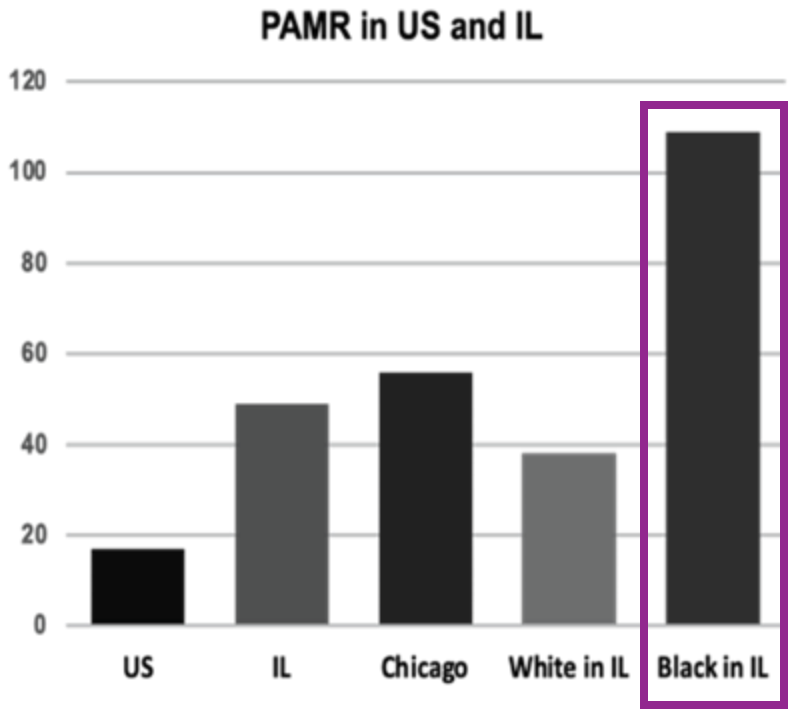
Pregnancy-Related Maternal Mortality

The Pregnancy-related maternal mortality ratio (PAMR; the number of deaths that occurred for every 100,000 live births) is higher in Illinois compared to the US and is even higher among African American women in Illinois (IL).



Source: CDC 2019

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Challenges at the Hospital Level

- **At the time of admission and discharge**
  - General lack of knowledge among patients about the long-term effects of preeclampsia
  - No organized effort to educate patients
  - Discharge instructions are not universally given
  - No dedicated postpartum clinic for easy access to care

- **Problems with readmissions in ED**
  - Identifying postpartum patients
  - Poor knowledge about the definition of PPHTN
  - Calling medicine or cardiology instead of OB
  - Delayed transfer to L/D
  - Delay in recognition and treatment of severe PPHTN

- **No standardized management for readmissions for PPHTN**

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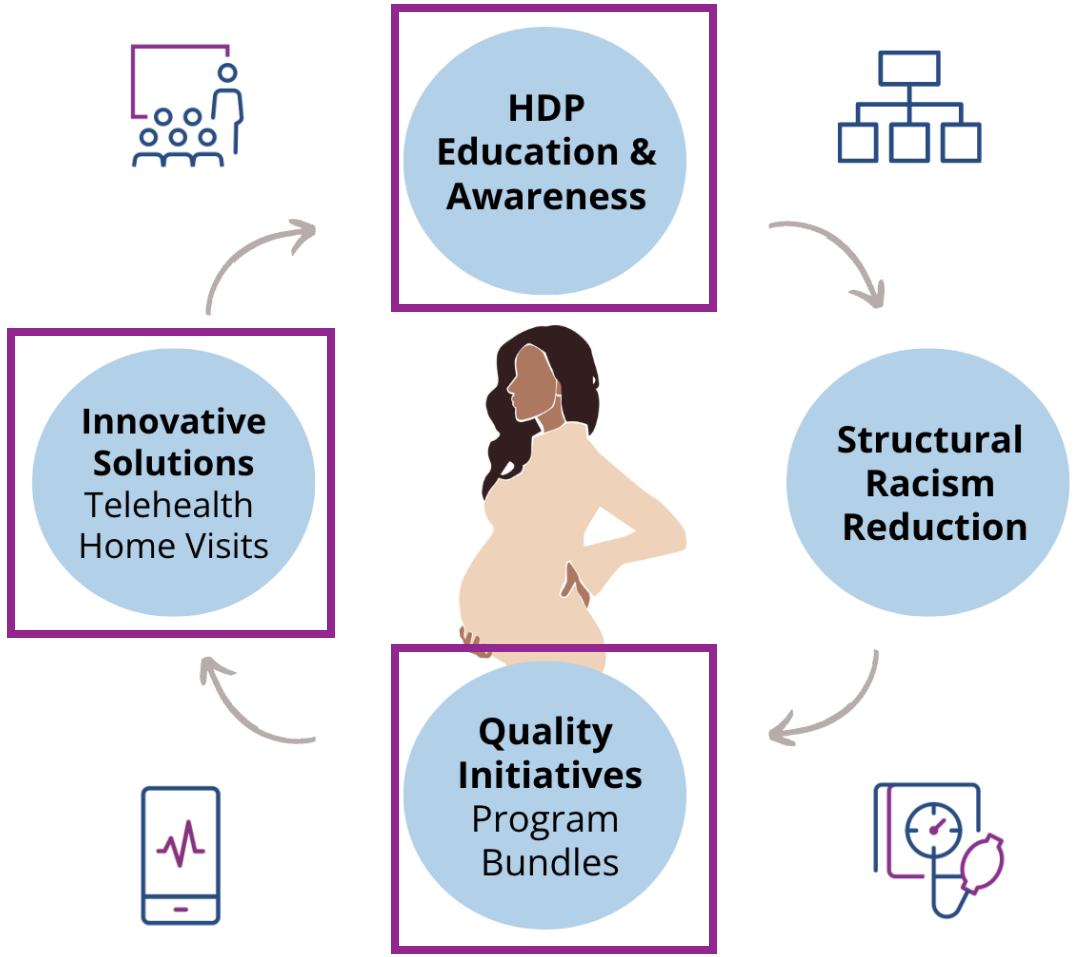
Approaches to Racial Disparity Reduction in Preeclampsia



References: Rana S et al. Racial Disparities in diagnosis, management and outcomes in preeclampsia. Curr Hypertens Rep.2022 Mar 7.

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UChicago Medicine: STAMPP Program for Hypertensive Disorders of Pregnancy

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University of Chicago Medicine

- **Headquarters:** Chicago, IL
- **Facilities:** Four acute care hospitals, including Corner Children's Hospital, Level 1 Adult and Peds Trauma, 48 ORs across 5 locations, 50+ physician Offices, Urgent Care Centers, and Family Clinics, 33 Ambulatory Surgery Centers, 8 Cardiac Centers, 9 Cancer Centers, 4 Acute Rehabilitation Centers, 6 Mental health and Addiction Centers, 5 Trauma Centers
- **Licensed Beds:** 1,296
- **Staffed Beds:** 1,004
- **Inpatient Admissions:** 45,746
- **Outpatient Encounters:** 1,220,908
- **ER Visits:** 191,391
- **Babies Delivered:** 3,097

AT THE FOREFRONT
UChicago Medicine

STAMPP HTN Program Goals

- Commitment to quality improvement
- Improve knowledge among providers and patients
- Appropriate and timely management of HTN
- Improve rates of PP follow up
- Reduced rates HTN related complications
- Appropriate management of readmissions for HTN
- Improve long term BP control
- Follow up with cardiology

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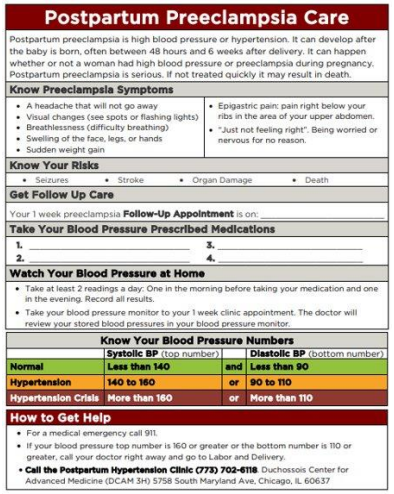
Clinician Buy-In and Procedures

- ✓ **FBC Video – Care network**
- ✓ **Nursing – FBC**
  - ✓ Tear pad
  - ✓ Written instructions
  - ✓ Bracelets
  - ✓ BP cuff and monitors
  - ✓ Preeclampsia discharge checklist
  - ✓ Annual competence
- ✓ **Standardize Program Protocols**
  - ✓ Management of PPHTN
  - ✓ Readmissions
  - ✓ ED workflow
  - ✓ PPHTN clinics



Postpartum Preeclampsia Care

Postpartum preeclampsia is high blood pressure or hypertension. It can develop after the baby is born, often between 48 hours and 6 weeks after delivery. It can happen whether or not a woman had high blood pressure or preeclampsia during pregnancy. Postpartum preeclampsia is serious. If not treated quickly it may result in death.

Know Preeclampsia Symptoms

- A headache that will not go away
- Visual changes (see spots or flashing lights)
- Breathlessness (difficulty breathing)
- Swelling of the face, legs, or hands
- Sudden weight gain
- Epigastric pain; pain right below your ribs in the area of your upper abdomen.
- "Just not feeling right". Being worried or nervous for no reason.

Know Your Risks

- Seizures
- Stroke
- Organ Damage
- Death

Get Follow Up Care

Your 1 week preeclampsia **Follow-Up Appointment** is on: _____

Take Your Blood Pressure Prescribed Medications

1. _____ 3. _____
2. _____ 4. _____

Watch Your Blood Pressure at Home

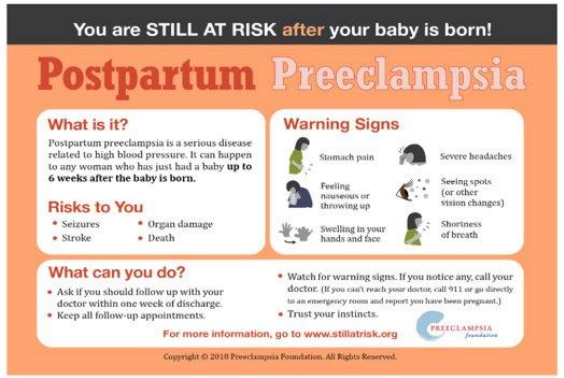
- Take at least 2 readings a day. One in the morning before taking your medication and one in the evening. Record all results.
- Take your blood pressure monitor to your 1 week clinic appointment. The doctor will review your stored blood pressures in your blood pressure monitor.

Know Your Blood Pressure Numbers

	Systolic BP (top number)		Diastolic BP (bottom number)
Normal	Less than 140	and	Less than 90
Hypertension	140 to 160	or	90 to 110
Hypertension Crisis	More than 160	or	More than 110

How to Get Help

- For a medical emergency call 911.
- If your blood pressure top number is 160 or greater or the bottom number is 110 or greater, call your doctor right away and go to Labor and Delivery.
- **Call the Postpartum Hypertension Clinic (773) 702-6118** Duchossois Center for Advanced Medicine (DCAM 3H) 5758 South Maryland Ave, Chicago, IL 60637



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STAMPP-HTN PATIENT JOURNEY

1

Delivery

- Postpartum HTN management
- Hypertension management education (video instruction)

2

Discharge

- Inpatient Hypertension management protocols
- Dedicated nurse education
- Written instructions provided (including warning signs)
- Written log provided
- BP monitor provided
- Alert wrist band provided
- Schedule follow-up visit

3

Postpartum hypertension clinic visit

- 7-10 days after discharge
- F/U in Dedicated postpartum hypertension clinic
- Hypertension management education
- Long term CV risks associated with preeclampsia education
- Outpatient Hypertension management protocols

4

Severe hypertension

- Emergency department protocol to triage patient to correct location

5

Readmission

- Readmission guidelines for postpartum hypertensive disorder management
- All admission guided to Labor and delivery

6

Continued postpartum clinic visits

- 6 weeks postpartum
- Hypertension management education
- Follow up with cardiology or PCP

Patient Education At Every Stage

STAMPP-HTN Patient Demographics

	Entire Cohort N = 926
Maternal Age, years	28 (24, 33)
Nulliparous	485 (52.38)
BMI	33.8 (27.5, 41.02)
Medicaid Insurance	609 (65.77)
Race	
Black/African American	740 (79.91)
White	121 (13.07)
Gestational Age, weeks	38.43 (37.00, 39.43)
Diagnosis	
Preeclampsia	367 (39.89)
Gestational Hypertension	338 (36.74)
Superimposed Preeclampsia	101 (10.98)
Chronic Hypertension	114 (12.39)
Mode of Delivery	
Cesarean	314 (33.91)
Vaginal	574 (61.99)
Total Length of Stay (Days)	4 (3, 4)

Data is presented as n (%) or median (quartile 1, quartile 3) depending on variable type.

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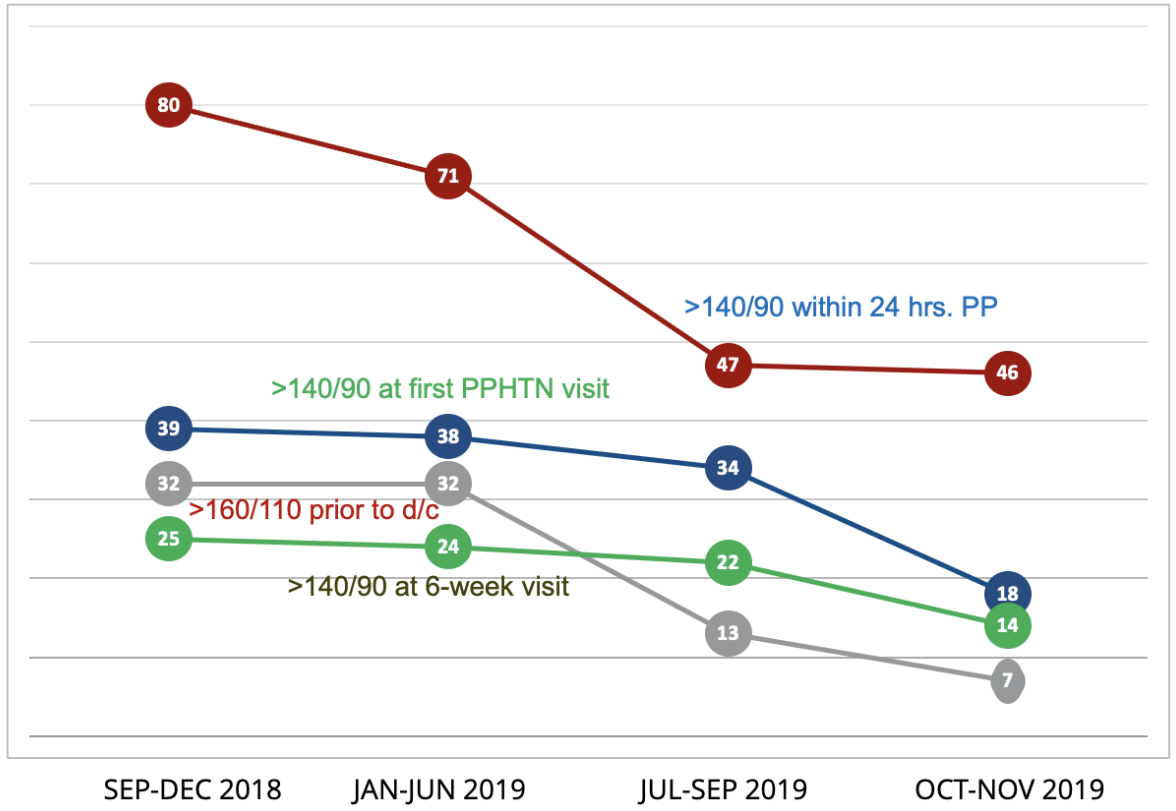
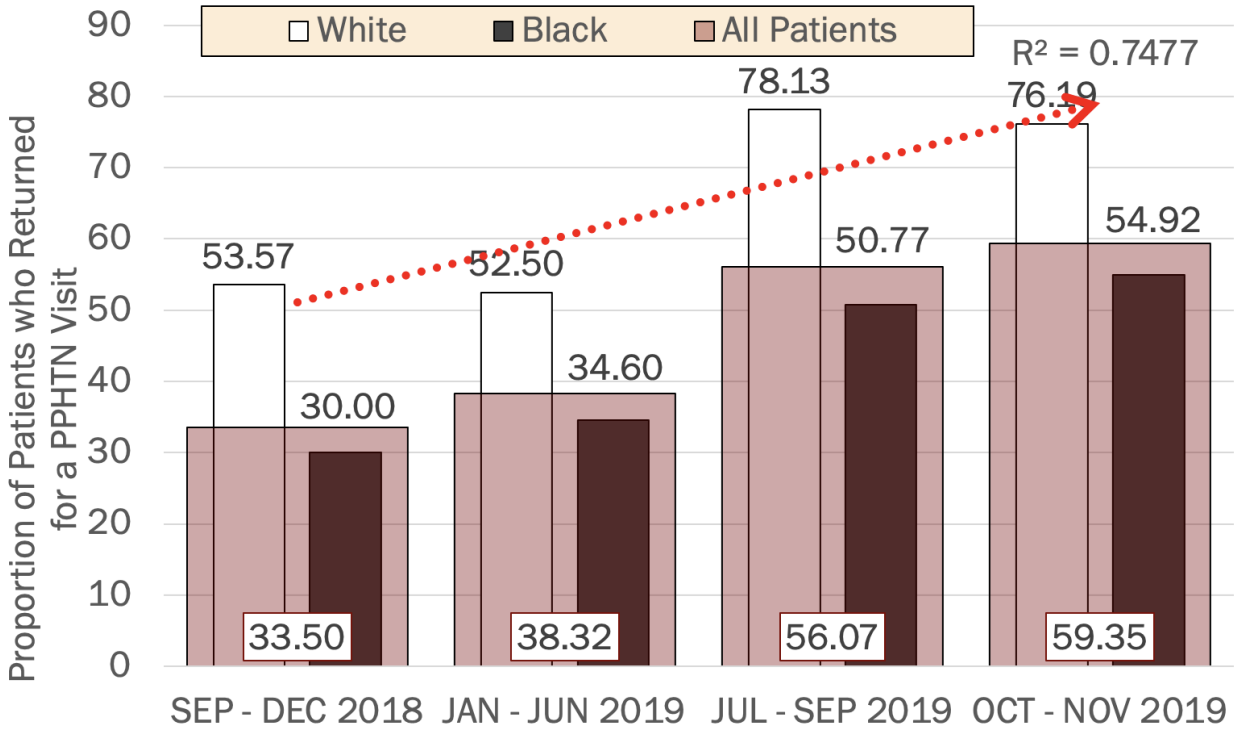
STAMPP–HTN Program Results

STAMPP HTN bundle led to a significant <u>reduction</u> of PP BP's and <u>improved</u> PP follow-up

Decreases in Postpartum Blood Pressure



Increases in PPHTN Follow-Up Visits



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Leveraging RPM to Advance Maternal Health Equity

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RPM Program Overview

- ✓ The patient gets a Bluetooth BP monitor and downloads an APP on her phone to be enrolled in the program
- ✓ Linked through EPIC
- ✓ The rest of the components of the STAMPP program have no change
- ✓ Every patient discharged from UCM with HDP is enrolled in this program
- ✓ **Started enrolling in RPM:** July 26th, 2021

The RPM workflow overlays the existing STAMPP-HTN workflow

Patient takes vital measurements and surveys at home

Information gets sent to EPIC and is monitored by telehealth nurses

Nurses escalate to UCM provider when necessary per protocols

UCM provider contacts and treats patient

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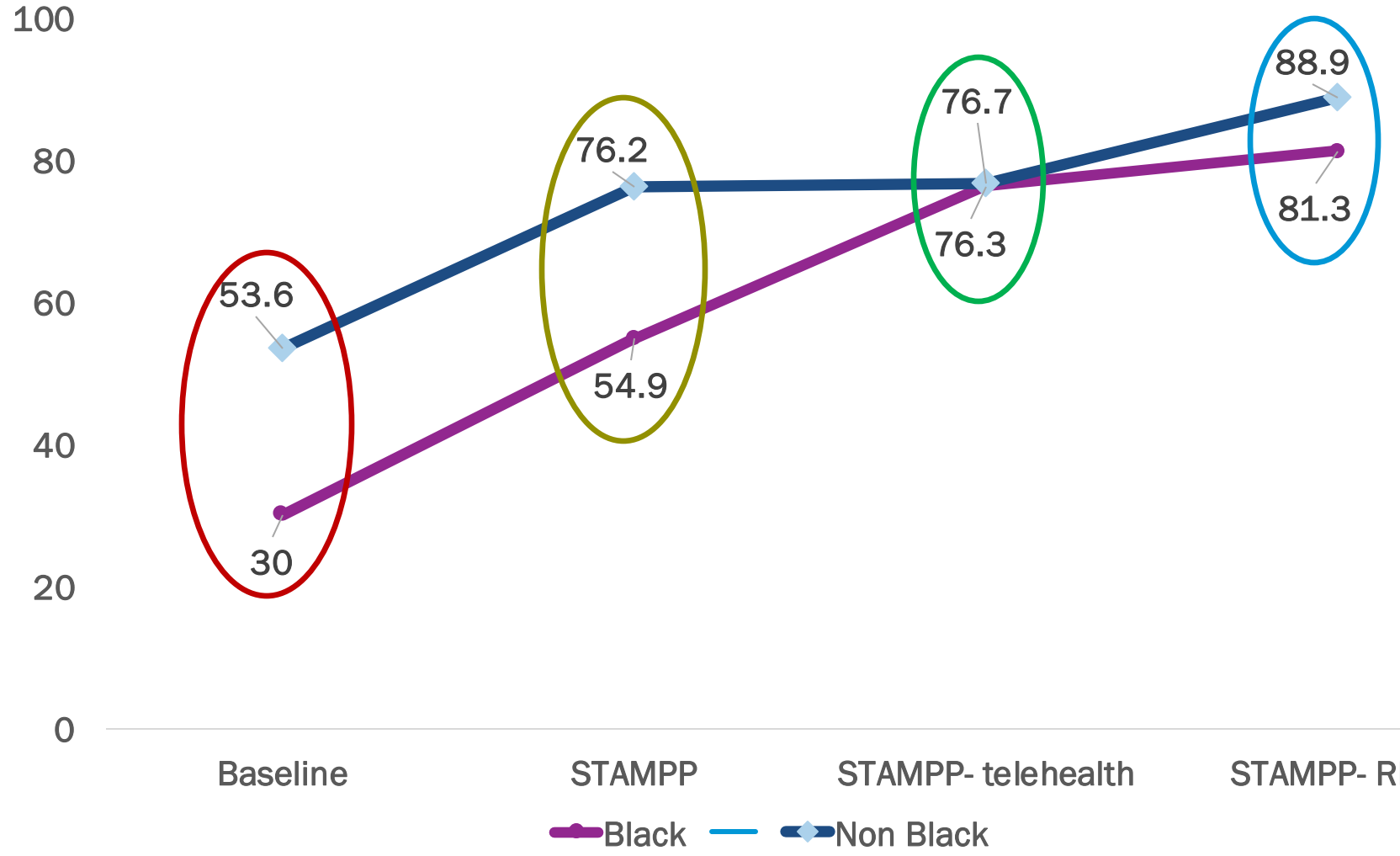
Rates of PPHTN Follow-Up



The STAMPP RPM program led to an overall improvement in rates of postpartum BP follow from 30% to 81.3% among black women and eliminated the disparity.

Baseline: September-December 2018
STAMPP: October-November 2019
STAMPP Telehealth: March-June 2020
STAMPP RPM: October 2021-April 2022

Patient Perceptions Regarding RPM

86%	Patients reported that they were “definitely able” or “somewhat able” to improve their blood pressure management with RPM
91%	Patients reported they were “very” or “somewhat” likely to attend their postpartum follow-up visit
84%	Patients reported that were “definitely” or “somewhat” likely to recommend the RPM program to other postpartum mothers with hypertensive disorders
91%	Patients reported they were “much more” or “somewhat more” aware of their own health after use of the RPM program at six weeks postpartum

Survey responses collected from RPM portal for 306 patients into the RPM program and consented for the study from October 2021 to April 2022

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Funding Through the Years

- ✓ Department of Obstetrics and Gynecology at the University of Chicago
- ✓ University of Chicago Women's Board
- ✓ Chicago Lying-in Board of Directors at the University of Chicago
- ✓ Preeclampsia Foundation
- ✓ Hypertension Innovator Award Competition by the U.S. Department of Health and Human Services ("HHS"), Office on Women's Health (2021, 2022)

Currently funded through the UCM health equity initiatives through IT Strategic Programs

It is cost-free to the patient and is the standard of care for our institution.

- On average, we enroll 70-90 patients per month
- Total patients enrolled in STAMPP-HTN program ~ 5000

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Award and Accolades

- ✓ Received **ILPQC award of Excellence** (2019)
- ✓ The STAMPP-HTN Program was selected for **phase I and II of the Hypertension Innovator Award** Competition by the U.S. Department of Health and Human Services ("HHS"), Office on Women's Health (2021, 2022)
- ✓ The program was selected for "**Magnet story as Magnet Exemplar**" for American Nurses Credentialing Center (ANCC) for 2022
- ✓ Dr. Rana received the **Distinguished Leader in Program Innovation**, University of Chicago Biological Sciences Division (2022)
- ✓ **American Hospital Association** "citation of merit" and equitable maternal health practices- Review case example.
- ✓ **ILPQC 2023-** Abstract of Excellence Award, Implementation Plan Excellence Award, Data Excellence Award
- ✓ Dr. Rana has given several webinars and invited talks
- ✓ Resulted in 20 abstracts and 5 papers (others pending)

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The Future Vision for STAMPP-RPM

- ✓ Invited to Phase III of the HHS Hypertension Innovator award
- ✓ Incorporating CHWs (Linc program) to improve adherence beyond PPHTN appointment
- ✓ Extending STAMPP
  - ✓ During pregnancy for high-risk pregnant women
  - ✓ Beyond six weeks by collaborating with primary care RPM
- ✓ Conducting behavioral interviews with patients and CHWs
- ✓ Plan for extending to other hospitals across IL (collaborate with ILPQC for Birth Equity initiative)
- ✓ Continue to expand to other healthcare systems nationally
- ✓ Include in good clinical practice through CDC and ACOG

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RPM Expansion in Collaboration with HRS

- ✓ **University of Mississippi** - STAMPP (started Dec 2020)
- ✓ **RWJ Barnabas – New Jersey** - the program is live and expanding to more practices
- ✓ **Novant – North Carolina -** the program is live and expanding to more practices in Charlotte
- ✓ **Avera – North and South Dakota** - just went live and is enrolling patients at 2 practices
- ✓ **Catholic Health – Upstate NY** - live with PP HYT and Gestational Diabetes
- ✓ **University of Michigan Health West** – going live soon
- ✓ **Centura Health – Colorado** – initial discussion

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CMS Framework for Health Equity

CMS defines **health equity** as: the attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other circumstances.

CMS Released an Updated Framework for Health Equity (2022-2032)

- An integrated, action-oriented approach to advance health equity among communities who have been historically underserved or disadvantaged
- Update to the 2015 Medicare-focused CMS Equity Plan for Improving Quality in Medicare

Five Priority Areas:

1. **Expand the Collection, Reporting, and Analysis of Standardized Data**
2. Assess Causes of Disparities Within CMS Programs and **Address Inequities in Policies and Operations to Close Gaps**
3. **Build Capacity** of Healthcare Organizations and the Workforce **to Reduce Health and Healthcare Disparities**
4. **Advance Language Access, Health Literacy,** and the Provision of **Culturally Tailored Services**
5. **Increase All Forms of Accessibility** to Healthcare Services and Coverage

The latest CMS report, **The Path Forward: Improving Data to Advance Health Equity Solutions (PDF),** outlines the current state of health equity data collection, details progress to date in improving data collection, and defines future actions to continue to improve health equity data.

References: https://www.cms.gov/blog/establishing-framework-health-equity-cms; https://www.cms.gov/priorities/health-equity/minority-health/equity-programs/framework;

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Joint Commission Standards

Effective January 1, 2023, **new and revised requirements to reduce health care disparities** apply to organizations in the Joint Commission-accredited ambulatory health care, behavioral health care and human services, critical access hospital, and hospital programs.

6 Elements of Performance (EPs) for Healthcare Organizations:

1. **Designate an individual(s) to lead activities** to reduce health care disparities
2. **Assess the patient's health-related social needs** and provide information about community resources and support services
3. **Identify health care disparities** in the patient population by stratifying quality and safety data using sociodemographic characteristics
4. **Develop a written action plan** that describes how to address at least one of the health care disparities identified in the patient population
5. **Take action** when the goal(s) in the action plan are not achieved or sustained
6. At least annually, inform key stakeholders (leaders, licensed practitioners, and staff) about progress to reduce identified health care disparities

References: https://www.jointcommission.org/-/media/tjc/documents/standards/r3-reports/r3_disparities_july2022-6-20-2022.pdf

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How RPM addresses SDOH barriers to enable advances in Health Equity

Remote Patient Monitoring (RPM) reduces or eliminates barriers and improves access to care by equipping patients with technology and training to track their health status and easily share data with healthcare providers. RPM facilitates two-way communication for patients and providers to support ongoing care, enabling patients to receive the right care at the right time.

- **Address Transportation Barriers-** Ability to conduct virtual visits, capture biometrics and transmit patient's clinical data via Bluetooth or Cellular connection creates opportunities to supplement in-person doctor visits and reduce transportation dependencies.
- **Improve Clinical-Outcomes-** Collection of physiologic and non-physiologic data in between office visits gives visibility and ability to adjust medication or intervene timely to improve clinical outcomes.
- **Enable Health & Digital Literacy**- All condition-specific patient educational content within the HRS tablet is created at the 2nd Grade Level with a focus on simplified medical jargon.
- **Overcome Language Barriers**- Support for multiple languages on the HRS tablet interface overcomes the language barrier that impacts patients with Limited English Proficiency (LEP) - HRS currently supports 16 languages
- **Enable RPM 'Techquity'**- HRS tablets do not depend on patients having their own Wi-Fi networks but rather come readily enabled with cellular Sim Cards used by First Responders in rural settings. This ensures that patients are not marginalized due to lack of connectivity.
- **Collecting SDOH Data –** Available Pre-Set to help you collect pertinent data

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HRS Services that Support Health Equity

Patient-centric solutions to meet the needs of every patient

PatientConnect RPM

- ✓ FirstNet First Responder Cellular Network Access
- ✓ Condition-Specific Videos, PDFs, Quizzes
- ✓ 2nd-Grade Reading Level
- ✓ 16 Languages Supported
- ✓ Out-of-the-Box Ready (no Wi-Fi or complicated set-up)
- ✓ Automatically-Transmitted Vitals (no hitting "send")
- ✓ 24/7 Technical Support

HRS Logistics

- ✓ Equipment delivery direct to patient home
- ✓ Remote patient onboarding
- ✓ Remote patient offboarding and returns coordination
- ✓ Storage of equipment, cleaning, sanitizing and provisioning

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Announcing – User Groups!

HRS is launching new User Groups, intended to provide a platform for clients to network, learn from each other, and exchange ideas and best practices on RPM and Telehealth programs.

RPM Postpartum Hypertension User Group

This group of HRS clients will be led by Dr. Sarosh Rana with the goal of collaborating to understand program nuances, operational workflows, funding sources, and potentially pool data.

First meeting: Thursday, February 1 (1:00 to 2:00 PM ET)

How to join:

1. Post a message in the chat to let us know you're interested
2. Email us at marketing@healthrecoverysolutions.com
3. Complete the Contact Us form on our website, www.healthrecoverysolutions.com

Not a client yet? Contact us for more information on how to get started.

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Questions?

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