

Welcome!

We are so glad you are here!

We will get started shortly.
In the meantime, we invite you to intentionally enter this space.



Silence your cell phone



Stretch



Close the door



Take a few deep breaths



Close browser windows



Emotionally release your to-do list



Check your audio and video



Take a bio break

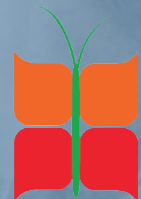
Healthier Outcomes in Preeclampsia Webinar

WEDNESDAY, MAY 31, 2023
3:00PM — 4:30PM ET

The Healthy Start TA & Support Center is operated by the National Institute for Children's Health Quality (NICHQ). This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number 1 UF5MC327500100 titled Supporting Healthy Start Performance Project.

NICHQ
National Institute for
Children's Health Quality

HEALTHY
start
TA & SUPPORT CENTER



HEALTHIER OUTCOMES IN PREECLAMPSIA WEBINAR

Agenda

**Housekeeping &
Welcome**

Wykinia Jones
HEALTHY START TA & SUPPORT
CENTER (TASC)

**Healthier
Outcomes in
Preeclampsia
Webinar**

Carrie MacMillan
Eleni Tsigas
PREECLAMPSIA FOUNDATION

Wrap-up

Wykinia Jones
TASC



NICHQ
National Institute for
Children's Health Quality

**HEALTHY
start**
TA & SUPPORT CENTER



THIS SESSION IS BEING RECORDED.



ALL PARTICIPANTS ARE MUTED UPON ENTRY. WE ASK THAT YOU REMAIN MUTED TO LIMIT BACKGROUND NOISE.



PARTICIPANTS ARE ENCOURAGED TO SHARE COMMENTS AND ASK QUESTIONS USING THE CHAT BOX.

Healthier Outcomes in Preeclampsia Webinar

Eleni Tsigas
Carrie MacMillan

PRE ECLAMPSIA FOUNDATION

NICHQ
National Institute for
Children's Health Quality

HEALTHY
start
TA & SUPPORT CENTER

HEALTHIER OUTCOMES IN PREECLAMPSIA WEBINAR
HOSTED BY THE HEALTHY START TA & SUPPORT CENTER AT NICHQ

Today's Agenda

- Introduction
- What is Preeclampsia?
- Who Gets Preeclampsia?
- Diagnosis / Signs & Symptoms
- Blood Pressure Measurement
- Clinical Protocols Quick View
- Postpartum Effects
- Empowering Patient Voices
- Q & A

Our Point of View is informed by...



Mission

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.**

Our 3
Pillars of Purpose
are
symbiotic,
each
fueling the
other.



MoMMA's
Voices



MAY 2023

#PreeclampsiaAwarenessMonth

A SNAPSHOT

8,717

patients participating in research through the Preeclampsia Registry

600,000+

accounts reached by our channels



THEME: Move Preeclampsia Research Forward

No family should face early delivery due to **PREECLAMPسيا.**

We need better treatment options than "we have to deliver your baby now."

Move preeclampsia research forward



Most shared graphic



#WorldPreeclampsiaDay

38.4M

 accounts reached

31

 countries

53

 languages

120K preeclampsia.org page visits in May

5,000

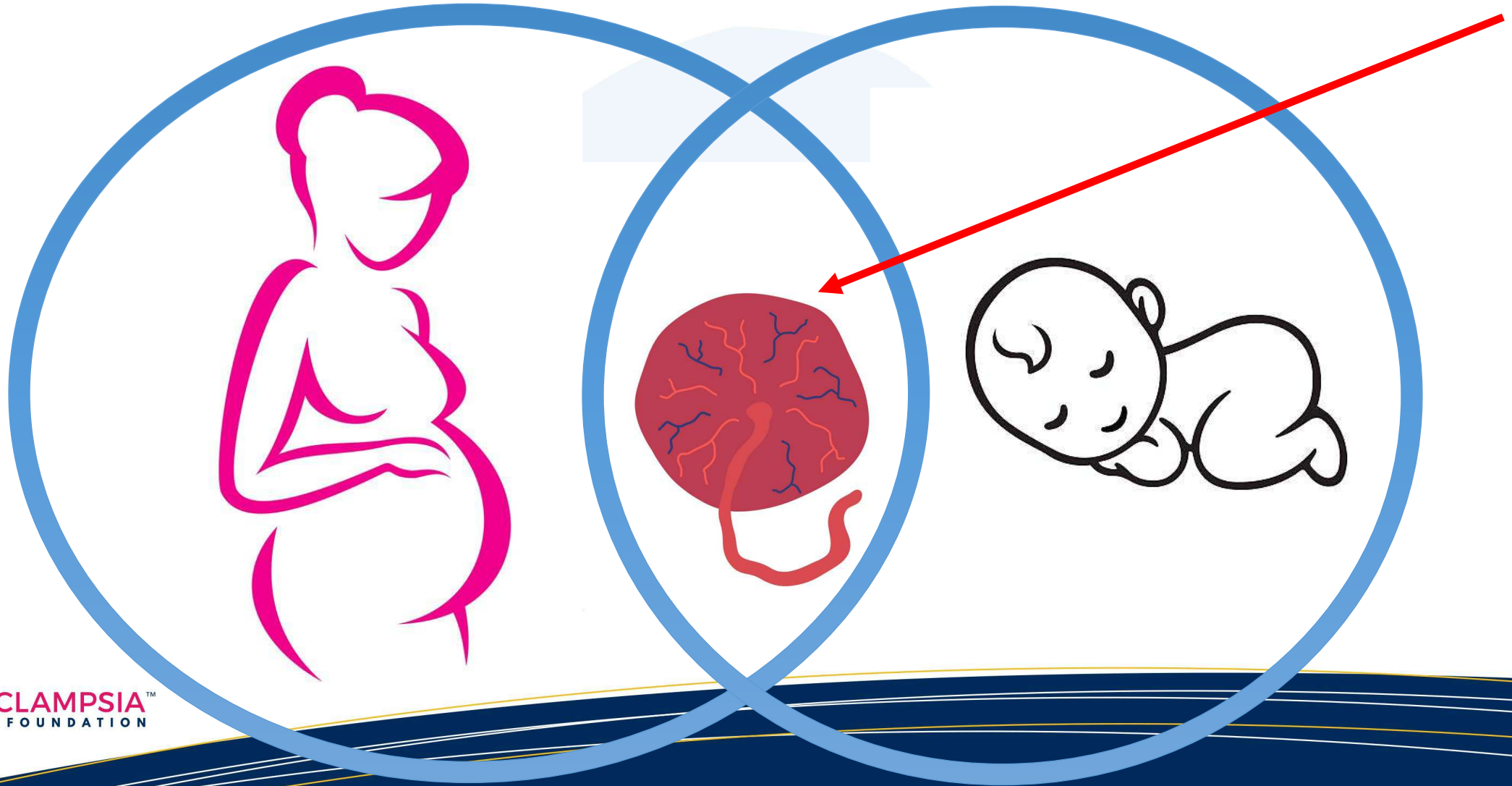
Cuff Kits distributed throughout

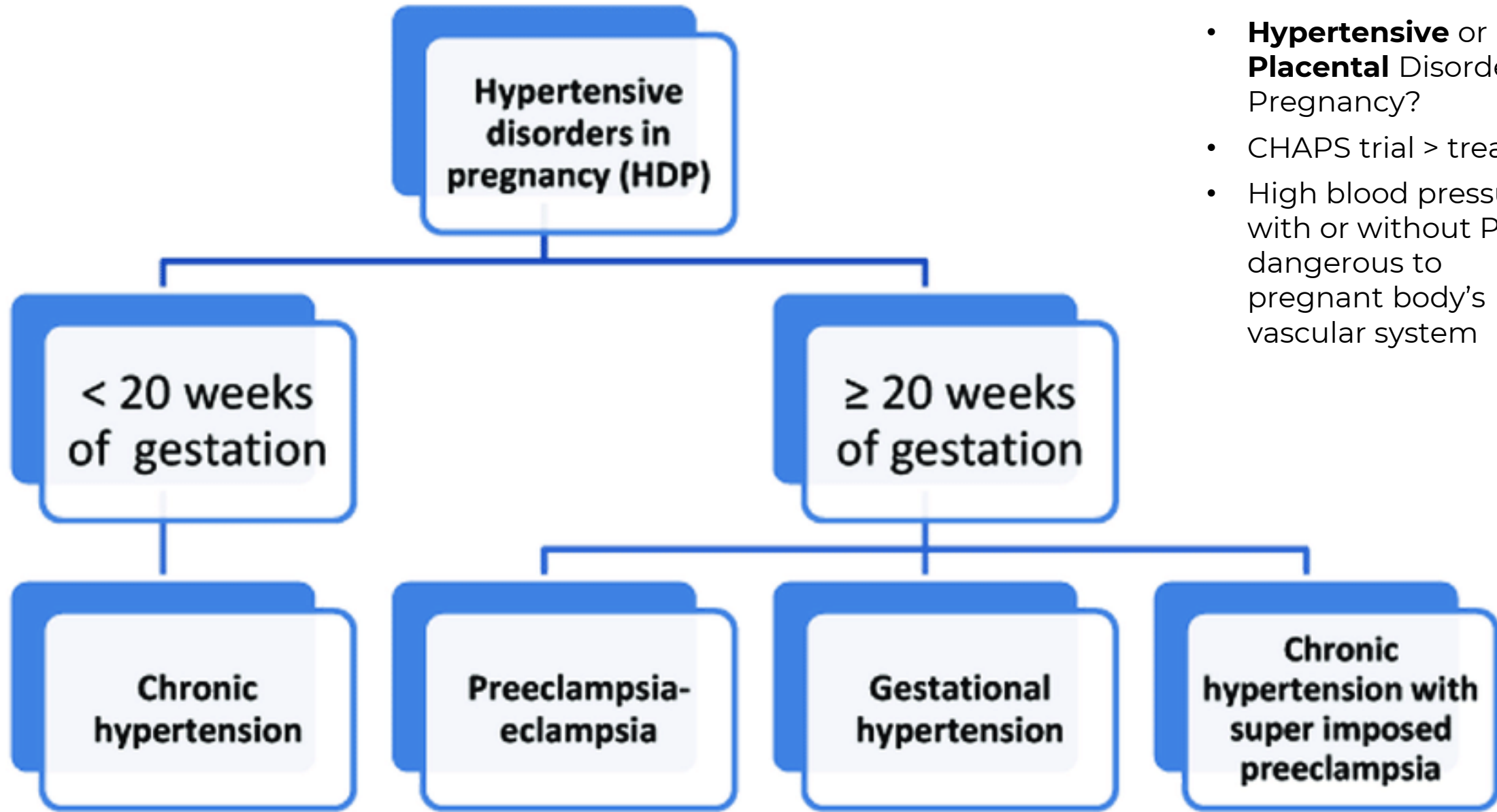


www.preeclampsia.org/awarenessmonth

Poll

What Causes Preeclampsia?

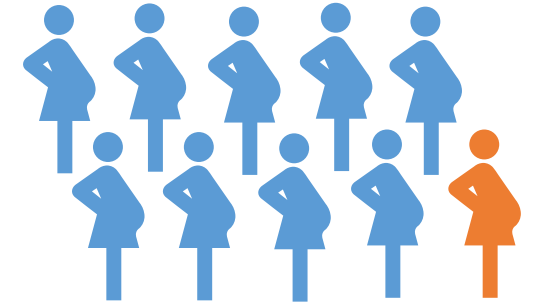




- **Hypertensive** or **Placental** Disorder of Pregnancy?
- CHAPS trial > treat it!
- High blood pressure with or without PE is dangerous to pregnant body's vascular system

Any Woman, Any Pregnancy

- Preeclampsia typically occurs after 20 weeks gestation and up to 6 weeks postpartum
- The incidence of preeclampsia is *rising* in the US
- African American and Native American women are **3x more likely** to die from preeclampsia



4-10%

of pregnancies
in the US

9%

of maternal
deaths

19%

of medically
indicated preterm
births



ACOG Practice Bulletin No. 222. American College of Obstetricians and Gynecologists. Obstet Gynecol 2020.

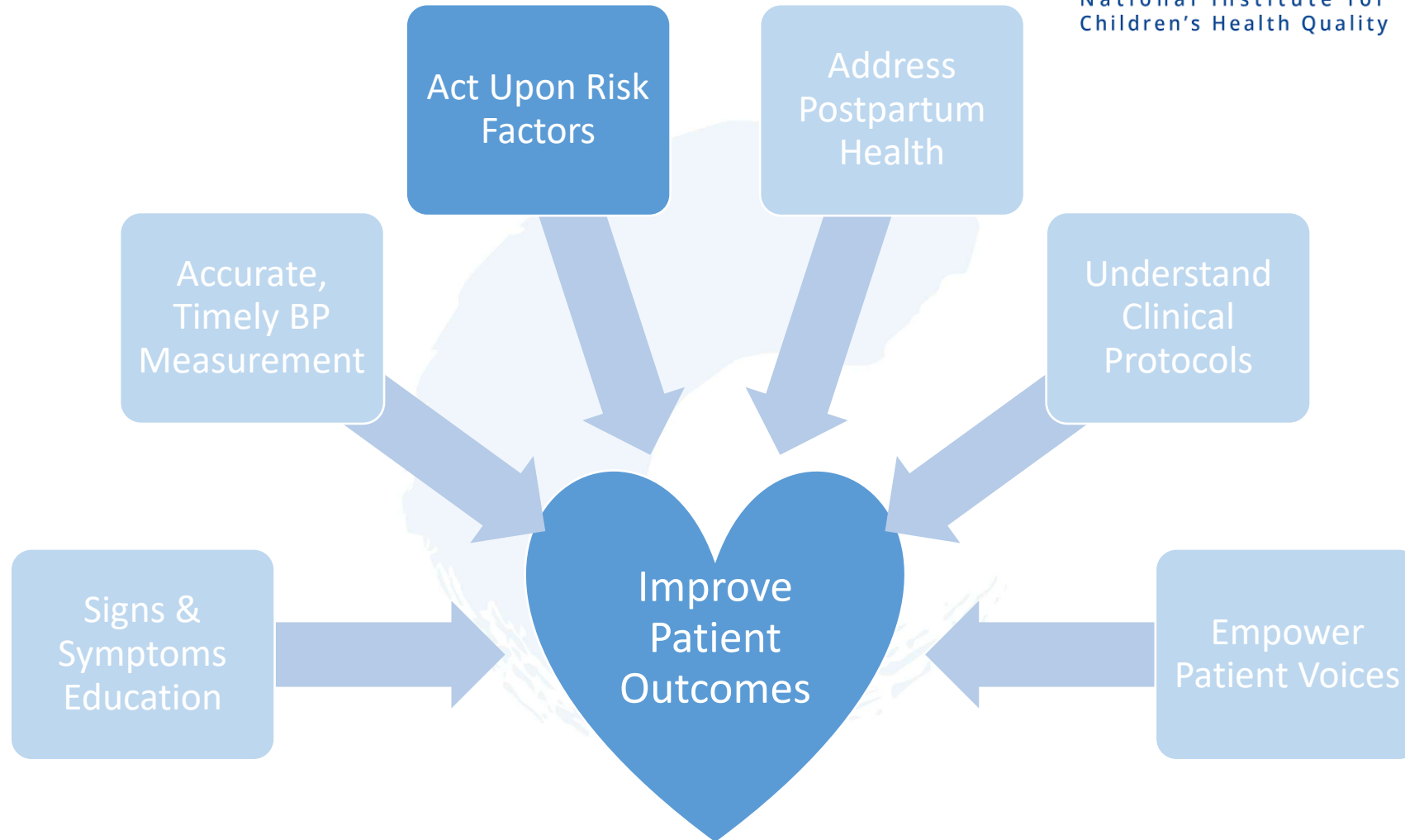
Howell E. Reducing disparities in severe maternal mortality and morbidity. Clin Obstet Gynecol. 2018.

English F, Kenny L, McCarthy, F. Risk factors and effective management of preeclampsia. Integr Blood Press Control. 2015.

Fingar et al. Delivery Hospitalizations Involving Preeclampsia and Eclampsia, 2005–2014. Healthcare Cost and Utilization Project. April 2017.

Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths-United States, 2007–2016. MMWR Morb Mortal Wkly Rep 2019.

Gyamfi-Bannerman et al. Pre-eclampsia outcomes at delivery and race. The Journal of Maternal-Fetal & Neonatal Medicine. 2020.



Who Gets It? Risk Factors



Risk Level	Risk Factors	Recommendation
High	<ul style="list-style-type: none"> • History of preeclampsia in previous pregnancy • Multifetal gestation (twins, triplets, etc.) • Chronic hypertension (high blood pressure) • Type 1 or 2 diabetes • Renal disease (kidney disease) • Autoimmune disease (lupus, antiphospholipid syndrome, etc.) 	Recommend low-dose aspirin if the patient has one or more of these high-risk factors
Moderate	<ul style="list-style-type: none"> • Nulliparity (never having given birth) • Obesity (body mass index (BMI) >30) • Family history of preeclampsia (mother or sister) • Age ≥35 or <18 years old • Personal history (e.g., low birthweight or small for gestational age, previous adverse pregnancy outcome, >10-year pregnancy interval) • Social influencers on health (e.g., Black, rural, Medicaid insurance) 	Consider low-dose aspirin if the patient has two or more of these moderate-risk factors
Low	<ul style="list-style-type: none"> • Previous uncomplicated full-term delivery 	Do not recommend



Final Recommendation Statement: Low-Dose Aspirin for the Prevention of Morbidity and Mortality From Preeclampsia: Preventative Medicine. 2016. Retrieved from U.S. Preventive Services Task Force. Gestational hypertension and preeclampsia.

ACOG Practice Bulletin No. 222. American College of Obstetricians and Gynecologists. Obstet Gynecol 2020;135:e237-60.

Who Gets It? Risk Factors



BMI CALCULATOR

Risk Level		Ask About Aspirin It may delay or prevent the onset of preeclampsia	Recommendation	
High	<ul style="list-style-type: none"> History of preeclampsia Multifetal gestation Chronic hypertension Type 1 or 2 diabetes Renal disease (kidney disease) Autoimmune disease (e.g., lupus, rheumatoid arthritis, Sjögren's syndrome, etc.) 	<p>If you have any of these risk factors</p> <ul style="list-style-type: none"> History of preeclampsia Pregnant with more than one baby High blood pressure Diabetes Kidney disease Autoimmune disorders <p>Treatment with low-dose aspirin should not decrease regular monitoring and response by a certified care provider. If you experience signs or symptoms of preeclampsia, notify your care provider.</p>	Recommend low-dose aspirin if the patient has one or more of these high-risk factors	
Moderate	<ul style="list-style-type: none"> Nulliparity (never had a baby) Obesity (body mass index ≥30) Family history of preeclampsia Age ≥35 or <18 years Personal history (e.g., gestational age, preterm birth, stillbirth, or other adverse pregnancy outcome, >10-year history of chronic hypertension) Social influencers of preeclampsia (e.g., Medicaid insurance) 		<p>Talk to your care provider about taking prenatal aspirin</p> <p>Start taking 81 mg aspirin between 12-16 weeks of your pregnancy daily at bedtime</p>	Consider low-dose aspirin if the patient has two or more of these moderate-risk factors
Low	<ul style="list-style-type: none"> Previous uncomplicated pregnancy 			Do not recommend



Final Recommendation Statement: Aspirin for Prevention of Preeclampsia. Preventative Medicine. 2016.

ACOG Practice Bulletin No. 222

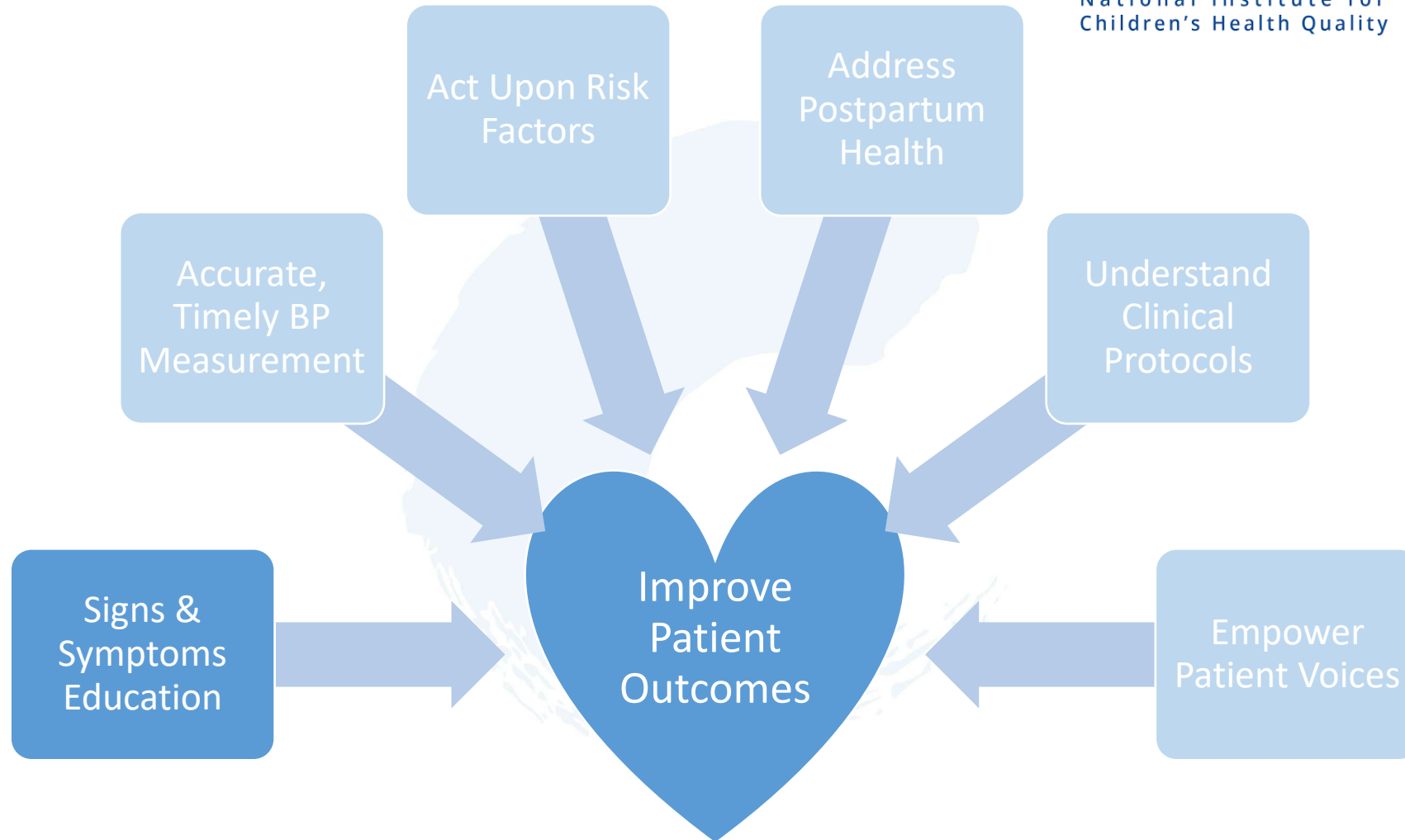


To learn more, visit preeclampsia.org/aspirin

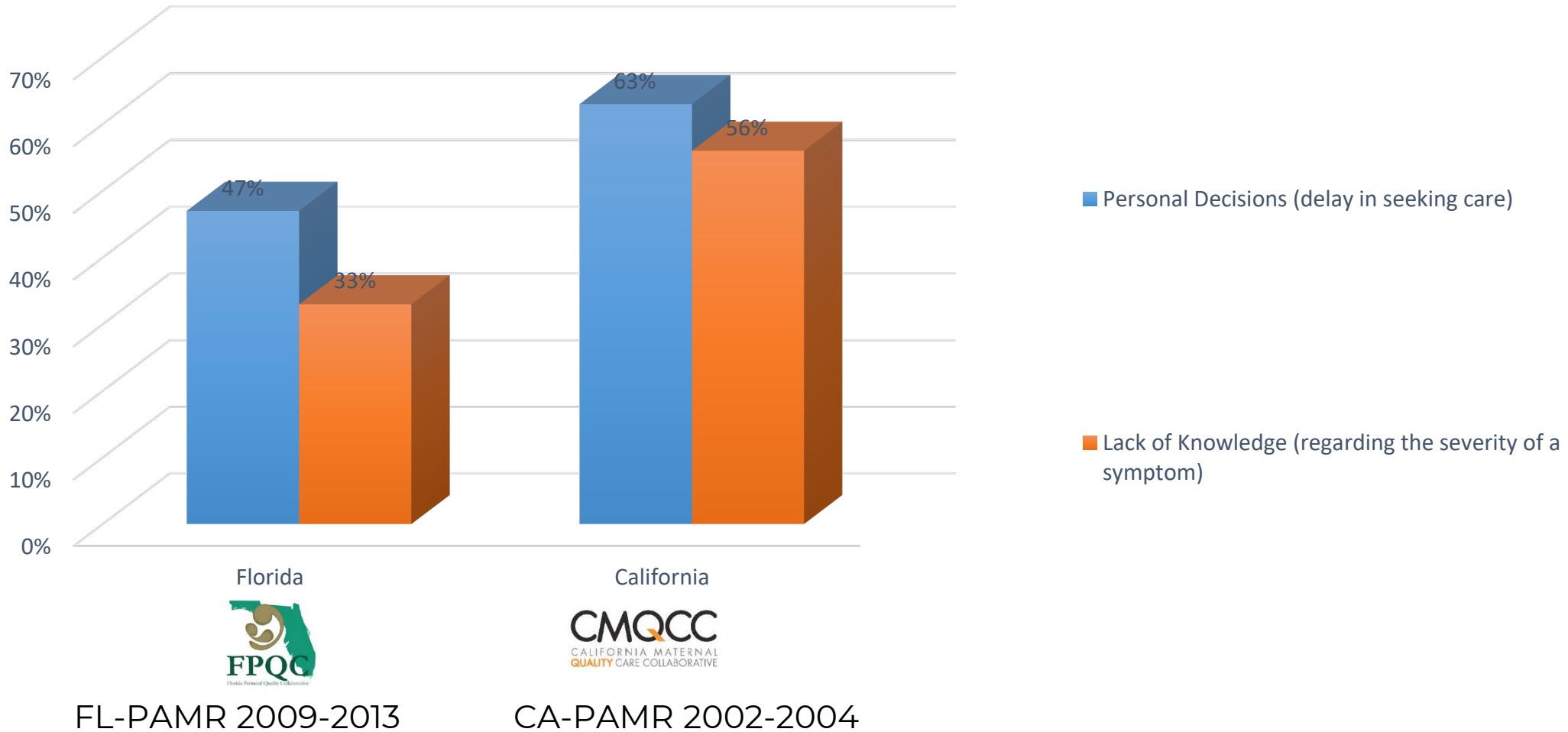
Copyright © 2018 Preeclampsia Foundation. All Rights Reserved.

Prevalence, Morbidity and Mortality From Preeclampsia: A Systematic Review and Meta-analysis. Obstet Gynecol 2010;115:105-113.

Obstet Gynecol 2020;135:e237-60.



Patient factors in maternal mortality from hypertensive disorders



Contributing Factors for Preeclampsia

Factor Level (% of Total Factors)	Most Common Factor Class(es) (% of Level-Specific Classes)	Common Themes
Facility (3.6%)		Inappropriate level of care
Patient/Family (23.2%)	Chronic Disease (30.1%)	Substance use Obesity
	Knowledge (15.4 %)	Lack of knowledge on warning signs and need to seek care
Provider (51.8%)	Knowledge (20.7%)	Delayed diagnosis or treatment Misdiagnosis or ineffective treatment
	Referral (13.8%)	Failure to seek consultation
	Assessment (10.3%)	Failure to screen
	Clinical Skill/Quality of Care (10.3%)	
Systems of Care (17.9%)	Communication	Lack of communication between providers that supports patient management

How Is Preeclampsia Diagnosed?

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

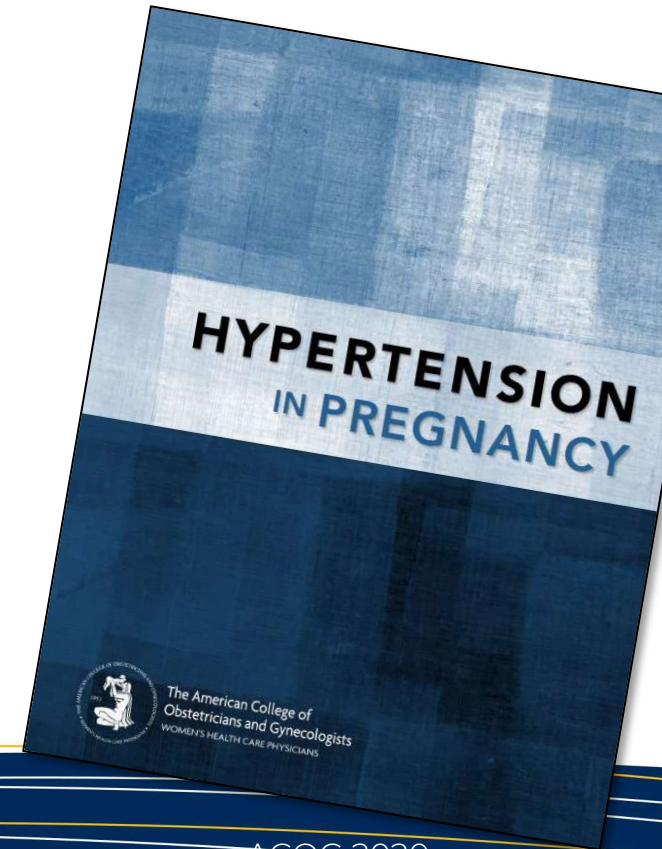
PLUS

- 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**)
 - new headache unresponsive to Rx (**brain**)
 - visual disturbances (**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

OBSTETRICS

Improving patient understanding of preeclampsia: a randomized controlled trial

Whitney B. You, MD, MPH; Michael S. Wolf, PhD, MPH; Stacy C. Bailey, PhD, MPH; William A. Grobman, MD, MBA

OBJECTIVE: We developed a standardized educational tool to inform women about preeclampsia. The objective of this study was to assess whether exposure to this tool led to superior understanding of the syndrome.

STUDY DESIGN: This was a randomized controlled trial in which 120 women were assigned to (1) a newly developed preeclampsia educational tool, (2) a standard pamphlet addressing preeclampsia that had been created by the American College of Obstetricians and Gynecologists, or (3) no additional information. Preeclampsia knowledge was assessed with the use of a previously validated questionnaire.

RESULTS: There were no demographic differences among the groups. Patients who received the tool scored significantly better on the pre-

eclampsia questionnaire than the control groups. The American College of Obstetricians and Gynecologists (71%, 63%, 49%, respectively) and standard pamphlet (71%, 63%, 49%, respectively) understanding was evident equally among patients with low health literacy (interaction: $P > .05$).

CONCLUSION: Patients who were exposed to a graphic-based educational tool demonstrated superior preeclampsia-related knowledge, compared with those patients who were exposed to standard materials or no education.

Key words: education, preeclampsia, patient education, randomized controlled trial

Cite this article as: You WB, Wolf MS, Bailey SC, et al. Improving patient understanding of preeclampsia: a randomized controlled trial. *Am J Obstet Gynecol*. 2012;206:431.e1-5.

Preeclampsia is a pregnancy-specific condition that affects between 5% and 8% of the pregnant population. The frequency of adverse maternal and perinatal events remains markedly

in the United States.^{1,2} In the developed world, the frequency of adverse maternal and perinatal events remains markedly women who are diagnosed with preeclampsia and receive timely and proper surveillance have fewer adverse events

What is it?

Why should you care?

What should you pay attention to?

What should you do if you have any of the signs?

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




Stomach pain




Headaches




Feeling nauseous; throwing up



Seeing spots




Swelling in your hands and face



Gaining more than 5 pounds (2.3 kg) in a week

What Should You Do?
Call your doctor or midwife right away. Finding preeclampsia early is important for you and your baby.



For more information go to www.preeclampsia.org

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Signs & Symptoms Education

2,553,402

patient education materials distributed increasing knowledge of signs, symptoms and treatments



www.preeclampsia.org/signs-and-symptoms

Do your patients know about preeclampsia?

Brochures | Posters | Tearpads | Videos

Available in multiple languages

Order materials online at

www.preeclampsia.org/store



SCAN ME



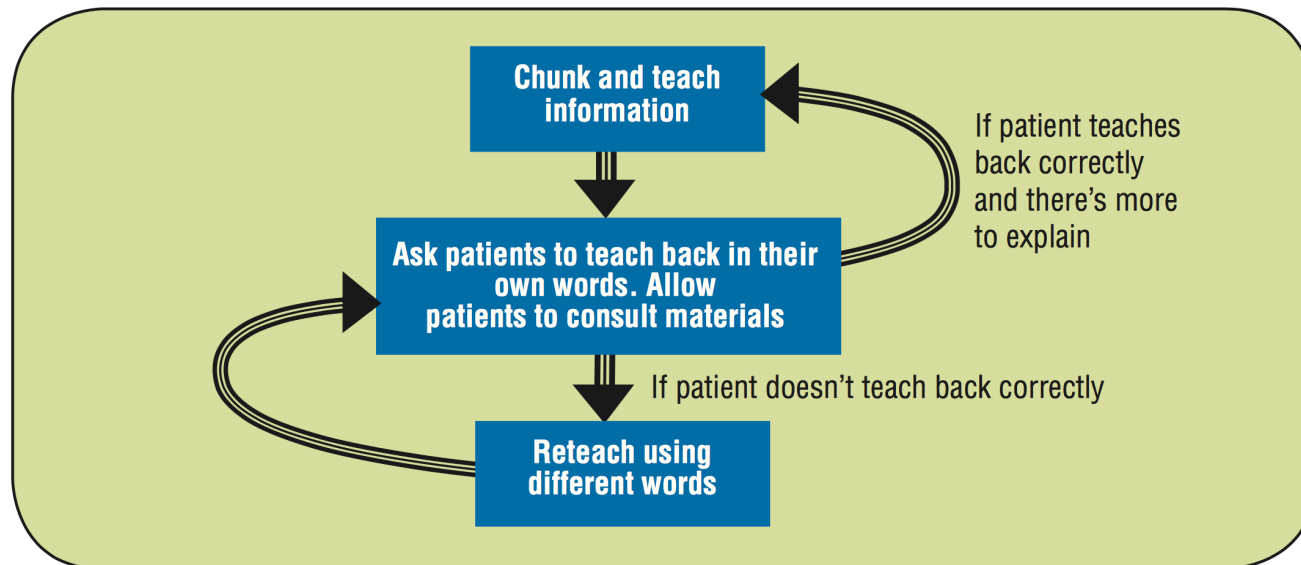
Video available in English and Spanish on YouTube™ or for adding to your website

Key Strategies for Effective Patient Communication

- Use non-medical **plain language**
- Organize information into 2 or 3 components (“**chunk & check**”)
- **Pictures** speak louder than words
- Do not assume patients’ literacy levels or understanding by appearance
- Messages must be **repeated** to be remembered
- Use **multiple teaching strategies** for different learning styles
- Use “**teach back**” to confirm understanding with open-ended Q’s



Teach-Back Method



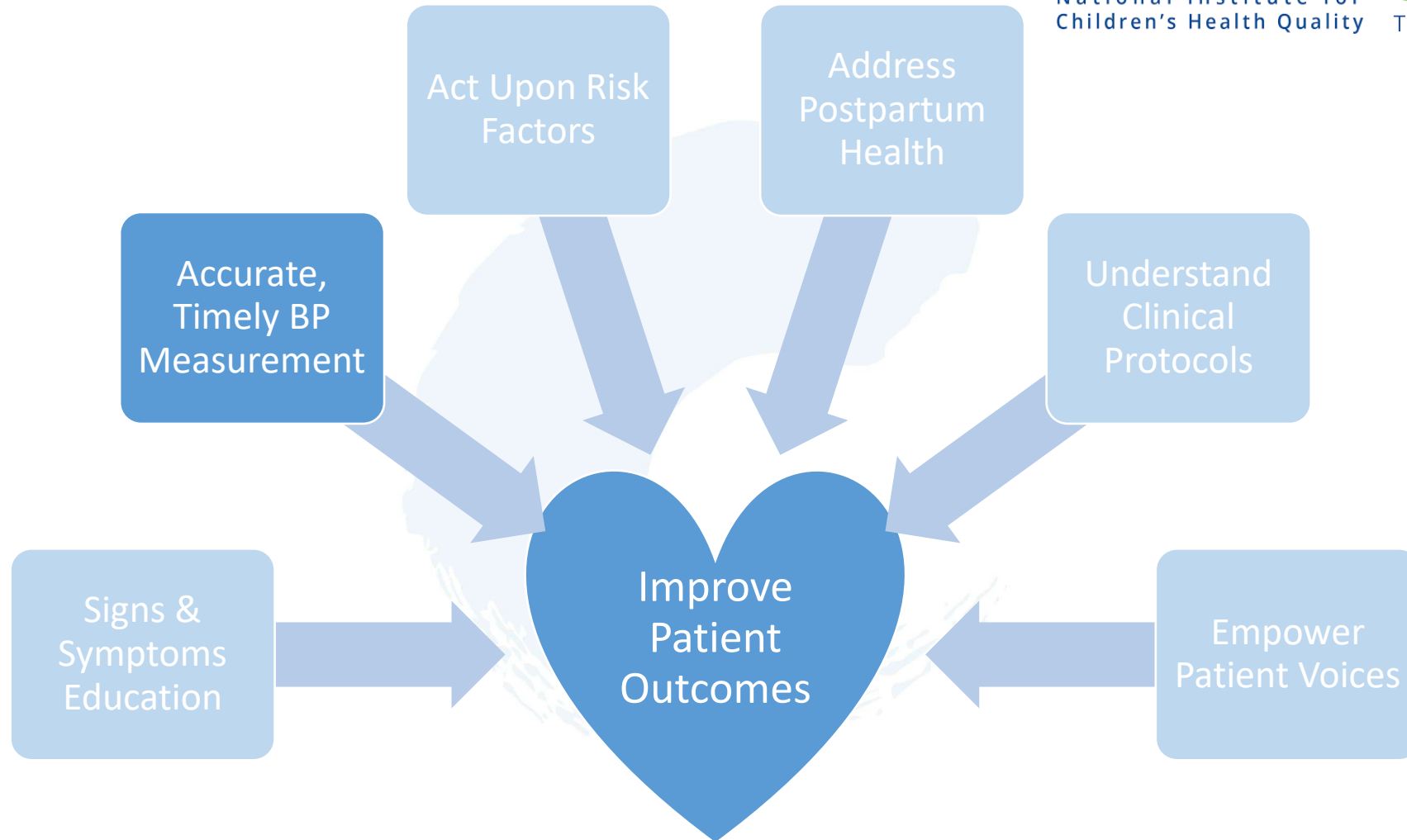
Source: Agency for Healthcare Research and Quality.

How would you communicate the signs and symptoms of preeclampsia to your client?



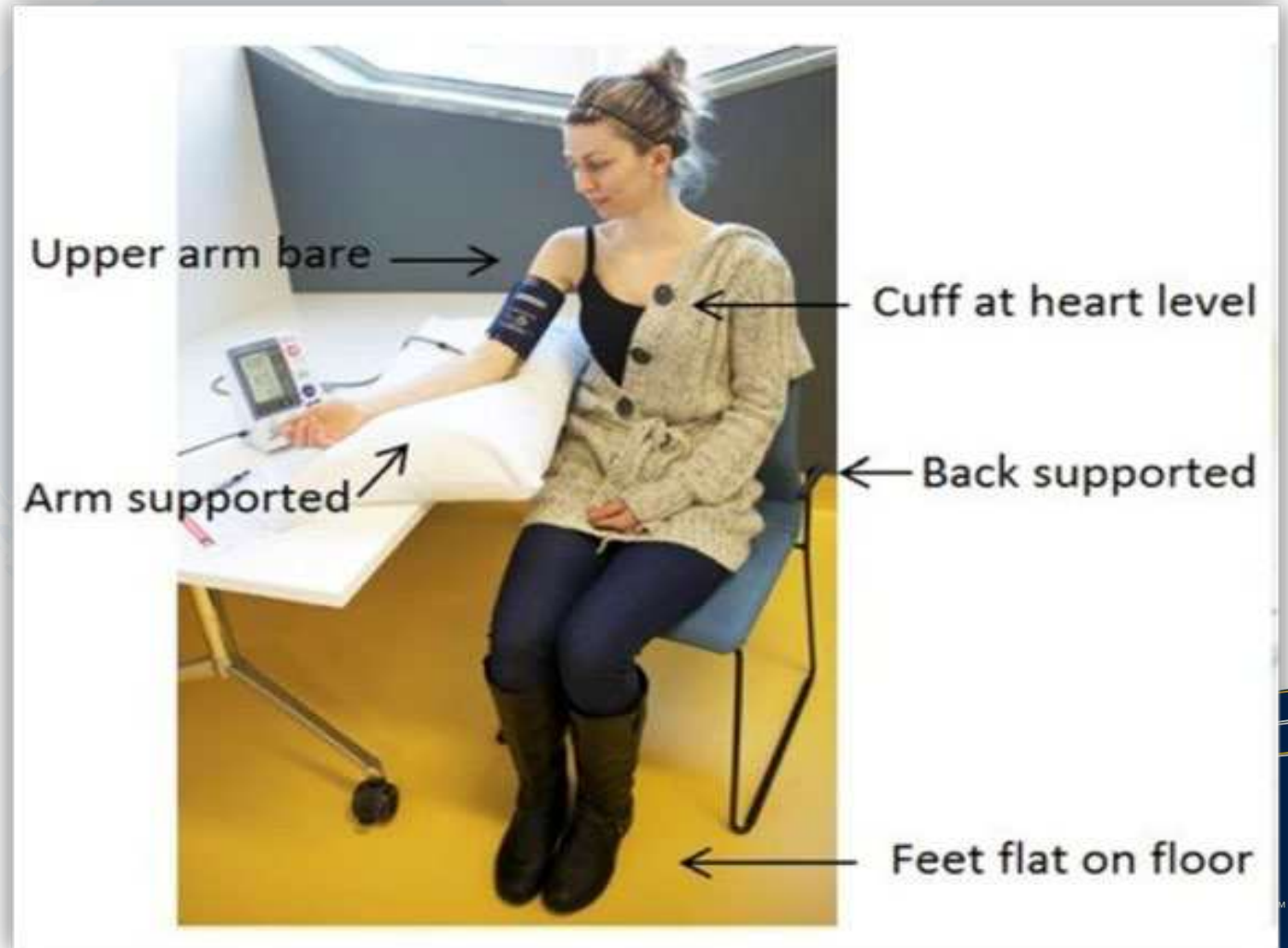
How do your clients communicate their symptoms?

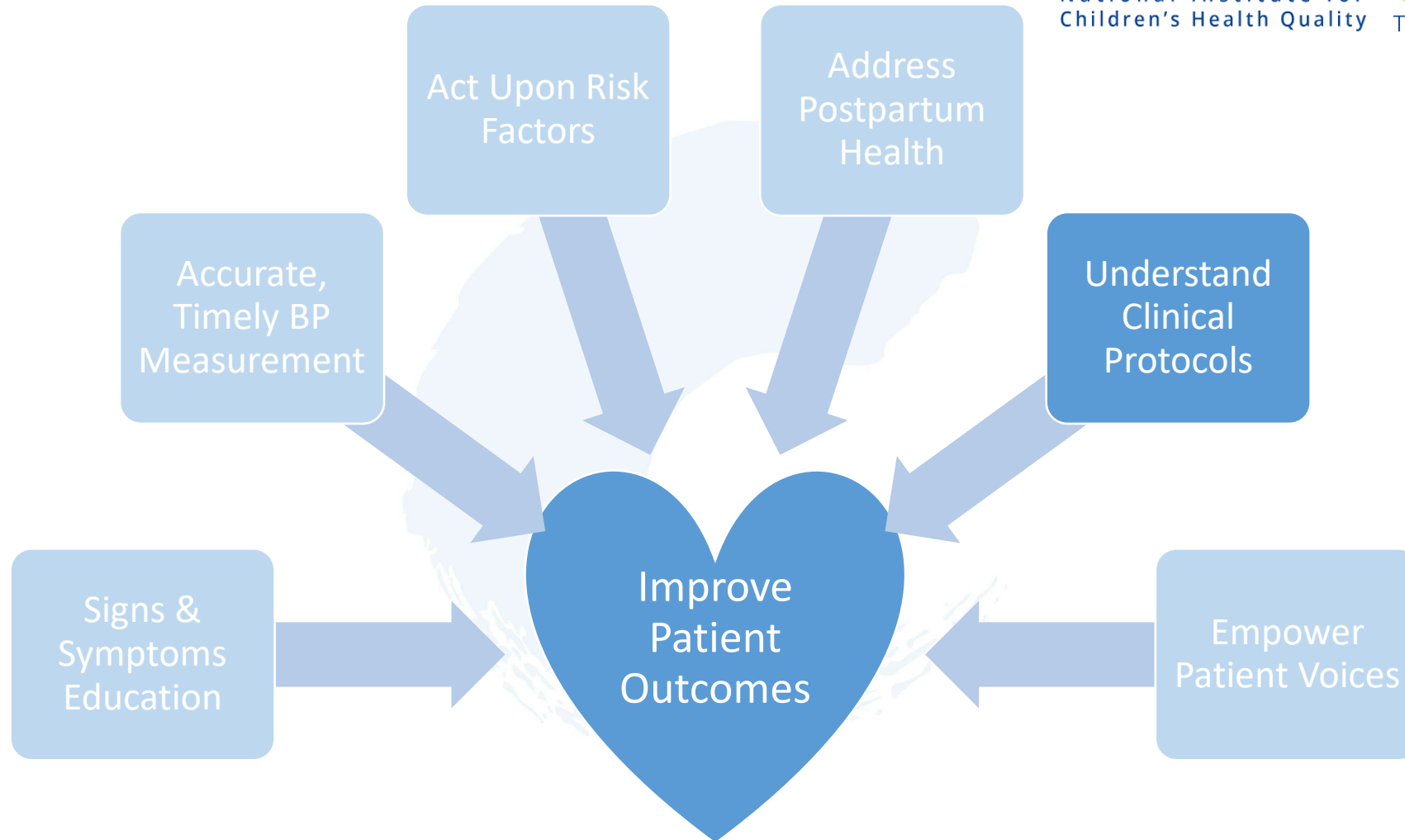
Breakout Rooms to Discuss Signs and Symptoms Education



Accurate BP measurement: Proper positioning is essential

- Position the patient semi-fowlers in a bed with the head of the bed elevated 30-40 degrees; arm supported; legs uncrossed
- Or position the patient sitting in a chair with her feet resting on the floor.





Diagnosis & Management



1. Recognize symptoms & diagnosis quickly
 - Providers – listen to patient and take accurate BP & do bloodwork (labs)
 - Patients – know what to recognize and report
2. Control severe range blood pressure within 1 hour
 - With antihypertensive medications
3. Prevent seizures
 - With magnesium sulfate
4. Delivery vs. Expectant Management vs. Outpatient Monitoring
 - Appropriate timing depending on gestational age and maternal and fetal conditions
5. Postpartum surveillance and BP follow up

MAKING SENSE OF PREECLAMPSIA TESTS

DURING PREGNANCY

BLOOD PRESSURE

Your blood pressure is monitored to make sure it isn't too high. High blood pressure is typically defined as blood pressure of 140/90 or greater.



URINE PROTEIN LEVEL

Your urine is tested to make sure your kidneys are healthy. If your urine dipstick test detects protein, you may be asked to collect your urine for 24 hours for additional testing.



WEIGHT

Your weight is tracked to make sure you haven't gained more than 3-5 pounds in a week, which may indicate excess fluid retention.



BLOOD TESTS

Your provider may also run a complete blood count (CBC) with a platelet count, kidney function assessment, and liver enzyme levels (AST and ALT).



CREATININE LEVEL

A blood test for creatinine level measure your kidney function. An elevation over time means that kidney function is impaired.

URIC ACID LEVEL

Changes in your kidney function may also be found by checking your blood for excess uric acid.



AFTER PREGNANCY

BLOOD PRESSURE

Preeclampsia symptoms may continue or appear for the first time after delivery, so your blood pressure should be monitored after delivery and at your follow-up appointments for up to six weeks.



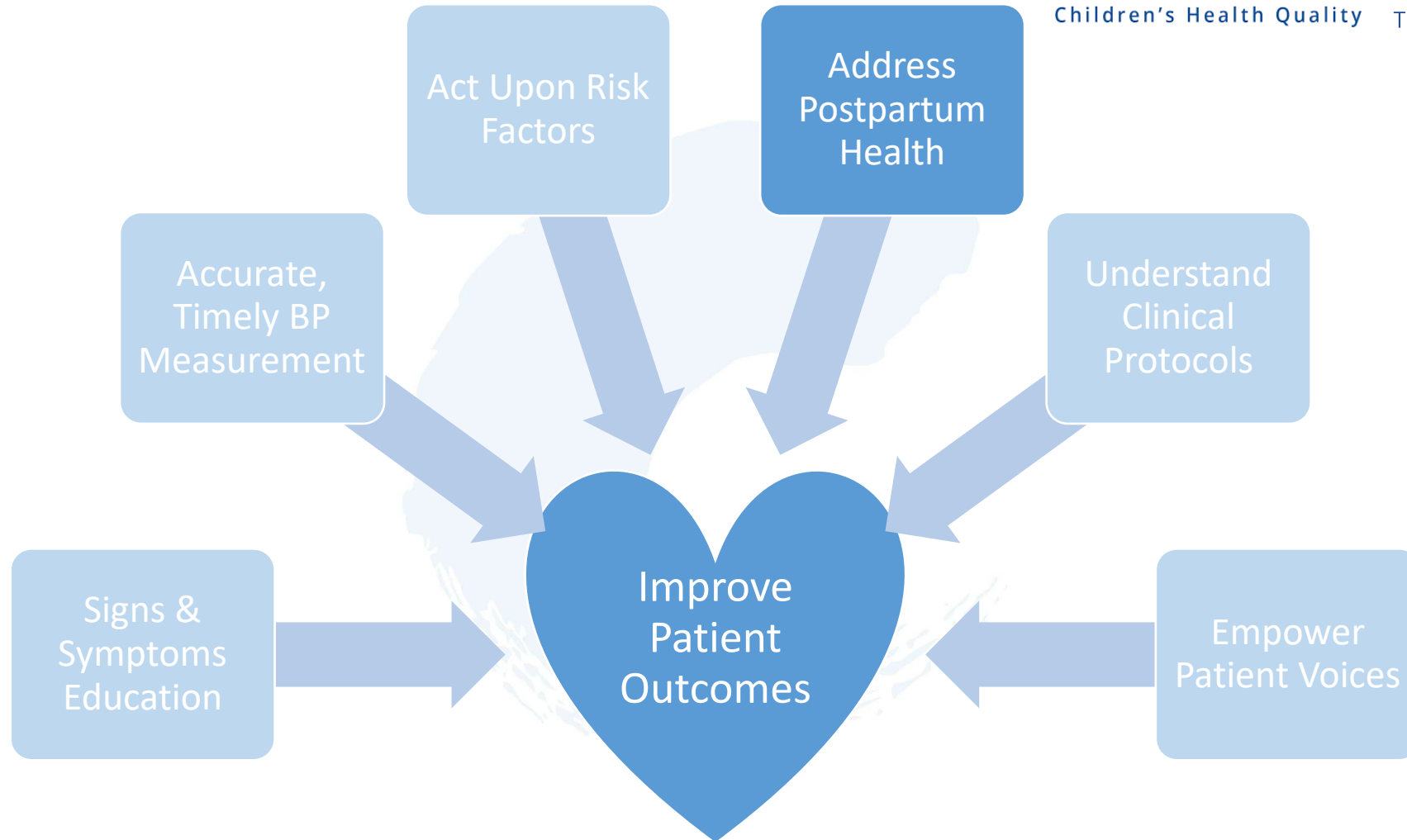
FOLLOW-UP CARE

Women who have had preeclampsia are at higher risk for heart disease, stroke, and other conditions. Talk to your doctor every year at your well-woman visit about your pregnancy health and its potential impact on you:



- HEART HEALTH
- KIDNEY FUNCTION
- MENTAL HEALTH
- RISK FOR AUTOIMMUNE CONDITIONS





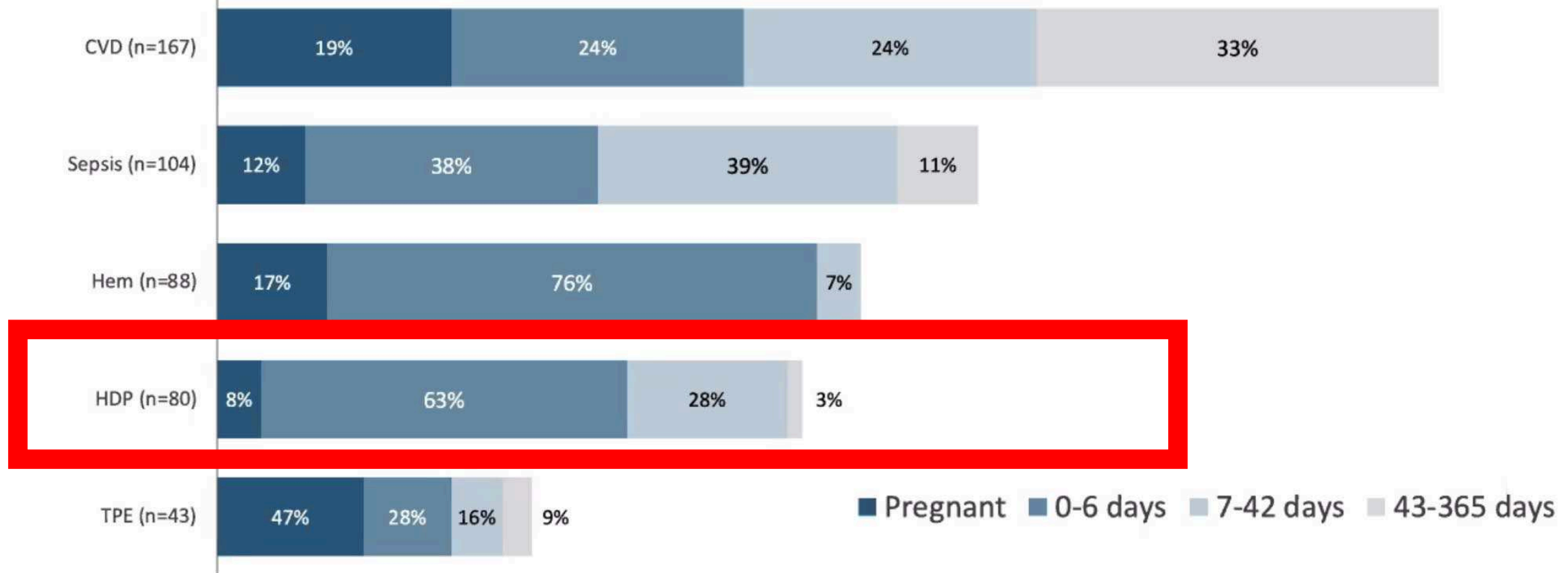
What About Postpartum Preeclampsia

- Delivery is NOT the “cure” – treatment (delivery) starts to resolve the process
- Residual hypertension (Who? How long?)
- Delayed onset preeclampsia (“de novo”)
 - Some evidence that delayed onset postpartum preeclampsia associated with increased risk of progression to chronic hypertension
- Risk factors and characteristics are the *mostly* the same between PP PE and antenatal preeclampsia



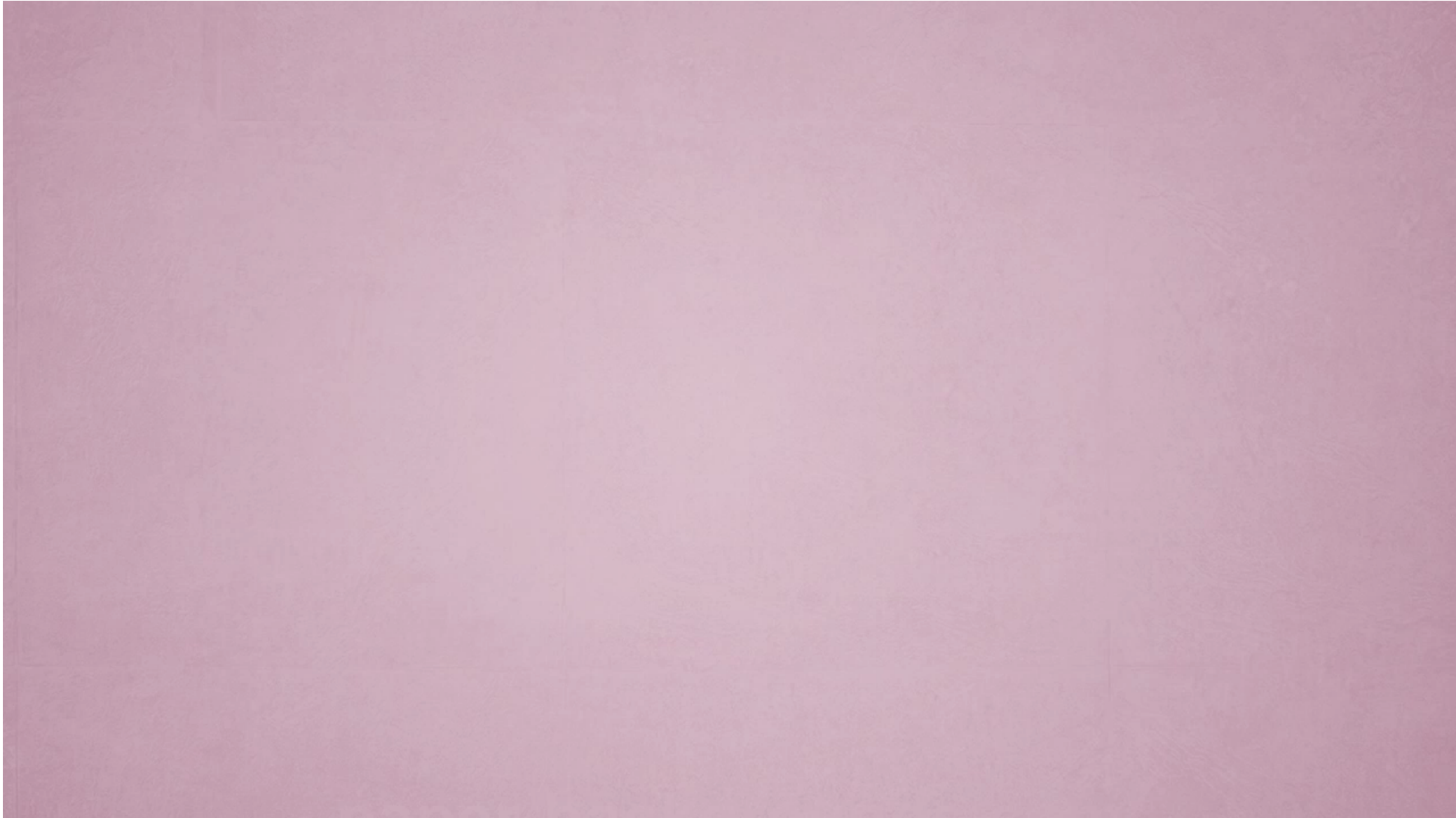
Pregnancy-Related Deaths by Cause and Timing to Death, California 2008-2016 (N=608)

CA-PMSS Surveillance Report: Pregnancy-Related Deaths in California, 2008-2016. Sacramento: California Department of Public Health, Maternal, Child and Adolescent Health Division. 2021.



Pregnancy-related deaths include deaths within a year of pregnancy from causes related to or aggravated by the pregnancy or its management, as determined by expert committee review.

Postpartum Video



Recovery After Preeclampsia: Heart

Pregnancy is a
window to future
heart health.



www.preeclampsia.org/beyond-pregnancy

Hypertension in Pregnancy, iFirst:1-9, 2011
Obstet Gynecol 2015;125:1287-92

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Recovery After Preeclampsia: Heart

2.6 million women in
the US today who
had preeclampsia
will die from heart
disease...

2 out of every 3
survivors



www.preeclampsia.org/beyond-pregnancy

Hypertension in Pregnancy, iFirst:1-9, 2011
Obstet Gynecol 2015;125:1287-92

Emotional Recovery After Preeclampsia

Failure

Anxiety

Guilt

Depression

Anger

Fractured family

Acute stress disorder

**Post-traumatic
stress disorder (PTSD)**

Furuta M, et al. BMC Pregnancy Childbirth. 2012 Nov 10;12:125.

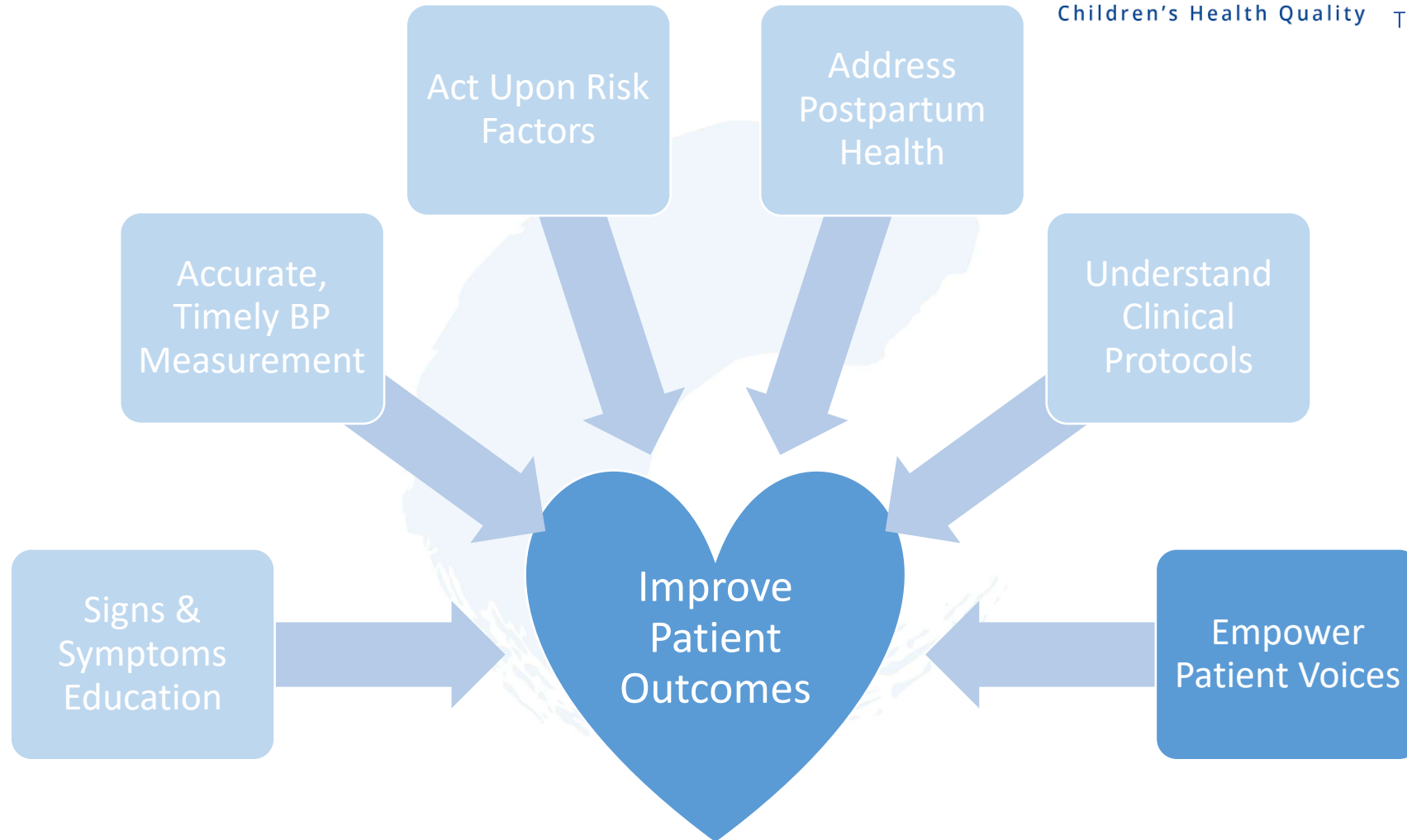
Porcel J, et al. Pregnancy Hypertens. 2013 Oct;3(4):254-60.

Stramrood CA, et al. Arch Gynecol Obstet. 2013 Apr;287(4):653-61

Delahaije D, et al. Acta Obstet Gynecol Scand 2013; 92:746-761.



Poll



We Must Address the 3 Deadly D's

Delay

Denial

Dismissal



Breakout Rooms to Share Stories about Delay, Denial and Dismissal (the 3 Deadly D's)

Tips for Being Effectively Heard

- Use your **BRAIN** as you consider options
 - **B**enefits, **R**isks, **A**lternatives, **I**ntuition, **N**othing
- **CUS** to ensure you are heard
 - “I’m **C**oncerned”
 - “I’m **U**ncomfortable”
 - “I don’t feel **S**afe”
- Ask for concerns to be recorded in your medical record



Using BRAIN to make informed pregnancy healthcare choices

Ask your doctor, midwife, or nurse:

1. What are the **BENEFITS** of this action?
2. What are the **RISKS** of this action?
3. What are my **ALTERNATIVES**?
4. What does my **INTUITION** tell me about this action?
5. What would happen if we did **NOTHING**?

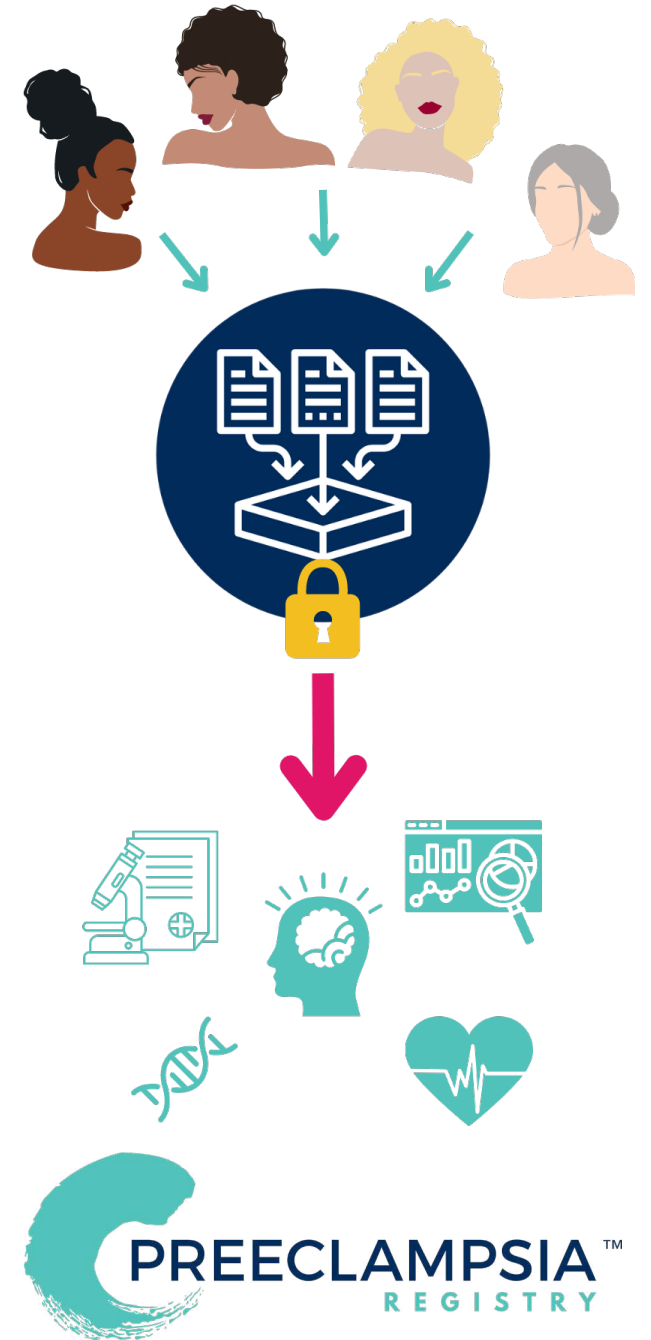


The Preeclampsia Registry

- A “living” database of preeclampsia experiences from over 8,000 women affected by hypertensive disorders of pregnancy – no matter how many years it’s been since you had it!
- Patients enter information once and can then participate in multiple research studies.
- All data is confidential and de-identified prior to sharing with researchers.
- Patients can also opt-in to participate in a DNA biobank.



www.preeclampsia.org/registry



www.cdc.gov/hearher



HEARTM
HEAR HER concerns

Pregnancy-related complications can affect anyone

Learn the urgent maternal warning signs. You could help save her life.

Learn more





 Hear Her Campaign

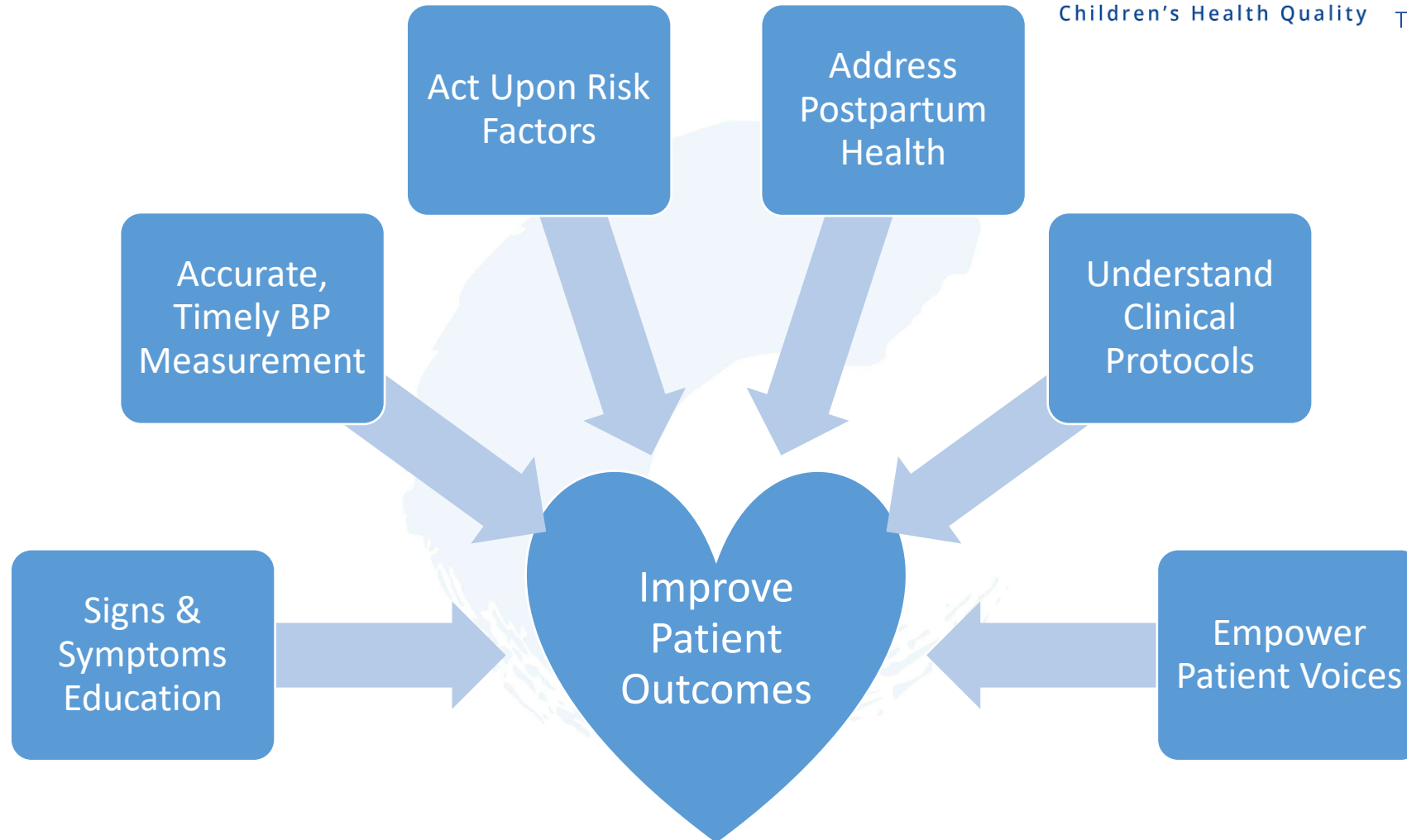
 **HEAR**

Learn more at cdc.gov/HearHer

What's New

- [New materials](#) for healthcare professionals.
- Urgent maternal warning sign poster now available in [Hmong](#)  [PDF 538KB] and [Burmese](#)  [543KB].
- [Hear Her Campaign](#)

Summary of Key Takeaways



Evaluation Poll



Continue the conversation...



Follow us on Twitter, Facebook, Instagram

Visit us at www.preeclampsia.org

Email us at info@preeclampsia.org



Wrap-Up

Wykinia Jones

HEALTHY START TA & SUPPORT CENTER (TASC)

*HEALTHIER OUTCOMES IN PREECLAMPSIA WEBINAR
HOSTED BY THE HEALTHY START TA & SUPPORT CENTER AT NICHQ*



Satisfaction Survey

*YOUR FEEDBACK IS EXTREMELY VALUABLE AND WILL HELP
ENSURE OUR OFFERINGS MEET YOUR SUPPORT NEEDS!*





HEALTHY START CUFF KIT PILOT PROJECT KICKOFF WEBINAR
HOSTED BY THE HEALTHY START TA & SUPPORT CENTER AT NICHQ



Thank you !

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National Institute for
Children's Health Quality

**HEALTHY
start**
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