



**Preventing Maternal Mortality:**  
*Postpartum Care in the ER*



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**Associate Professor of Emergency Medicine**  
**University of Florida - Gainesville**



**Preventing Maternal Mortality:**  
*Postpartum Care in the ER*



# Disclosures

- Nothing to disclose
- Appreciate the use of FPQC ED Training slides on the care of postpartum patients

# Objectives

At the end of the presentation you will be able to

- Describe the Florida's postpartum pregnancy-related mortality stats
- Summarize leading causes of postpartum death, timing and place
- Identify clinical knowledge required of EM providers regarding postpartum patient care
- Plan strategic interventions with your EM colleagues to identify and appropriately care for postpartum emergency patients

# Tampa Bay Times

FLORIDA'S BEST NEWSPAPER

tampabay.com

★★★★ Sunday, August 28, 2022 | \$3

PROPUBLICA

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Soleil Irving "just lights up a room when she smiles," Wanda Irving, her grandmother, says. (Sheila Pree Bright for ProPublica)

LOST MOTHERS

## Nothing Protects Black Women From Dying in Pregnancy and Childbirth

Not education. Not income. Not work-life support. Or racial disparities in health care.

## Maternal mortality crisis in America

Giving birth in the U.S. entails high risk. Biden's administration pushes to reverse that.

BY AKILAH JOHNSON  
*The Washington Post*

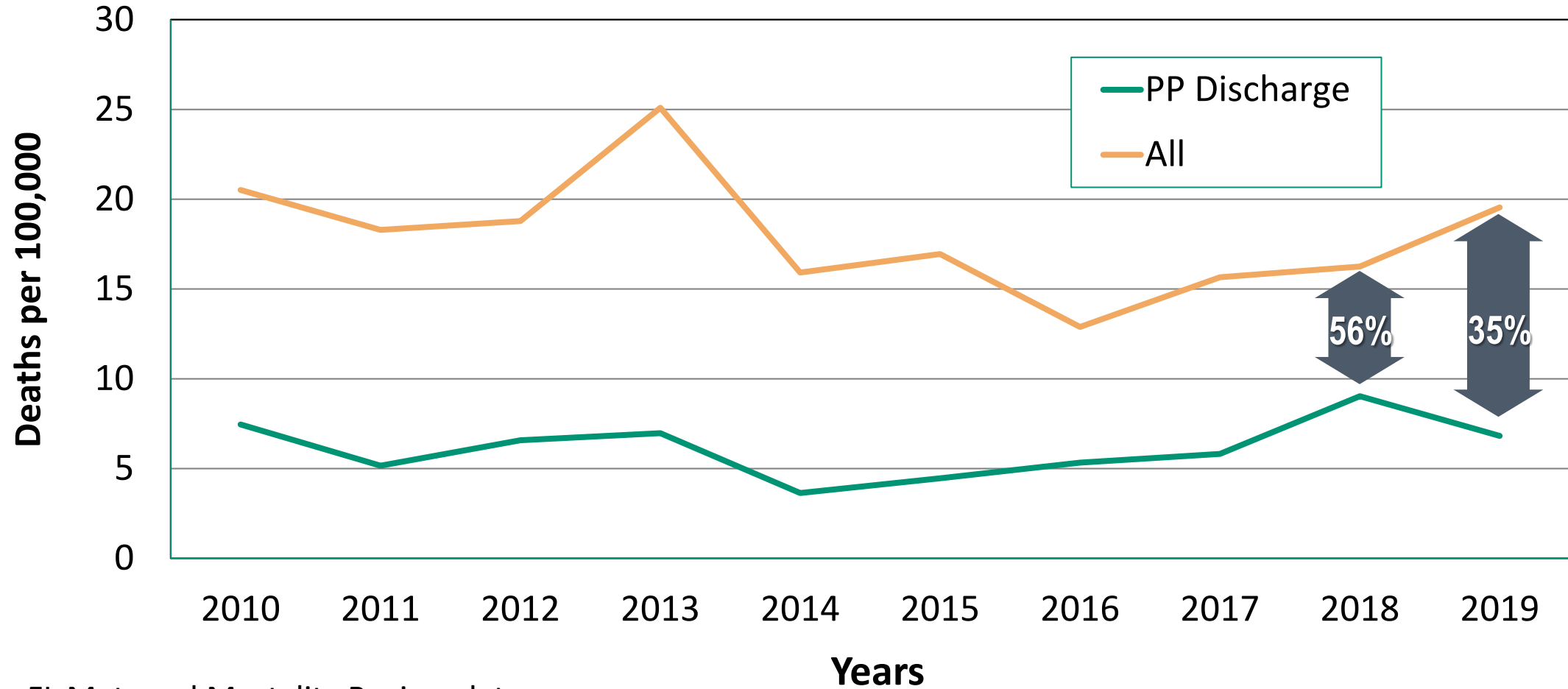
As part of a major push by the Biden administration to address the nation's maternal health crisis, senior officials have traveled the country for the past year, talking to midwives, doulas and people who have given birth about their experiences. They've held summits at the White House.

The result: an almost 70-page plan aimed at taking the United



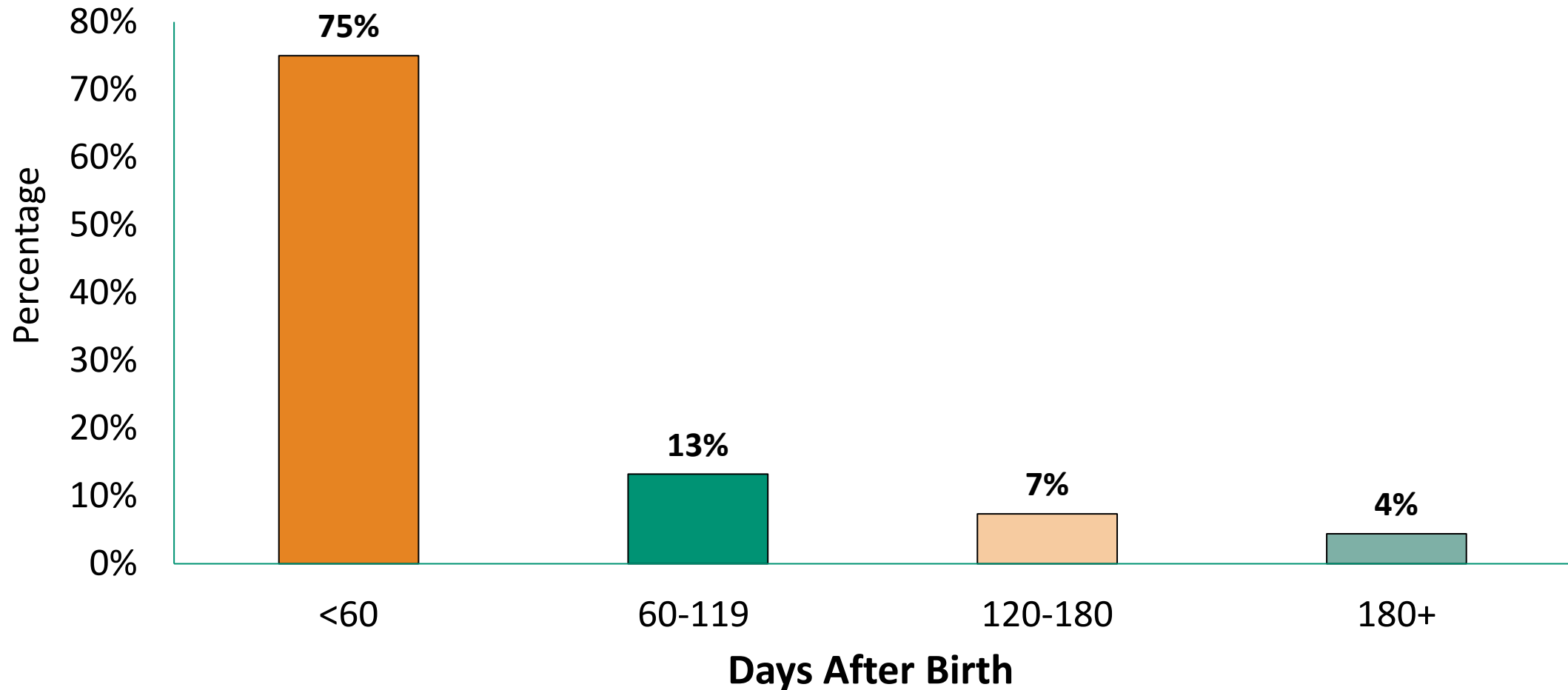
Photos by LAUREN WITTE | Times

# Pregnancy-Related Mortality Rates Florida, 2010 to 2019



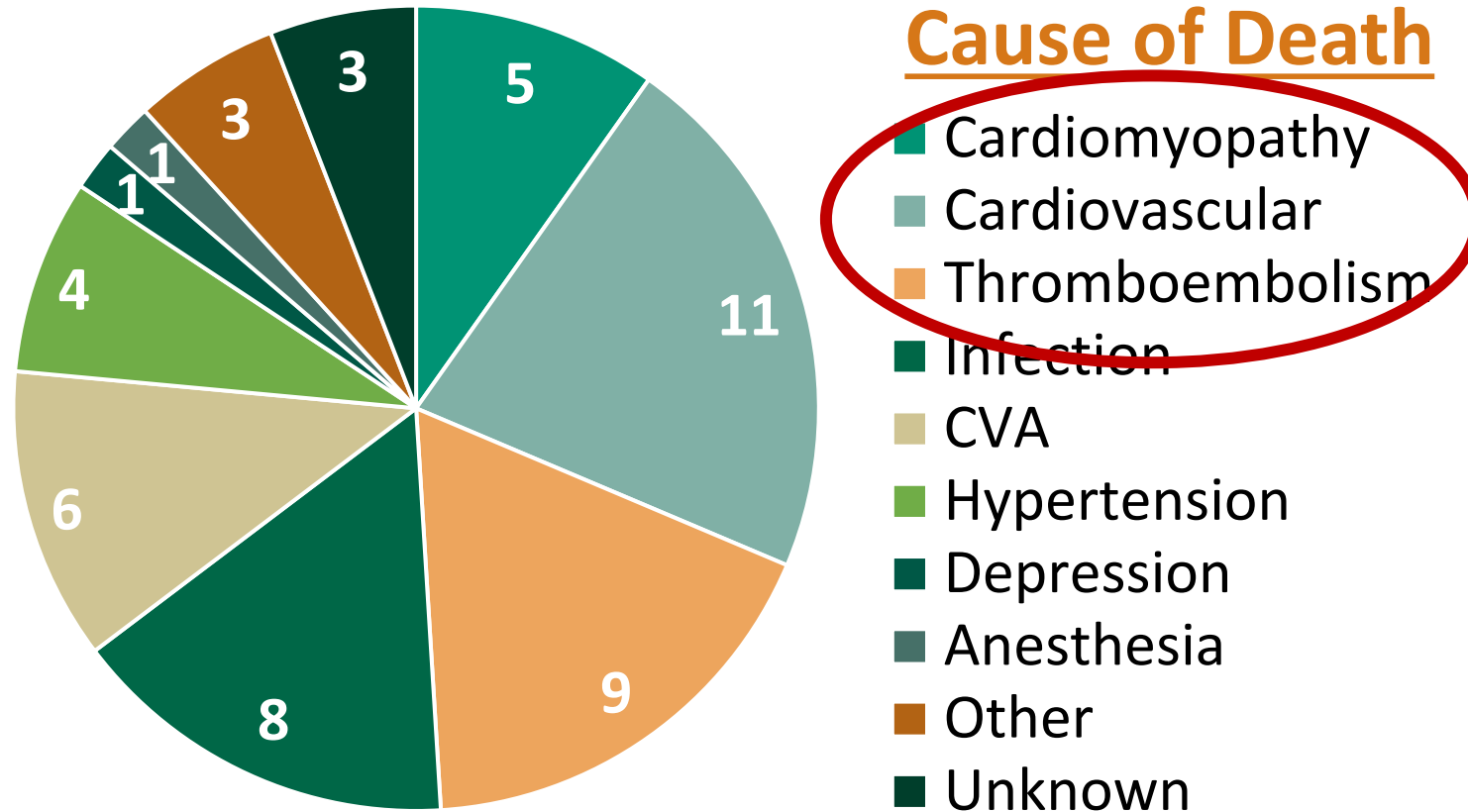
Source: FL Maternal Mortality Review data

# Postpartum Discharge Pregnancy-Related Deaths By Time Period, Florida, 2015 to 2019



Source: FL Maternal Mortality Review data

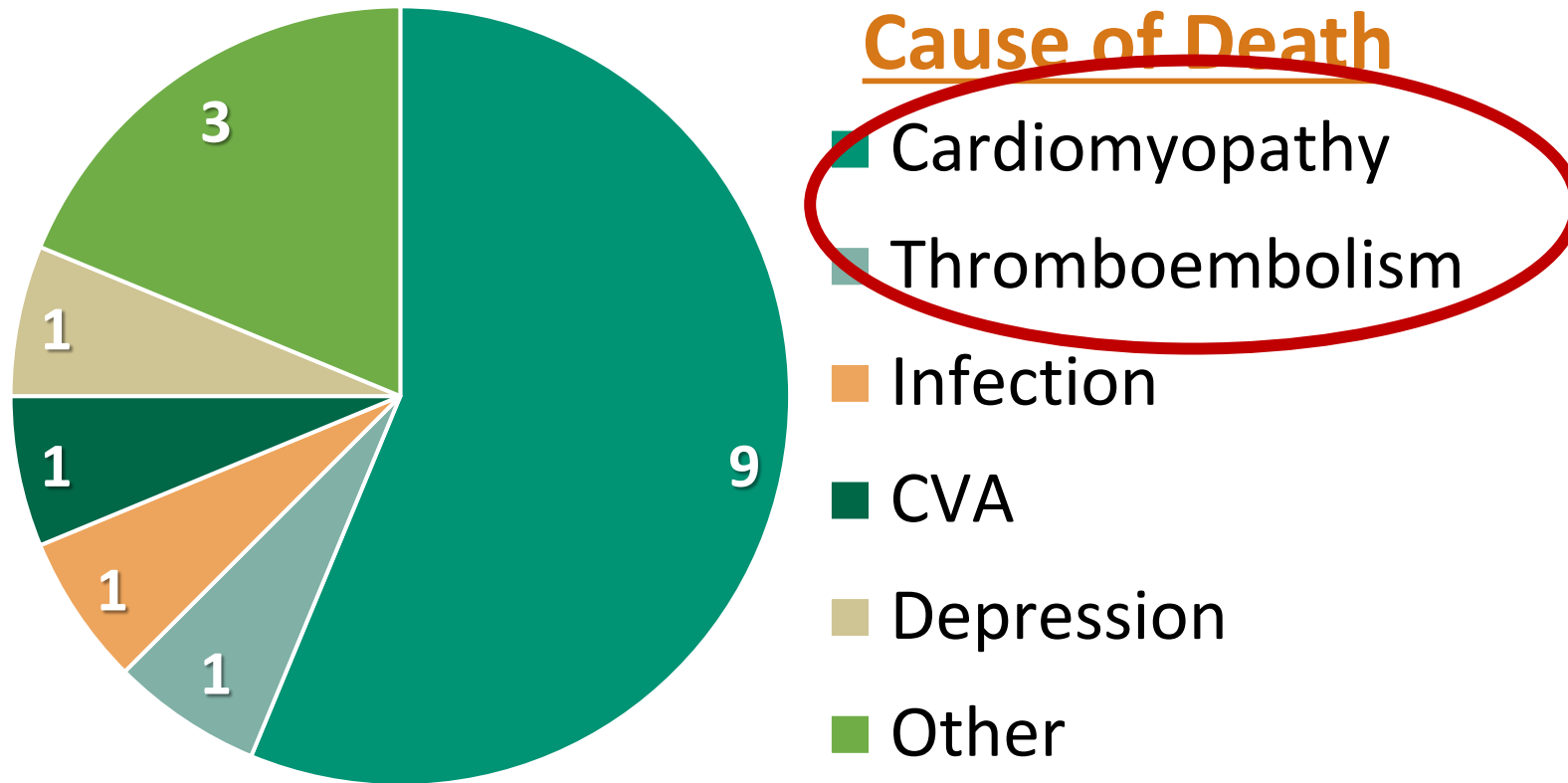
# Underlying Cause of Death for Less Than the First 60 Days Postpartum Discharge Pregnancy-Related Deaths By Time Period, Florida, 2015 to 2019



Source: FL Maternal Mortality Review data

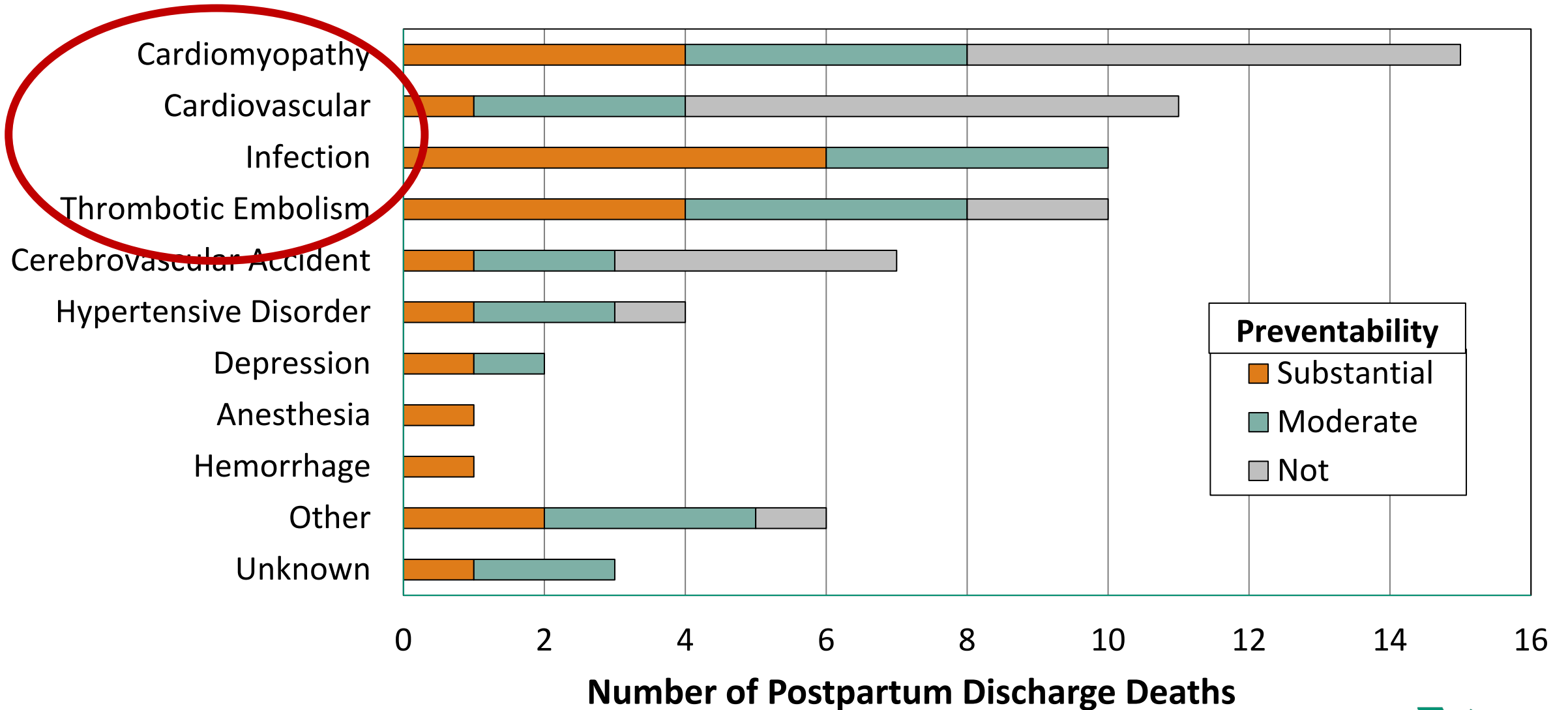


# Underlying Cause of Death for 60 or More Days Postpartum Discharge Pregnancy-Related Deaths By Time Period, Florida, 2015 to 2019

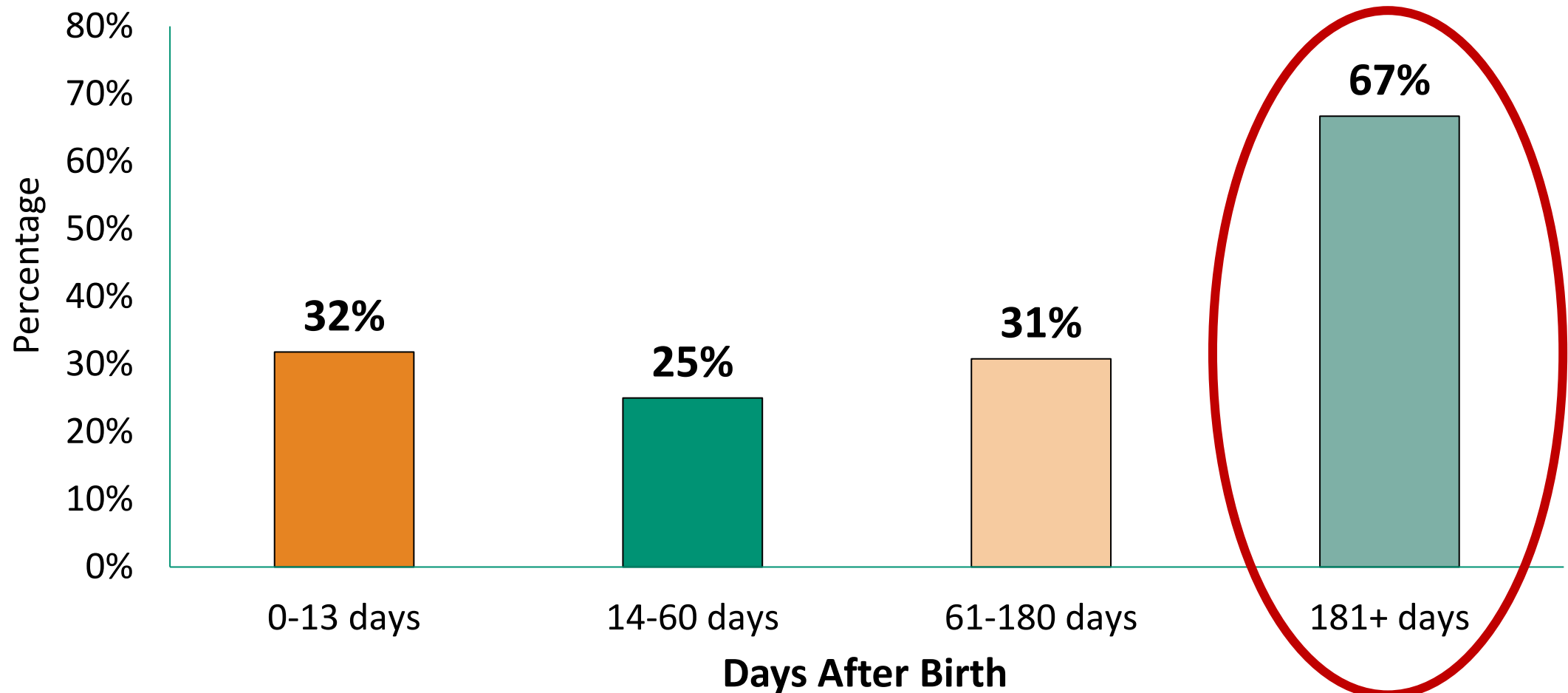


Source: FL Maternal Mortality Review data

# Postpartum Discharge Pregnancy-Related Deaths By Cause and Preventability, Florida, 2015 to 2019

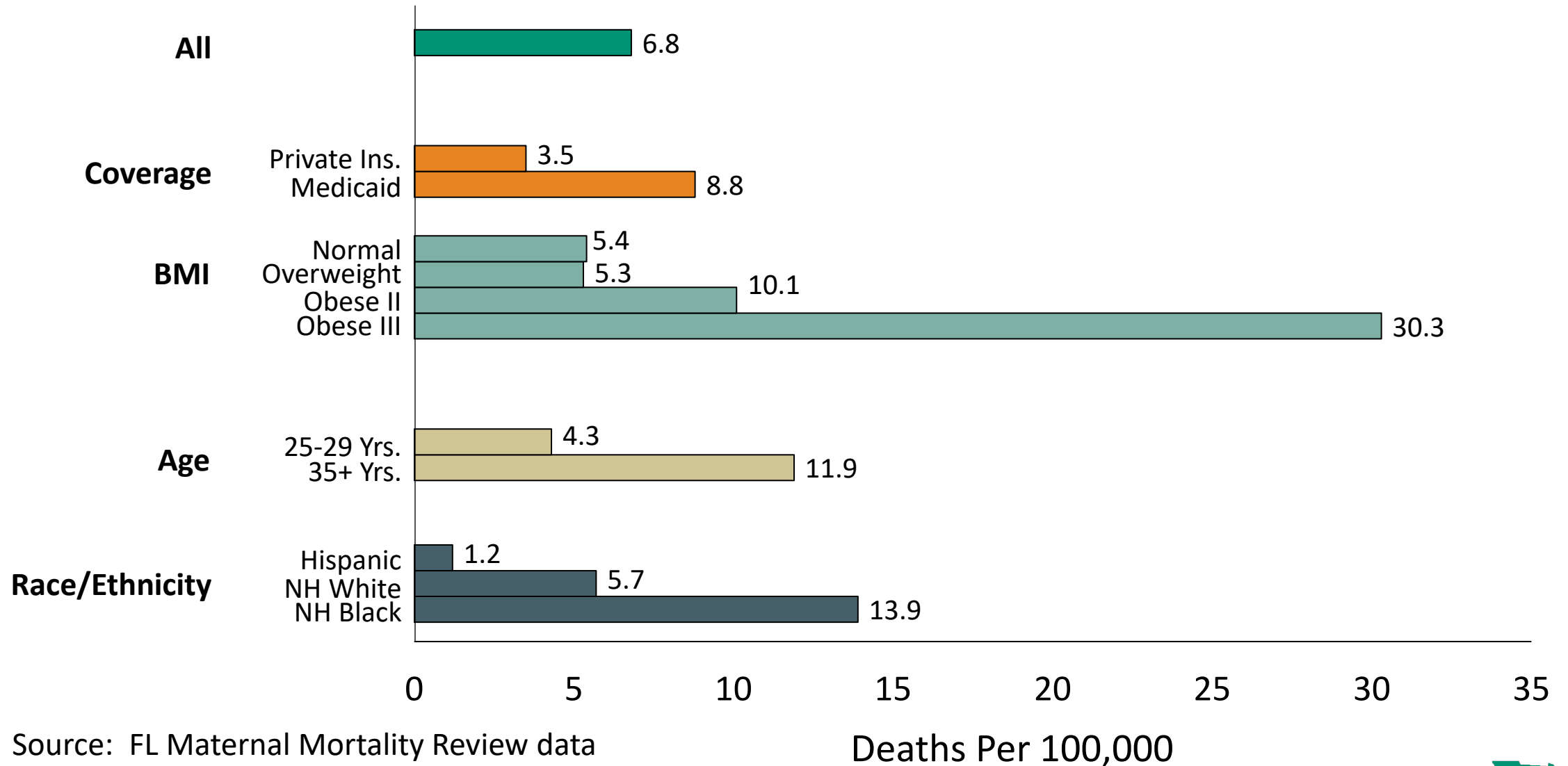


# Postpartum Discharge Pregnancy-Related Deaths with a Postpartum ED Visit, Florida, 2015 to 2019



Source: FL Maternal Mortality Review data

# Postpartum Discharge Pregnancy-Related Mortality Rates, Women at Risk, Florida, 2015 to 2019

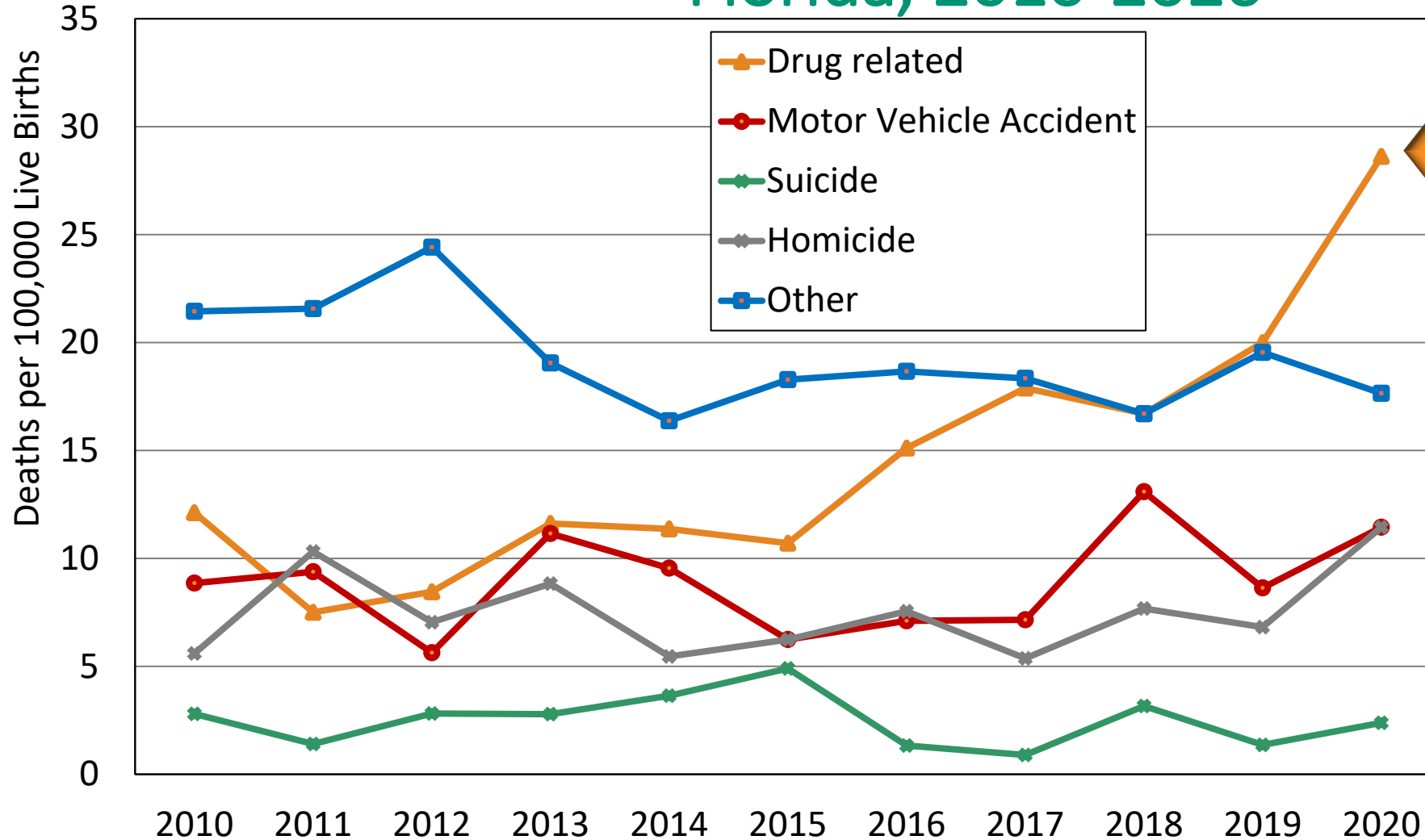


Source: FL Maternal Mortality Review data

Deaths Per 100,000

# Pregnancy-Associated Mortality Ratios by Cause of Death

## Florida, 2010-2020

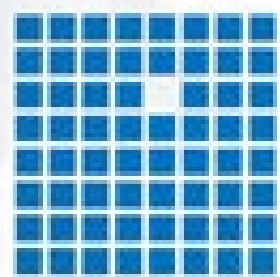


### Drug-Related Deaths:

- Leading cause; More than all pregnancy complications
- More than 75% die after discharge for delivery
- More likely to have had a prior standalone ER visit than other conditions

What are  
Emergency  
Medicine  
doctors  
doing about  
this?

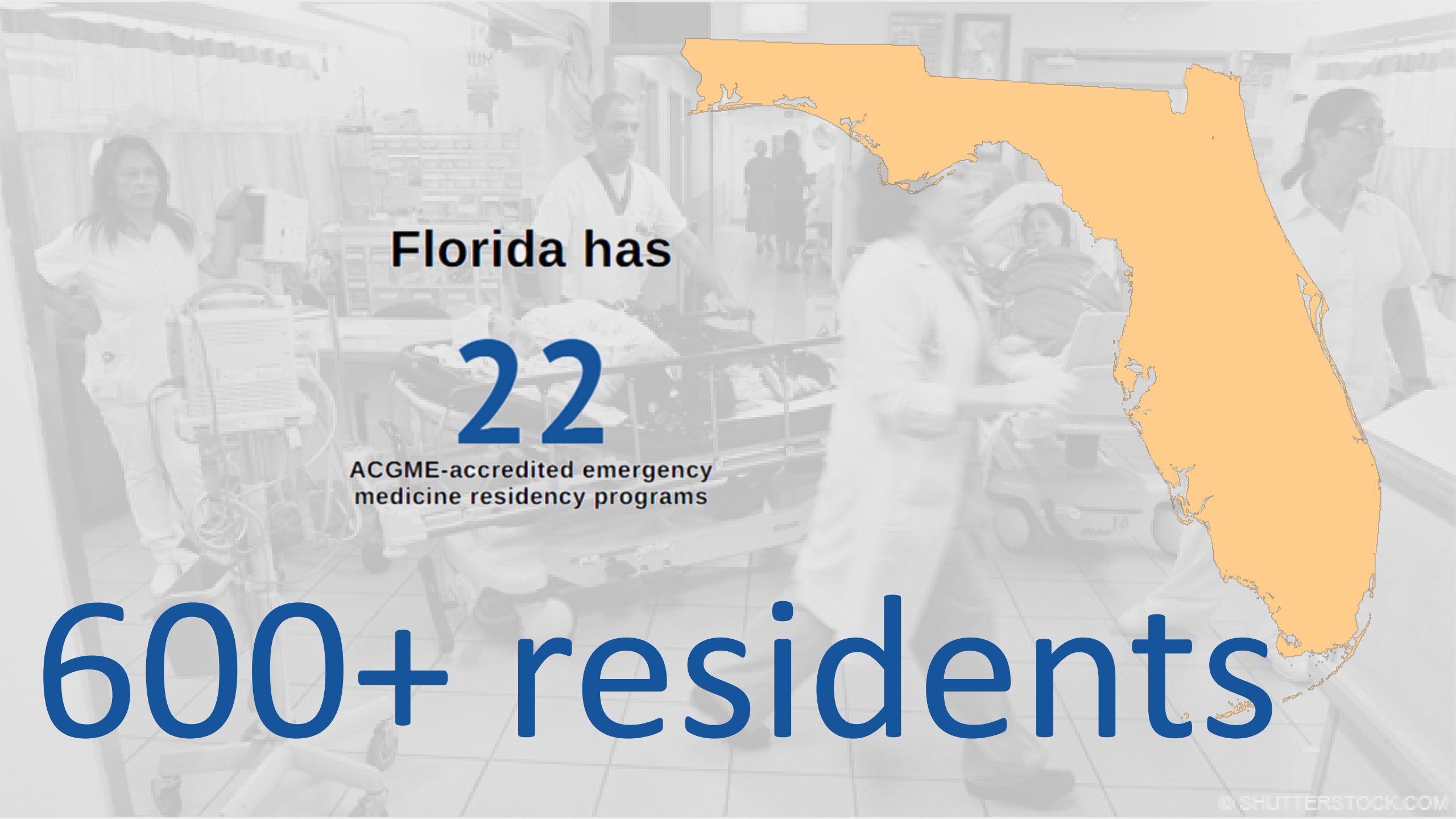




# American College of Emergency Physicians®

*ADVANCING EMERGENCY CARE* 

**There are no clinical policies from ACEP on care of  
postpartum patients**



**Florida has**

**22**

**ACGME-accredited emergency  
medicine residency programs**

**600+ residents**



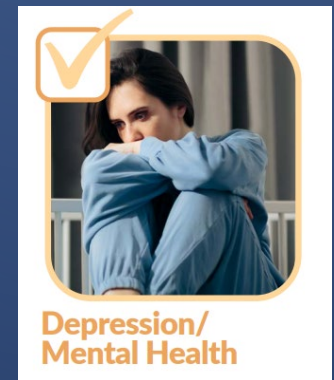
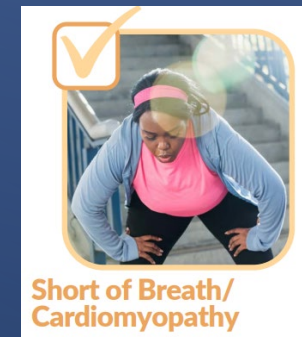
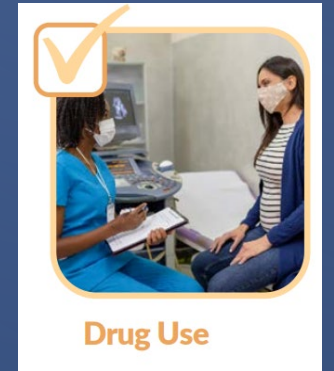
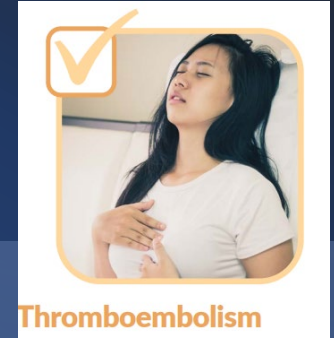
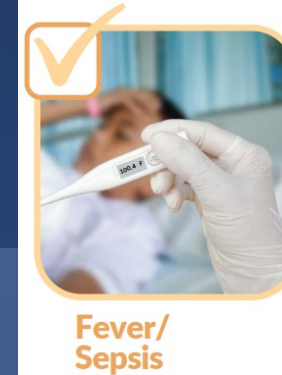
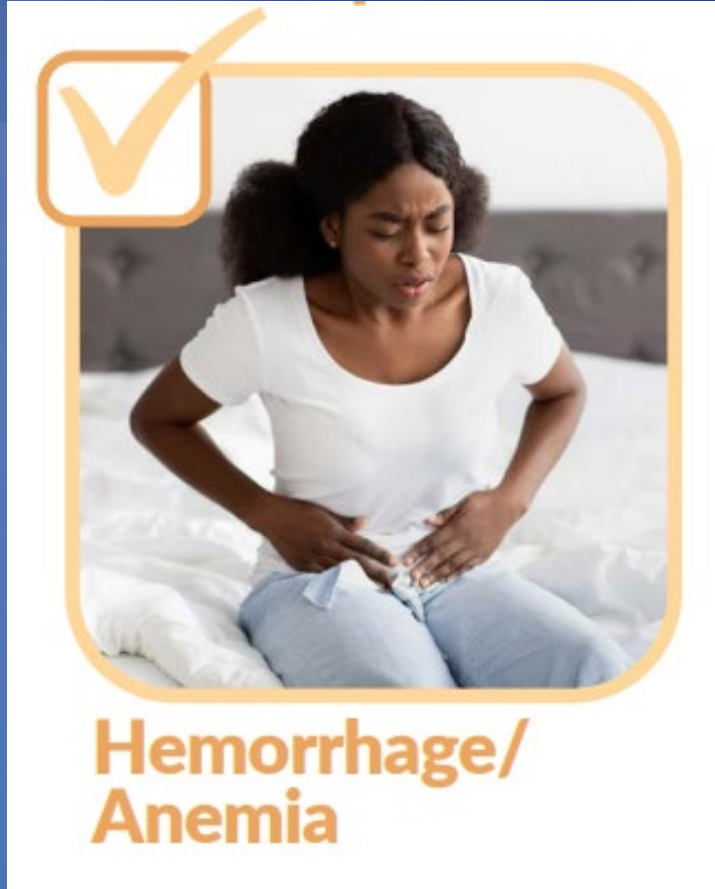


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## Model of the Clinical Practice

### 13.8 Postpartum Complications

- 13.8.1 Endometritis
- 13.8.2 Hemorrhage
- 13.8.3 Mastitis
- 13.8.4 Pituitary infarction



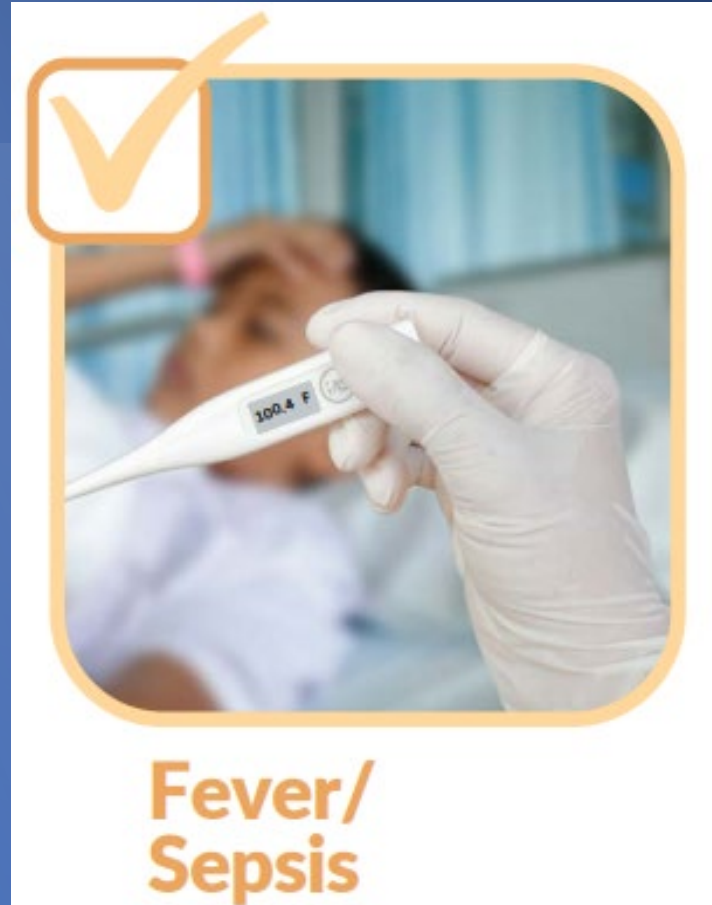


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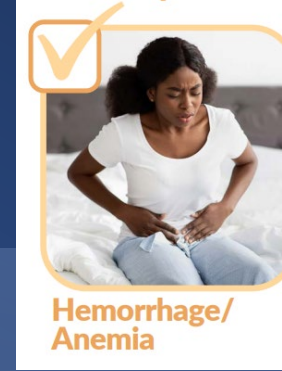
## Model of the Clinical Practice

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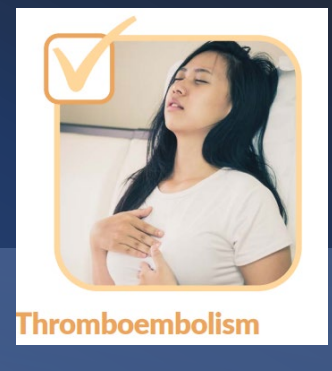
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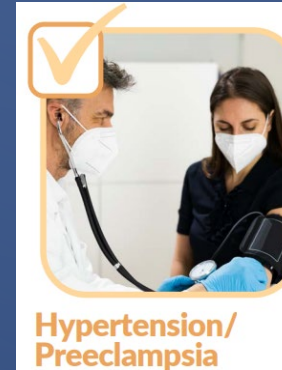
**Fever/  
Sepsis**



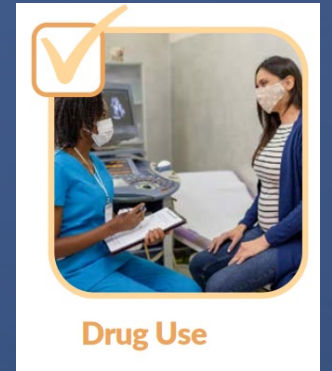
**Hemorrhage/  
Anemia**



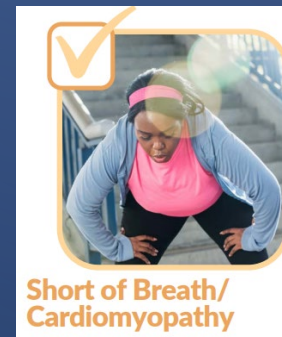
**Thromboembolism**



**Hypertension/  
Preeclampsia**



**Drug Use**



**Short of Breath/  
Cardiomyopathy**



**Depression/  
Mental Health**

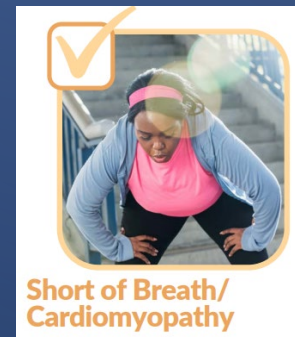
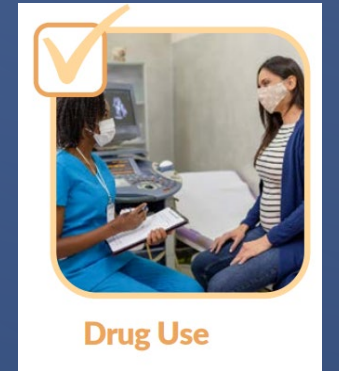
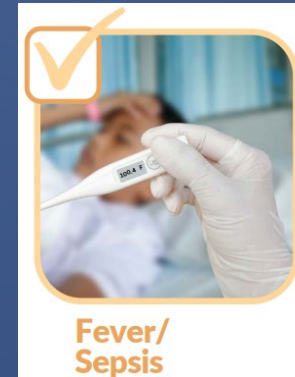
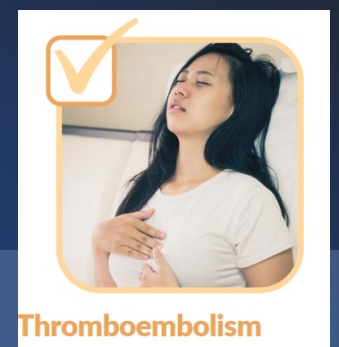
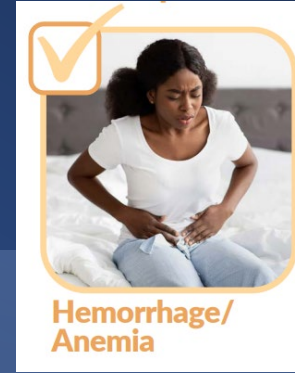
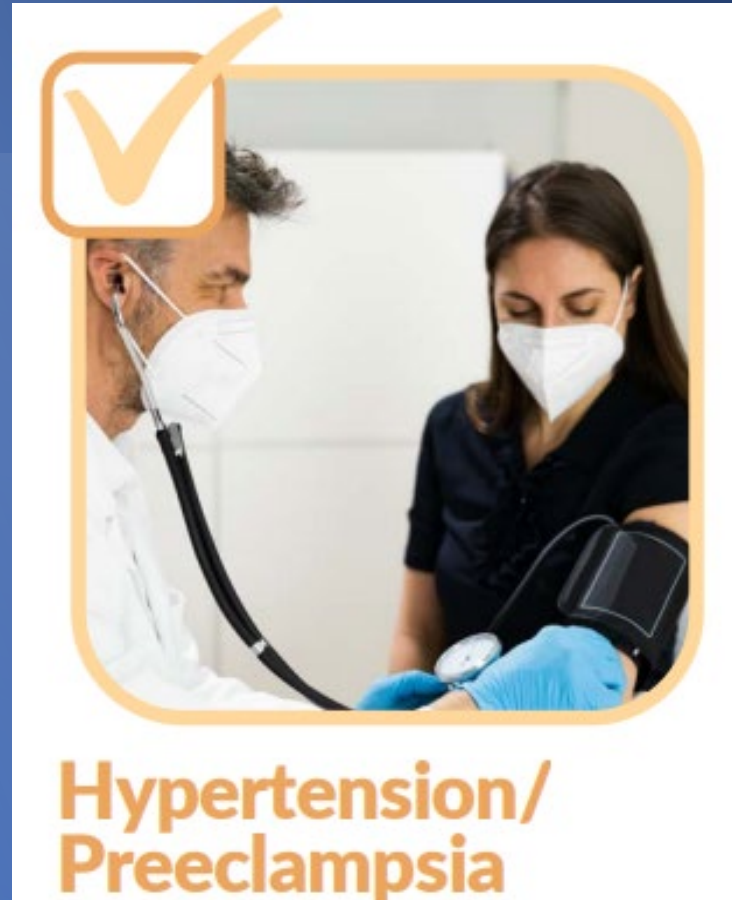


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## Model of the Clinical Practice

### 13.3 Complications of Pregnancy

- 13.3.1 Abortion
- 13.3.2 Ectopic pregnancy
- 13.3.3 Hemolysis, elevated liver enzymes, low platelets (HELLP) syndrome
- 13.3.4 Hemorrhage, antepartum
  - 13.3.4.1 Abruptio placentae (See 18.2)
  - 13.3.4.2 Placenta previa
- 13.3.5 Hyperemesis gravidarum
- 13.3.6 Gestational hypertension
  - 13.3.6.1 Eclampsia
  - 13.3.6.2 Preeclampsia
- 13.3.7 Infections
- 13.3.8 Rh isoimmunization





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## Model of the Clinical Practice

### 3.5 Diseases of the Myocardium, Acquired

#### 3.5.1 Cardiac failure

3.5.1.1 Cor pulmonale

3.5.1.2 High output

3.5.1.3 Low output

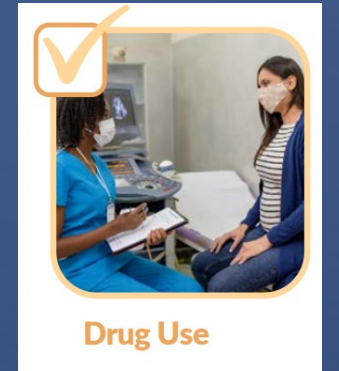
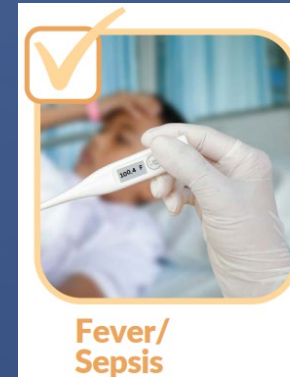
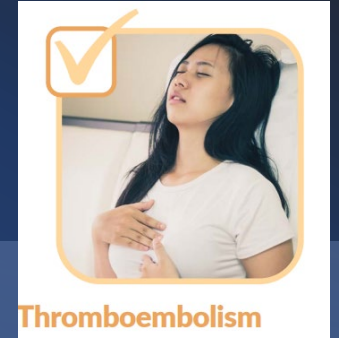
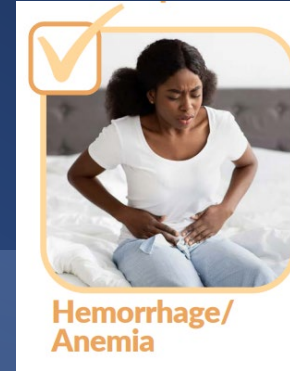
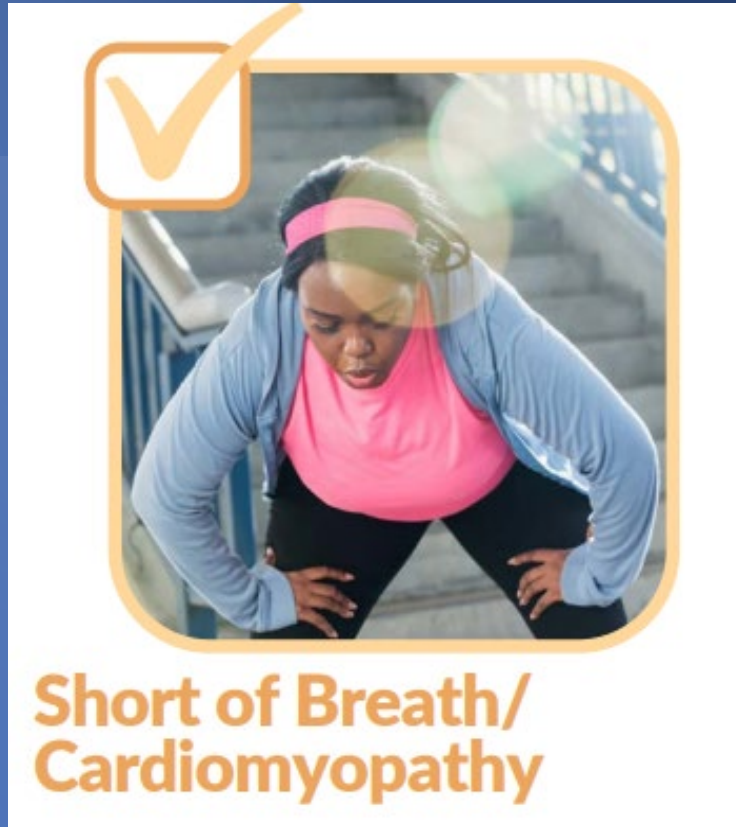
#### 3.5.2 Cardiomyopathy

3.5.2.1 Hypertrophic

3.5.2.2 Dilated

3.5.2.3 Takotsubo

*No mention of  
postpartum  
cardiomyopathy!!*





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## Model of the Clinical Practice

### 16.6 Pulmonary Embolism/Infarct

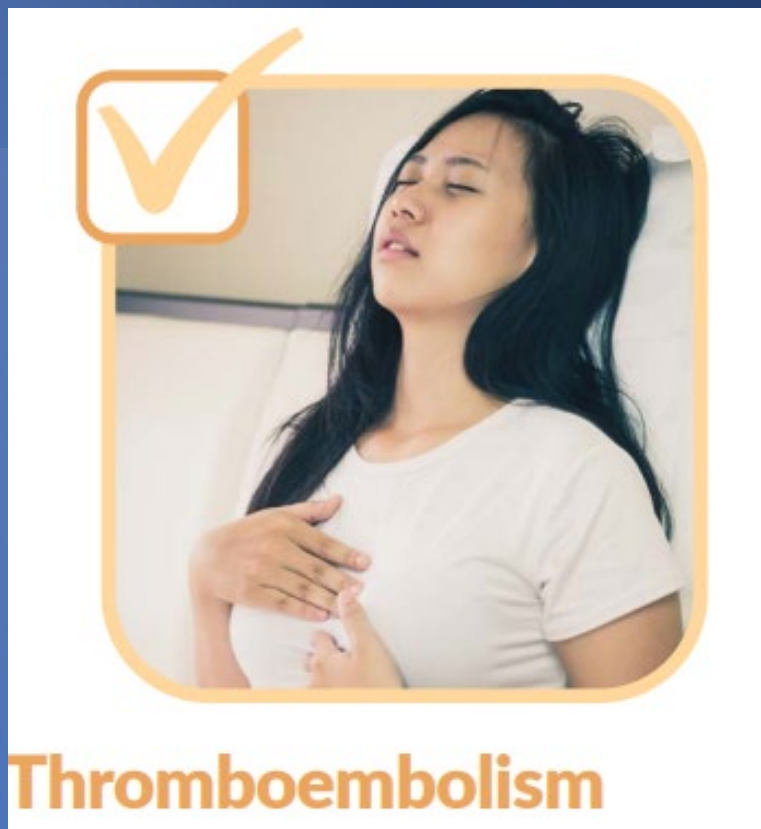
16.6.1 Septic emboli

16.6.2 Venous thromboembolism (See 3.3.2.1)

16.6.2.1 Massive and submassive embolism

16.6.3 Fat emboli

*No mention of  
postpartum patients  
being increased risk!!*



## Thromboembolism



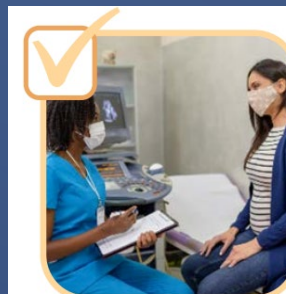
Hemorrhage/  
Anemia



Short of Breath/  
Cardiomyopathy



Fever/  
Sepsis



Drug Use



Hypertension/  
Preeclampsia



Depression/  
Mental Health



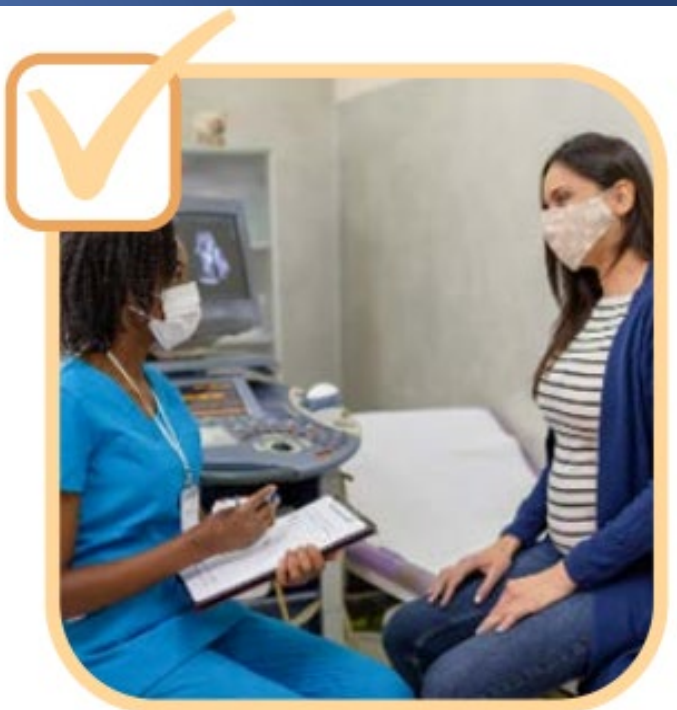
American Board of  
Emergency Medicine

## Model of the Clinical Practice

### 14.1 Substance Use Disorders

- 14.1.1 Alcohol use disorder (See 17.1.1)
- 14.1.2 Illicit drug use
- 14.1.3 Prescription drug use
  - 14.1.3.1 Drug diversion
- 14.1.4 Tobacco use disorder
- 14.1.5 Withdrawal syndromes
- 14.1.6 Opioid use disorder (See 17.1.2.3)
- 14.1.7 Stimulant use disorder
- 14.1.8 Medication for substance use disorder

*No mention of  
postpartum patients  
being increased risk!!*



**Drug Use**



**Hemorrhage/  
Anemia**



**Short of Breath/  
Cardiomyopathy**



**Fever/  
Sepsis**



**Thromboembolism**



**Hypertension/  
Preeclampsia**



**Depression/  
Mental Health**



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## Model of the Clinical Practice

### 14.2 Mood Disorders and Thought Disorders

- 14.2.1 Acute psychosis
- 14.2.2 Bipolar disorder
- 14.2.3 Depression
  - 14.2.3.1 Suicidal risk
- 14.2.4 Grief reaction
- 14.2.5 Schizophrenia

*No mention of  
postpartum depression  
or psychosis!!*



**Depression/  
Mental Health**



**Hemorrhage/  
Anemia**



**Short of Breath/  
Cardiomyopathy**



**Fever/  
Sepsis**



**Thromboembolism**



**Hypertension/  
Preeclampsia**



**Drug Use**

What is  
FPQC doing  
about this?





# Postpartum ED Care—Mortality Prevention

***Emergency Department care can prevent some postpartum deaths based on Florida Maternal Mortality Review Findings***

Ask women ages 15-45 years if they have been pregnant in the past year?

If yes, add postpartum complications to your differential

Check for early postpartum warning signs and their medical problem list

If needed, review postpartum checklist & management guidelines

If unsure, seek OB consultation early

If discharged, arrange referral and educate when to return

# Pregnant in the past year?



## Other Diagnoses to Consider



# Postpartum Reminder—Educational QR Codes

**Pregnant in the past year?**

**Other Diagnoses to Consider**

- Short of Breath/  
Cardiomyopathy
- Hypertension/  
Preeclampsia
- Fever/  
Sepsis
- Thromboembolism
- Hemorrhage/  
Anemia
- Depression/  
Mental Health
- Drug Use

For more information scan the QR codes, or go to [www.fpqc.org/pacc](http://www.fpqc.org/pacc)

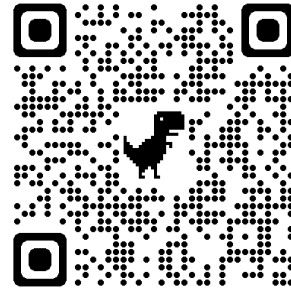
**PACC**  
POSTPARTUM ACCESS & CONTINUITY OF CARE

**FPQC**

## Post Poster/Flyer in Visible Locations

- Educational poster for ER Team
- Reminds to ask: “Pregnant in the last year?”
- Provides a postpartum condition checklist
- Provides QR code links to brief care education and management guidelines

Preventing Maternal Mortality -  
Training for Hospital Emergency  
Departments Webinar  
June 7, 2023.



**FMA**  
FLORIDA MEDICAL ASSOCIATION



Only 46  
views



# Hierarchy of Effectiveness

**Pregnant in the past year?**

**Other Diagnoses to Consider**

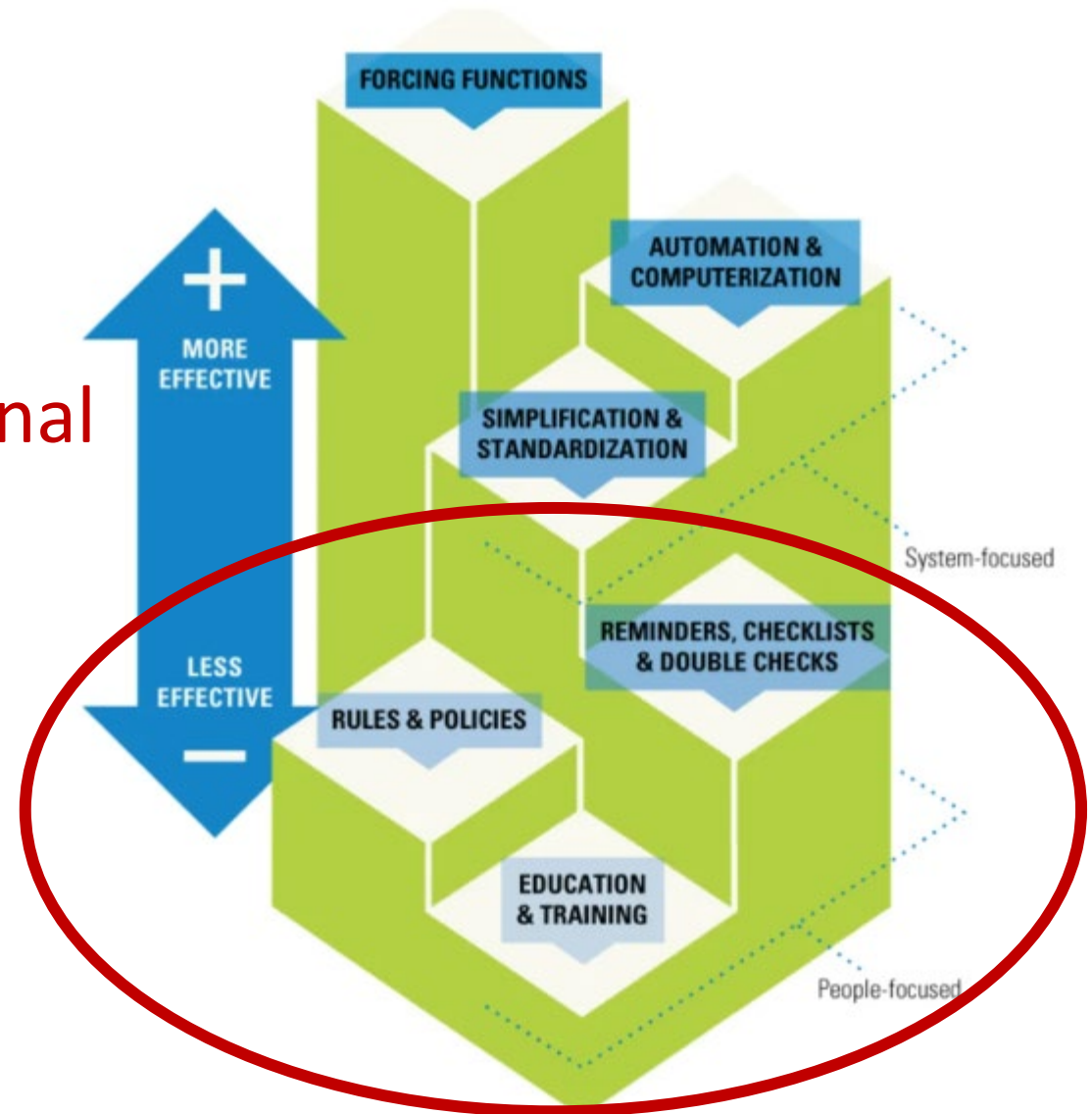
- Short of Breath/ Cardiomyopathy
- Hypertension/ Preeclampsia
- Fever/ Sepsis
- Thromboembolism
- Hemorrhage/ Anemia
- Depression/ Mental Health
- Drug Use

For more information scan the QR codes, or go to [www.fpqc.org/pacc](http://www.fpqc.org/pacc)

**PACC** POSTPARTUM ACCESS & CONTINUITY OF CARE

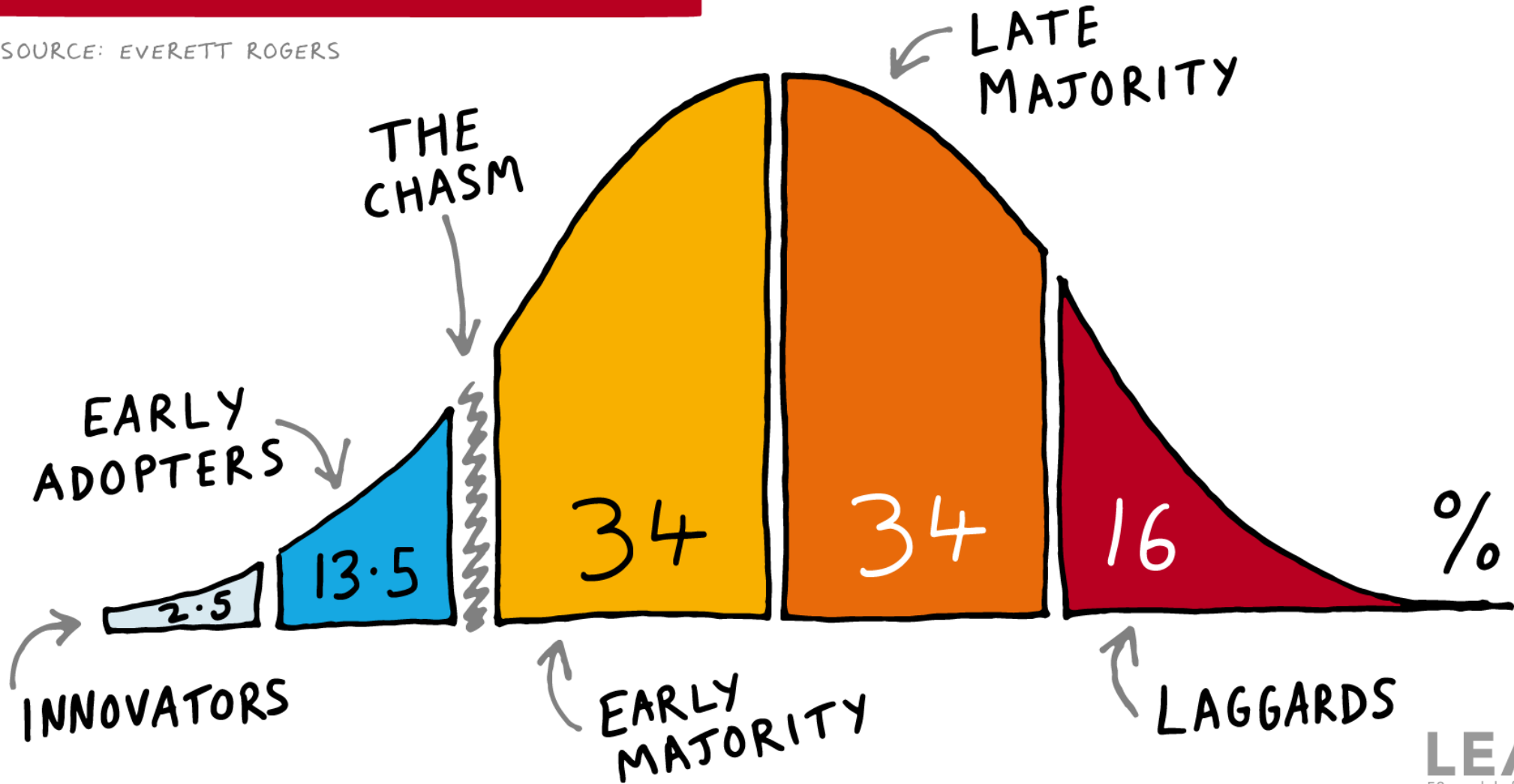
**FPQC**

Educational Reminds checklist



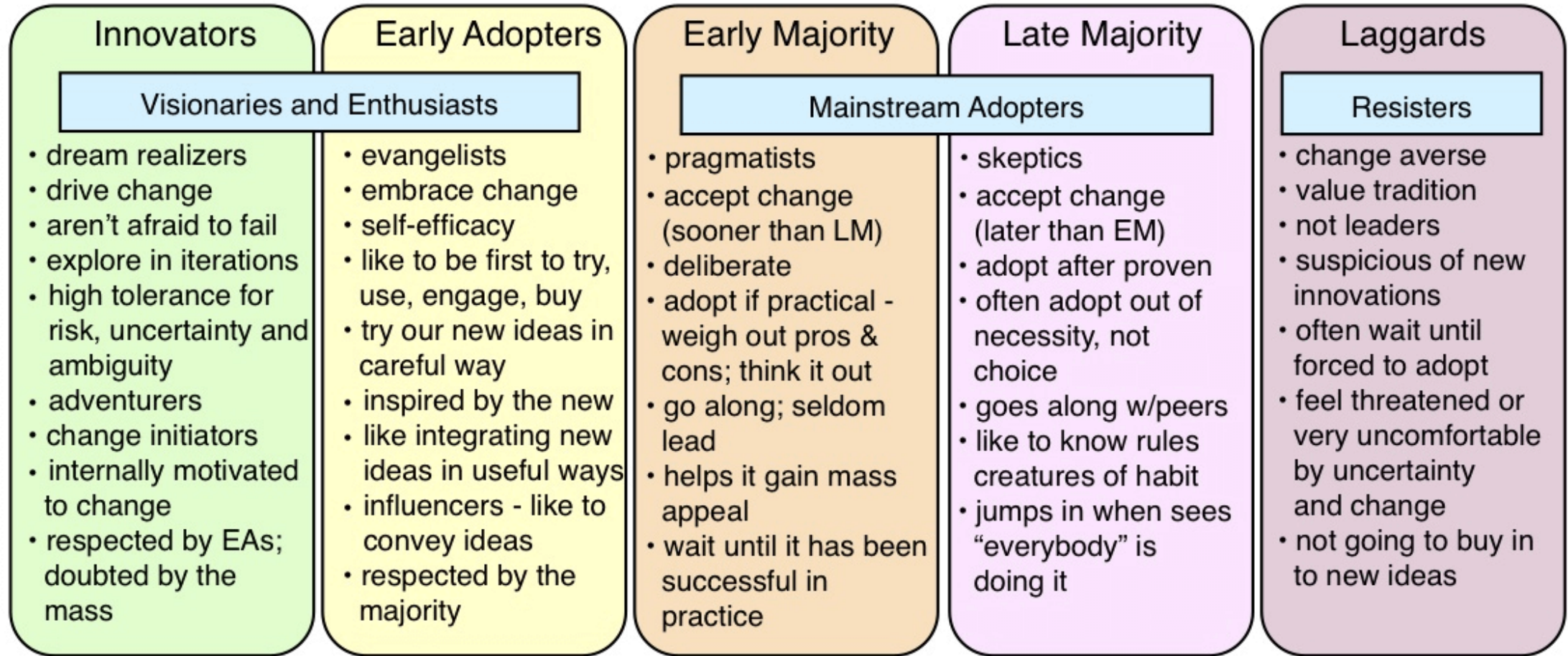
# DIFFUSION OF INNOVATION

SOURCE: EVERETT ROGERS



**LEAD**  
50 models for success

# Characteristics: Innovators to Laggards



Characteristics Image by The Center for Creative Emergence 2011

Main Sources: Diffusion of Innovation by Everett Rogers

Crossing the Chasm by Geoffrey Moore

Decades of research indicate that people consider five things when deciding whether or not to use an innovation.



**RELATIVE ADVANTAGE**  
Is it clearly better than what I am using now?





# Important Steps that Hospitals Can Take...

Post the Postpartum  
ER poster(s) for ER  
physicians & staff to  
see

“Add, pregnant in the  
last year?” to your  
hospital EHR & triage  
systems

Have a standard ER  
protocol or  
arrangement to  
assure timely OB  
consultations

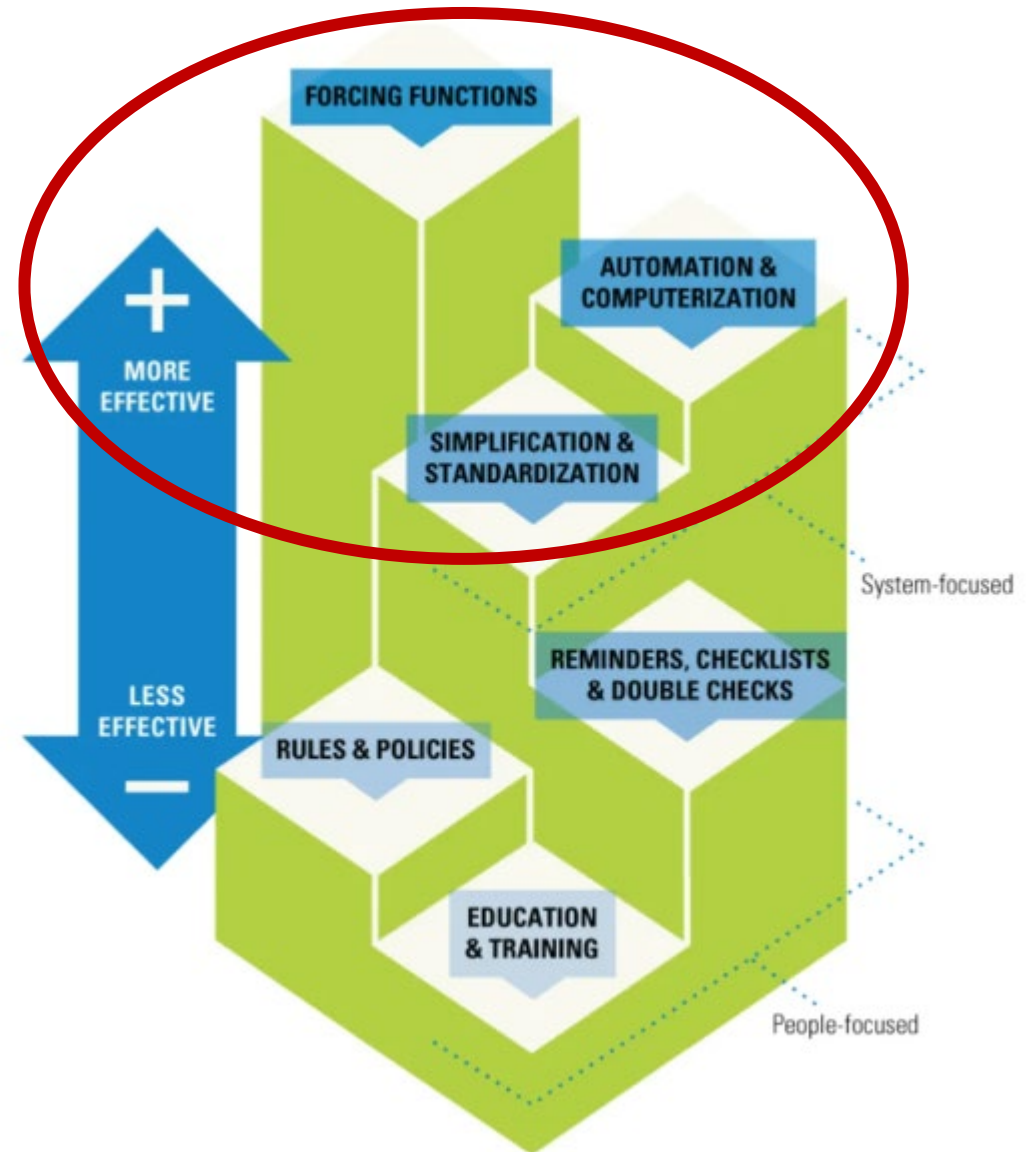
*“And, assure annual pregnancy & postpartum training for ER  
physicians, nurses & staff”*

# Important Steps that Hospitals Can Take...

Post the Postpartum ER poster(s) for ER physicians & staff to see

“Add, pregnant in the last year?” to your hospital EHR & triage systems

Have a standard ER protocol or arrangement to assure timely OB consultations

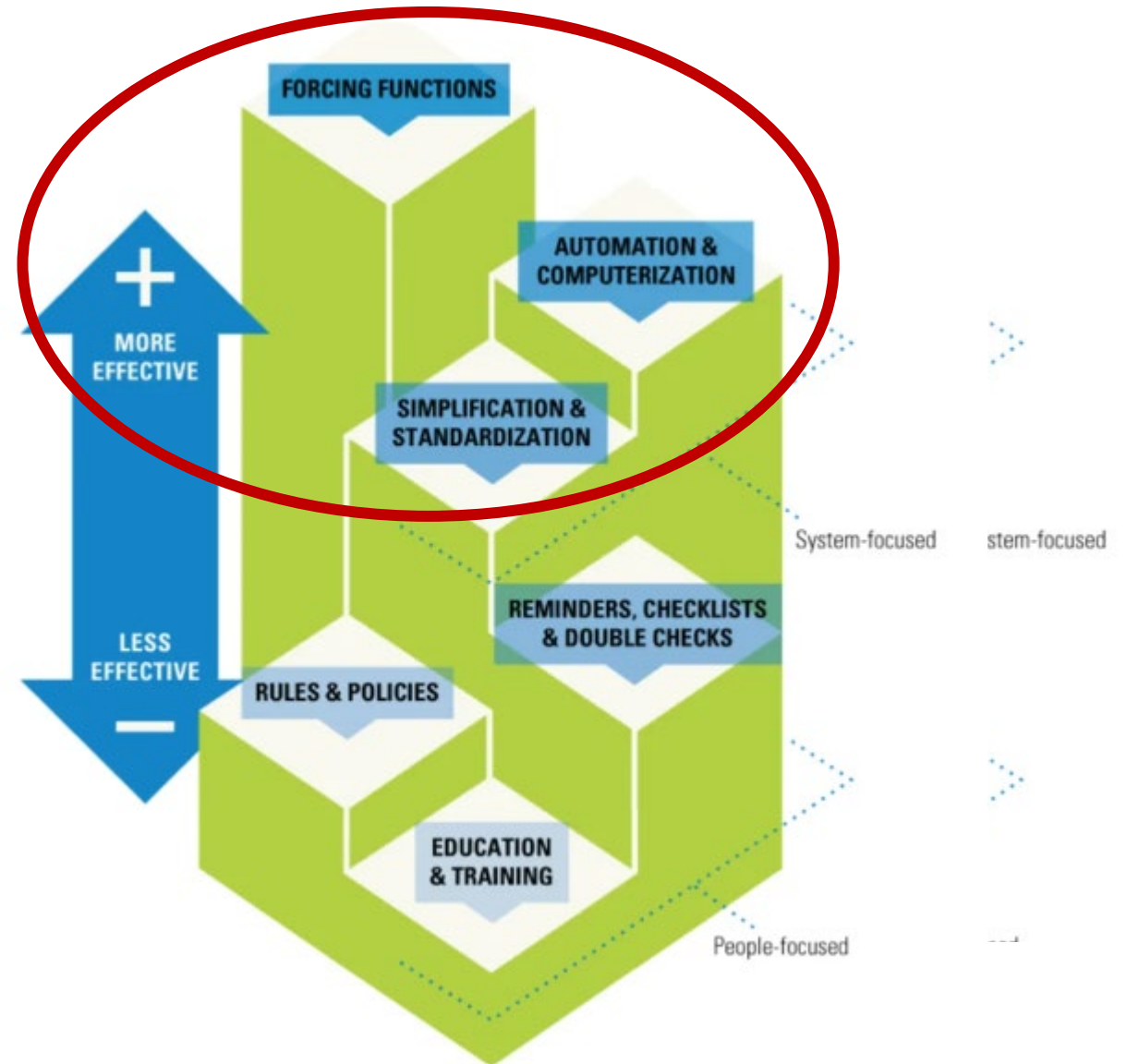


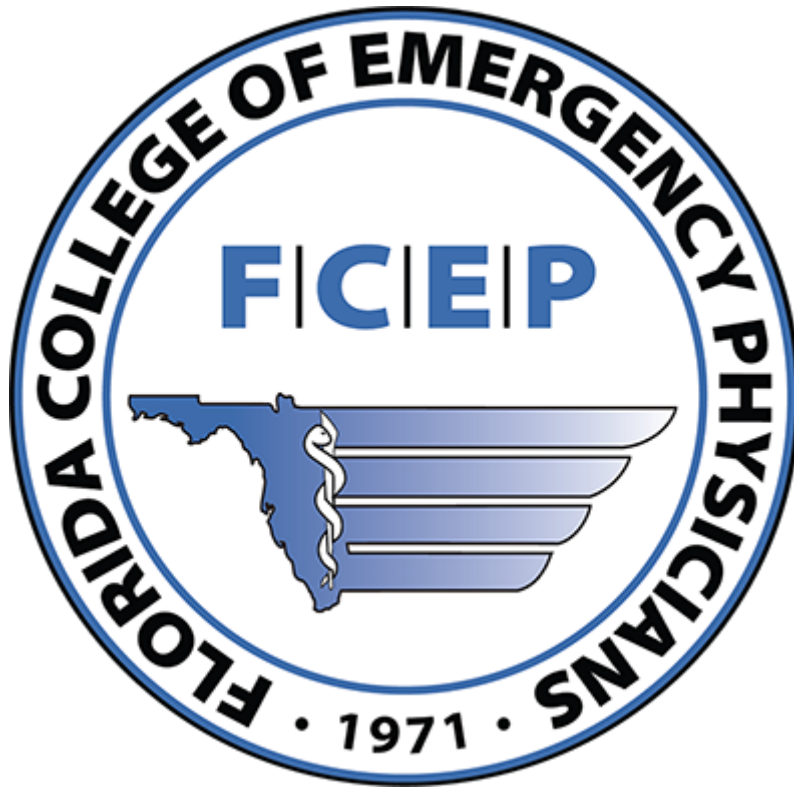
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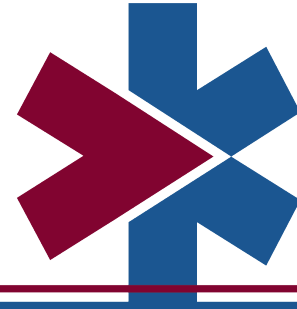


**ENA**

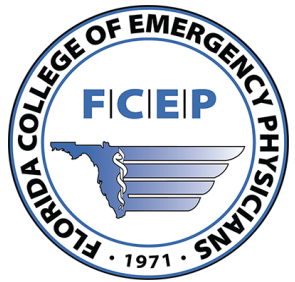
Florida State Council

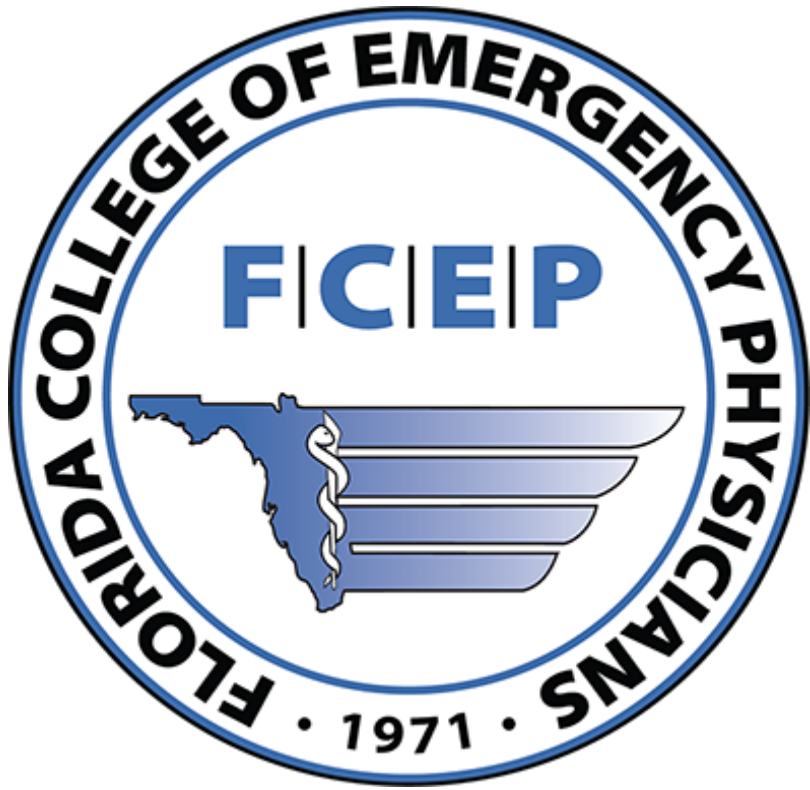


E | M | L | R | C



LIFESAVING EDUCATION FOR LIFESAVERS





# EMpulse


Official Publication of the Florida College of Emergency Physicians  
A Chapter of the American College of Emergency Physicians

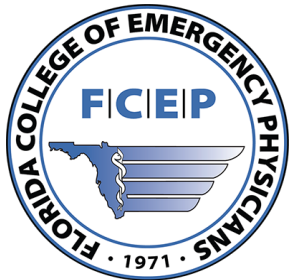
FCEP x FEIMF

## Symposium by the Sea 2023

THE ANNUAL MEETING OF THE FLORIDA COLLEGE OF EMERGENCY PHYSICIANS

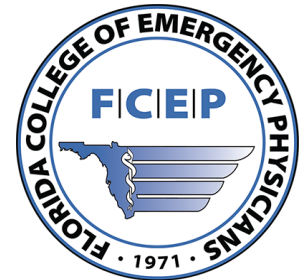
**SAVE THE DATE:**  
August 3-6, 2023  
Hyatt Regency Coconut Point  
Bonita Springs, FL





# ENA

# Florida State Council





# FPQC Quality Improvement Training

- Identifying the problem
- Developing process maps
- Creating key driver diagrams
- Understanding types of data and determining measures
- Prioritization matrices
- Generating solutions and sustaining change
- Understanding variation and creating PDSA cycles



<https://www.youtube.com/watch?v=IF74XafcXz8&t=93s>





- Engage/collaborate with
  - Medical director
  - Nurse Manager
  - Residency Director (if applicable)
- YOU provide the education
- Share success stories
- Measure something!
- Save lives!!