CMEO BriefCase

Addressing Maternal Health Disparities: Changes You Can Make to Your Practice

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Learning Objective

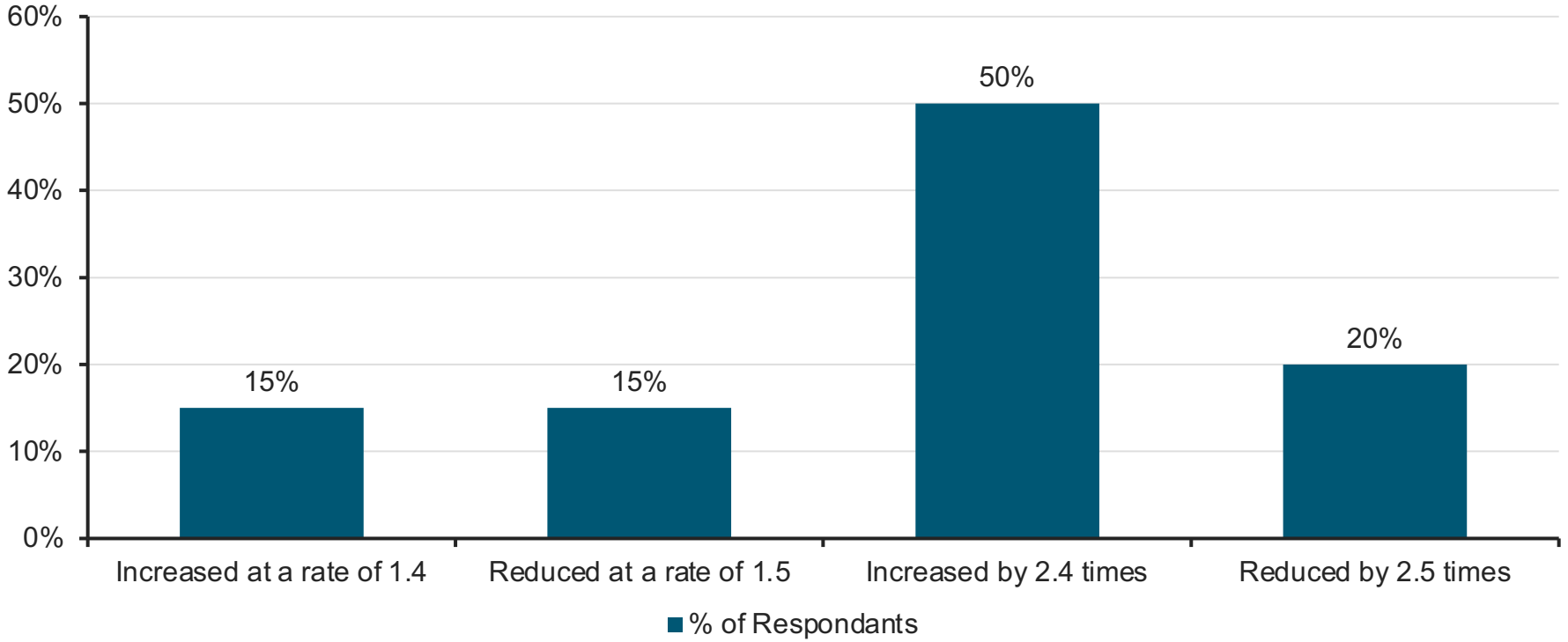
Assess perinatal health and safety to reduce the risk of maternal morbidity and mortality in pregnant women of color

Audience Response

In the U.S., how has the maternal mortality rate changed in the last three decades?

a) Increased at a rate of 1.4
b) Reduced at a rate of 1.5
c) Increased by 2.4 times
d) Reduced by 2.5 times

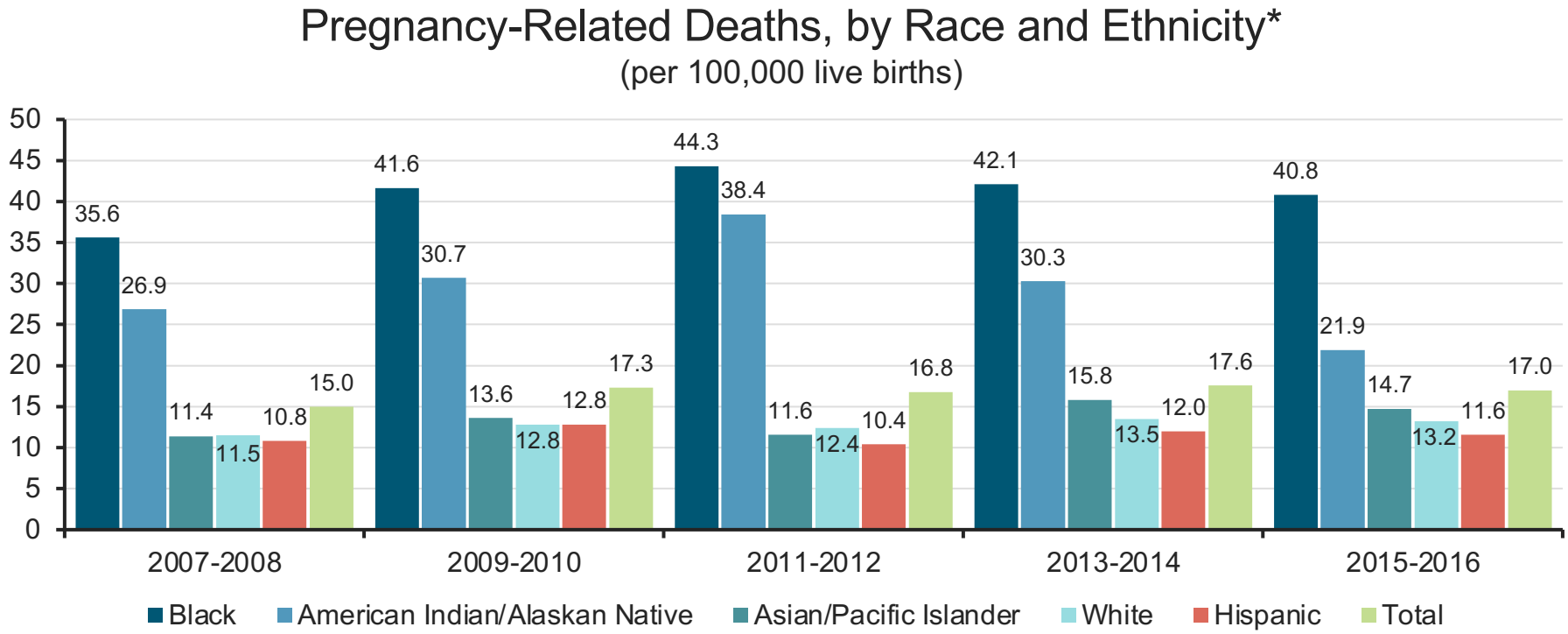
In the U.S., how has the maternal mortality rate changed in the last three decades?



Results recorded on December 2, 2021.

Maternal Mortality: The Color of Risk

United States nearly **DOUBLE** mortality rate of other wealthy, industrialized nations

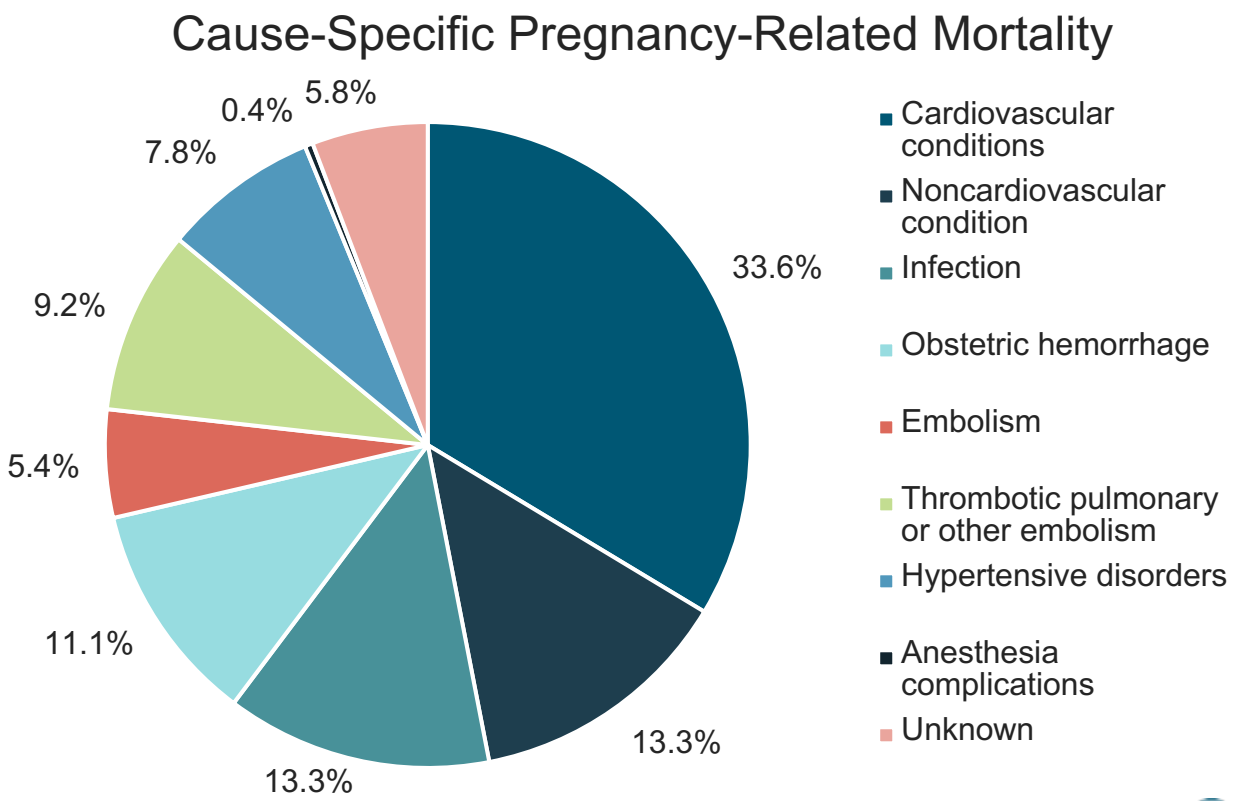


*National averages, rates may vary in areas with specific populations, such as Puerto Rico and New York City (NYC).

Petersen EE, et al. *MMWR Morb Mortal Wkly* Rep. 2019;68:762-765.

Maternal Mortality Causes

- Obstetric deaths result from complications of pregnancy, labor, or postpartum period
- Black women less likely to receive prenatal care than White women (20.8% vs. 39.4%)[1]
- Hispanic women in NYC 3x more likely than White women to suffer pregnancy-related mortality[2]

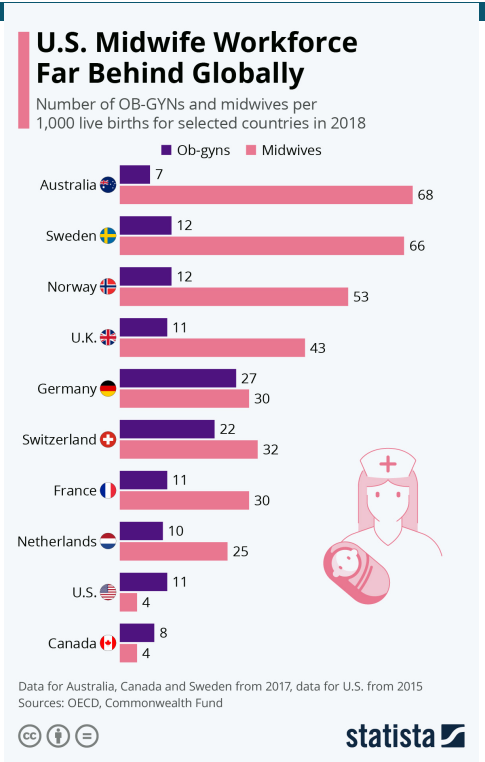


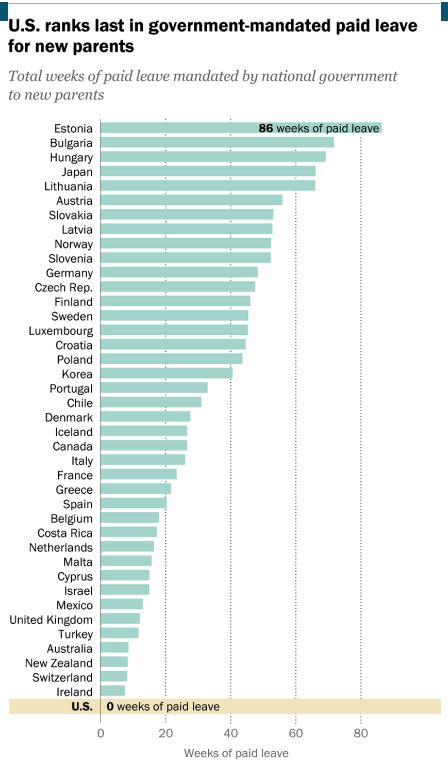
1. Petersen EE, et al. *MMWR Morb Mortal Wkly* Rep. 2019;68:762-765. 2. Howell EA. *Clin Obstet Gynecol*. 2018;61(2):387-399.

Factors Linked to Maternal Mortality

- Women who need c-sections should have access, but rapidly rising rates must be stopped[1]
- OBGYN resident physician diversity still lags the changing U.S. demographic characteristics[2]
- Black people have the highest rates of severe maternal mortality in each pregnancy period compared to people from other racial and ethnic groups[3]

ACTION ITEM: Community-based models improve maternal health outcomes and promote health equity.[4] Find partners.





1.International Federation of Gynecology and Obstetrics (FIGO) Position Paper. *C-Sections: How to stop the epidemic.* FIGO Website. 2022. https://www.figo.org/news/c-sections-how-stop-epidemic. Accessed February 25, 2022. 2. Lopez CL, et al. *JAMA Netw Open.* 2021;4:e219219. 3. Admon LK, et al. *JAMA Netw Open.* 2021;4(12):e2137716. 4. Zephyrin L, et al. *Community-based models to improve maternal health outcomes and promote health equity.* Commonwealth Fund Website. 2021. https://www.commonwealthfund.org/publications/issue-briefs/2021/mar/community-models-improve-maternal-outcomes-equity. Accessed February 25, 2022. Images: Statista.com https://www.statista.com/chart/23559/midwives-per-capita/. Accessed February 25, 2022. Livingston G, Thomas D. *Among 41 countries, only U.S. lacks paid parental leave.* Pew Research Center Website. 2019. https://www.pewresearch.org/fact-tank/2019/12/16/u-s-lacks-mandated-paid-parental-leave/. Accessed February 25, 2022.

CME OUTFITTERS

Root Causes: HCP Bias and Structural Racism

- HCP implicit/unconscious biases[1-2]
  - Lack of awareness of disparities, risk burdens, comorbidities, or recognition of affected populations
  - Take IAT to assess your own biases[3]
- Pain care disparities/concerns ignored[4]
- Lack of HCP diversity
  - Cultural humility, language-concordant care[5]

HCP = Health care professional. IAT = Implicit Association Test.

1. Nelson A. *J Natl Med Assoc*. 2002;94(8):66. 2. Oxtoby K. *BMJ*. 2020;371:m4152. 3. Project Implicit Website. 2011. https://implicit.harvard.edu/implicit/takeatest.html. Accessed February 25, 2022. 4. Ghoshal M. *Pract Pain Manag*. 2020;20(5)-5. 5. Karliner, et al. *Health Serv Res*. 2007;42(2):727-754.

Race-Based Birthing: VBAC Score

Live births by cesarean method[1]				
	All women	Ages 30-34	Ages 35-39	Ages 40-54
Non-Hispanic White	30.8%	32.0%	38.2%	46.2%
Hispanic	31.6%	36.1%	41.6%	47.7%
Non-Hispanic Black	36.1%	40.6%	47.1%	54.0%

- Vaginal Birth after Cesarean (VBAC): race and ethnicity as risk factor in childbirth calculator[1]
  - Perceived risk after previous cesarean birth
  - Increased cesarean births in minority women
  - Studies omitting variable found VBAC score unrelated to race[2]
- Factors in VBAC correlating with success[3]
  - Delivery method history
  - Marital status
  - Insurance

Race is not genetic/biological but a social construct. Think about how society reacts to skin of color and how that impacts health.

1. Martin JA, et al. *Natl Vital Stat Rep*. 2019;68(13):1-47. 2. Vyas DA, et al. *Womens Health Issues.* 2019;29(3):201-204. 3. Landon MB, et al. *Am J Obstet Gynecol.* 2005;193:1016-1023.

Audience Response

What is the leading cause of maternal death among Black women?

a) Pulmonary and obstetric embolism
b) Sepsis and infection
c) Eclampsia and pre-eclampsia
d) Postpartum cardiomyopathy

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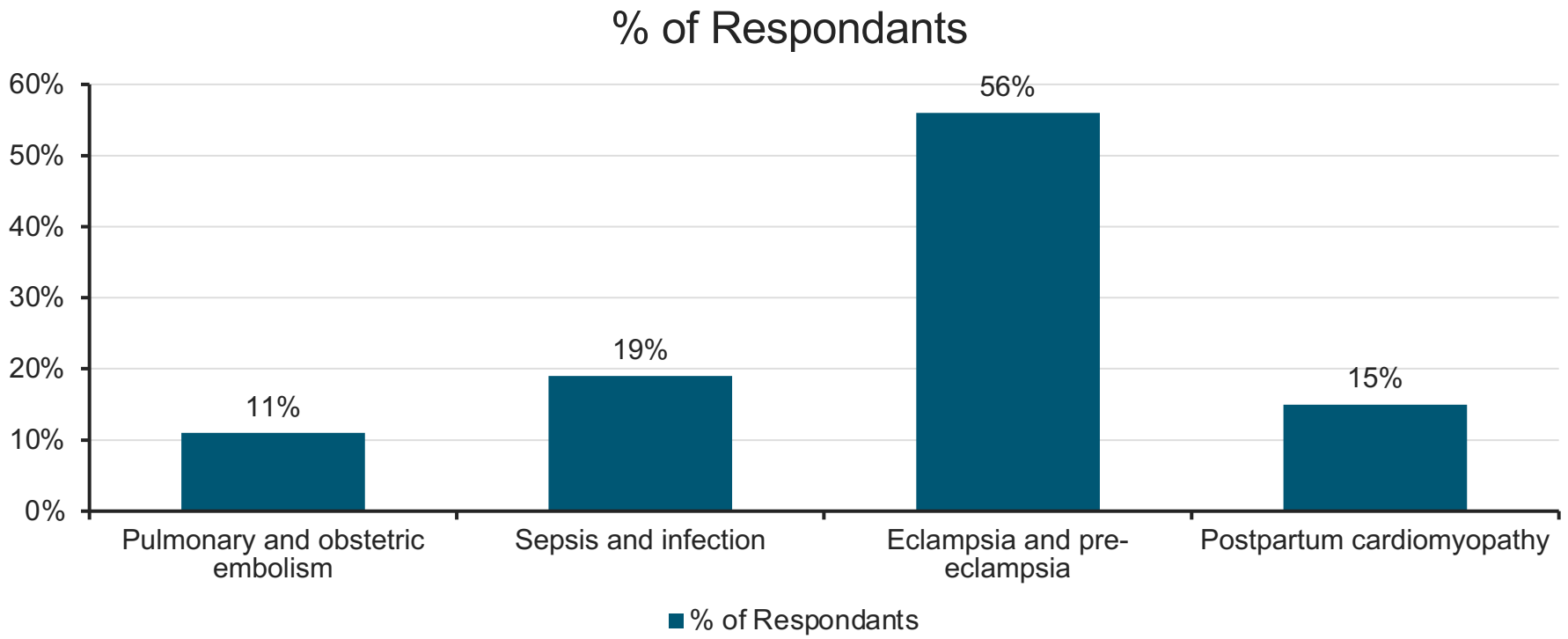


Results recorded on December 2, 2021.

Patient Cases

Patient Case: Mrs. Adah Faye

- 34 YO woman of African descent; G3, P1
- Medical history: Gestational diabetes, overweight, BMI > 28, occasional HTN
- Hypertensive 3rd trimester of pregnancy
- Previous C-section: still-birth; vaginal delivery: live birth
- Presents in early stages of labor
- Medications:
  - None
  - Patient reports taking prenatal vitamins regularly

BMI = Body mass index. C-section = Cesarean section. G = Gravida (number of pregnancies). HTN = Hypertension. P = Para (number of births of viable offspring). YO = Year old.

Patient Case: Adah Faye, cont.

- OB applies VBAC score to decide C-section delivery and epidural placed
- Mrs. Faye reports feeling severe pain and discomfort
  - Anesthesiologist and nurse insist “epidural will work” and encourage OB to move ahead
- Delivery complications:
  - Anesthetic complications
  - Hemorrhage
  - BP notably spikes during and after C-section

BP = Blood pressure. OB = Obstetrician.

Birth and Post-Partum Complications

- Mrs. Faye delivers a healthy baby and is sent home within 2 days
  - Mother of toddler and employed full-time as business manager (with limited maternal leave)
  - Unable to avoid standing for long durations and lifting heavy child/items
- Post-birth complications:
  - C-section incision-site opening and infection
  - Unable to breast-feed infant
  - DVT in right calf

DVT = deep venous thromboembolism.

Preventing Pre/Post-Partum Disorders

- *What should have been done in Mrs. Faye's case?*
  - Refer to nutritionist, and regular follow-up care, especially when diagnosed with gestational diabetes, overweight, previous history of stillbirth
    - HCP unconscious bias/stereotype: "That's normal for Black female patients"
    - Nutrition education/assistance should be culturally aligned
  - Consider SDoH: If patient does not exercise/walk regularly, ask why
    - May not have sidewalks or parks in area of residence, gym access, etc.
  - Prenatal
    - Provide blood pressure and glucose monitors
  - Postpartum maternal and infant care, mobile nurses
    - Incision, wound care, pain care and infection prevention
    - Breast-feeding training, formula packages
  - Consider community-based care partners for post-natal care

SDoH = Social determinants of health.

Recalibrating VBAC: Informed Delivery Choice

- VBAC tool opens conversation vs. driving clinical decision, reduces fear, and increases control/choices
  - Women may avoid hospital deliveries because feel that history of C-section means they will have another C-section
  - Home births increase risks, etc.
- VBAC unfavorable scores reduced when race removed
  - Hispanic women: 44.6% unfavorable with race compared to 9.5% without race included
  - Black women: 43.9% unfavorable with race compared to 12.5% without race included
- VBAC tool based on retrospective research and Black and other women of color not representative of that research

Faulkner S, et al. *Am J Obstet Gynecol.* 2021;224(2 Suppl):S467-S468.

Patient Case: Mrs. Rosario Lopez

- 26 YO Latina woman; G1, P0
- Presents at 33 weeks complaining of SOB, diagnosed with severe pre-eclampsia
  - Presented to ED prior, given inhaler for SOB and discharged
- Medications:
  - Ventolin inhaler
  - Patient reports taking prenatal vitamins regularly

ED = Emergency department. SOB = Shortness of breath.

Patient Case: Rosario Lopez, cont.

- In labor for long period, arrested labor, oxytocin and magnesium sulfate administered, leading to C-section
- At risk to develop postpartum hemorrhage and requires BP control.
- Discharged after 3 days, told to follow-up to manage BP
- Presents 4 days later with eclamptic seizures and is admitted to NICU

NICU = Neonatal intensive care unit.

HCP Biases and Medical Myths

- *What should have been done differently for patients like Mrs. Lopez?*
  - Bias/myth that only or all women of color have higher BP/GFR, etc.
  - HCP unconscious biases and medical myths that some disorders occur only in certain populations and HCPs ignore risk if person does not fit preconceived “look”

Barriers to care can go either way – important to emphasize that in some cases, White or Hispanic women may be overlooked for pre-eclampsia

GFR = Glomerular filtration rate.
Vyas DA, et al. *N Engl J Med*. 2020;383(9):874-882.

Causes of Maternal Mortality

- Eclampsia and pre-eclampsia – **5.06x** higher in Black women[1]
- Postpartum cardiomyopathy – **4.86x** higher in Black women[1]
- Hypertensive disease – **3x** higher in Hispanic women[2]
- Obstetric hemorrhage and embolism
- Maternal mortality rates similar for White and Hispanic women
- Anesthesia complications – **7x** higher in Black women[1]
- Ectopic pregnancy – **5th**-leading cause in Black women[1]
- Integrate AIM's patient safety bundles into your practice to remove bias in care[3]

AIM = Alliance for Innovation on Maternal Health.

1. MacDorman MF, et al. *Am J Public Health.* 2021;111:1673-1681. 2. Howell EA. *Clin Obstet Gynecol*. 2018;61(2):387-399. 3. Alliance for Innovation on Maternal Health (AIM). *Patient safety bundles*. AIM Website. 2020. https://safehealthcareforeverywoman.org/aim/patient-safety-bundles/#core. Accessed December 18, 2021.

Mitigating Maternal Mortality

- Prominence of CVD conditions among leading causes of maternal death, particularly for Black women[1]
- If rates of pregnancy-related CVD equal between Black women and White women, overall maternal mortality disparity would be reduced by 52.2%
  - Important to improve early diagnosis and treatment of CVD complications, including hypertensive disorders in pregnancy[2]
- 39.5% of maternal mortality in Hispanic women due to infection, hemorrhage and hypertensive disorders[3]

Think about SDoH. Don't use race as construct to screen patients.

CVD = Cardiovascular disease.

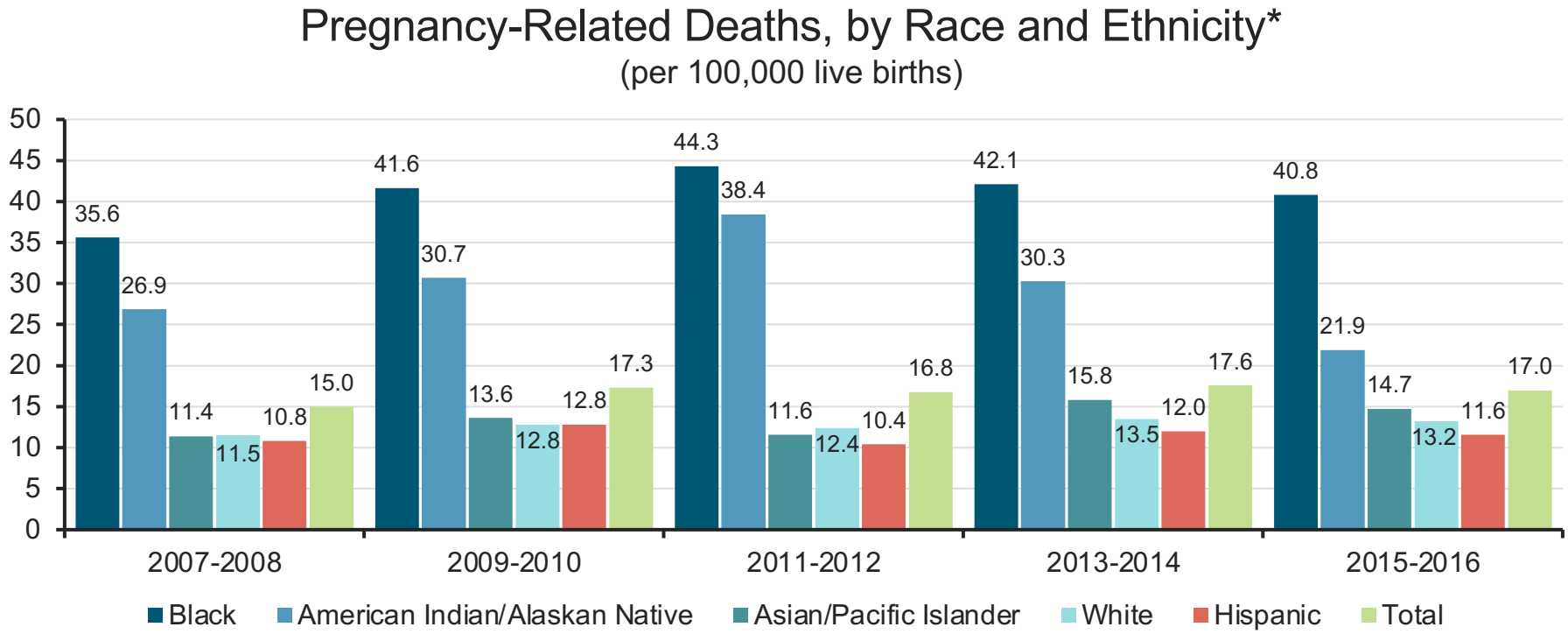
1. MacDorman MF, et al. *Am J Public Health.* 2021;111:1673-1681. 2. Brown CM, Garovic VD. *Drugs*. 2014;74(3):283-296. 3. Howell EA. *Clin Obstet Gynecol*. 2018;61(2):387-399.

Action Steps To Provide Equitable Maternal Care

- Implicit bias training throughout the health care system
- Respectful maternity care involving all HCPs and anyone that will encounter the patient
- AIM's bundles
- Consider a patient's SDoH
- Listen to the patient, they are experts of their own body
- We still have a lot of work to do

Maternal Mortality: The Color of Risk

United States nearly **DOUBLE** mortality rate of other wealthy, industrialized nations



*National averages, rates may vary in areas with specific populations, such as Puerto Rico and New York City (NYC).

Petersen EE, et al. *MMWR Morb Mortal Wkly* Rep. 2019;68:762-765.

Patient Case: Dr. Mary Swiftwater

- 41 YO Native American; G4, P0
- Calls OB office at 22 weeks because feeling unwell and worried after 3 prior losses
- OB felt she was “overreacting”
- Presents to ED with preterm labor at 27 weeks
  - Prematurely ruptured
  - Chorioamnionitis infection
- HCPs assume she has other children – Dr. Swiftwater must explain that this will be her first viable child
- Although is a physician, does not feel heard and still has difficulty navigating risks of delivering at 27 weeks

Audience Response

Maternal health inequities increase with maternal age; what is the mortality rate for Black and Native American women over the age of 30 years compared to White women?

a) 1.5 to 2 times higher
b) 2 to 3 times higher
c) 3 to 4 times higher
d) 4 to 5 times higher

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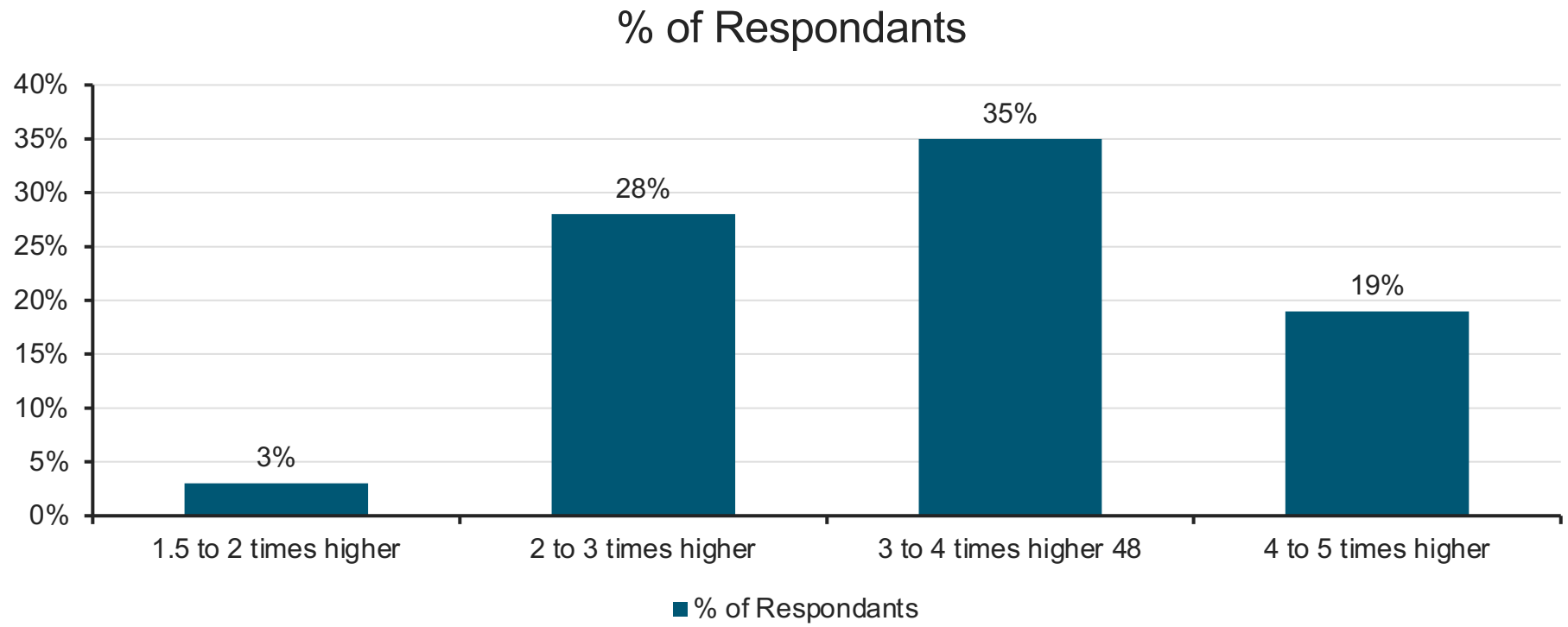

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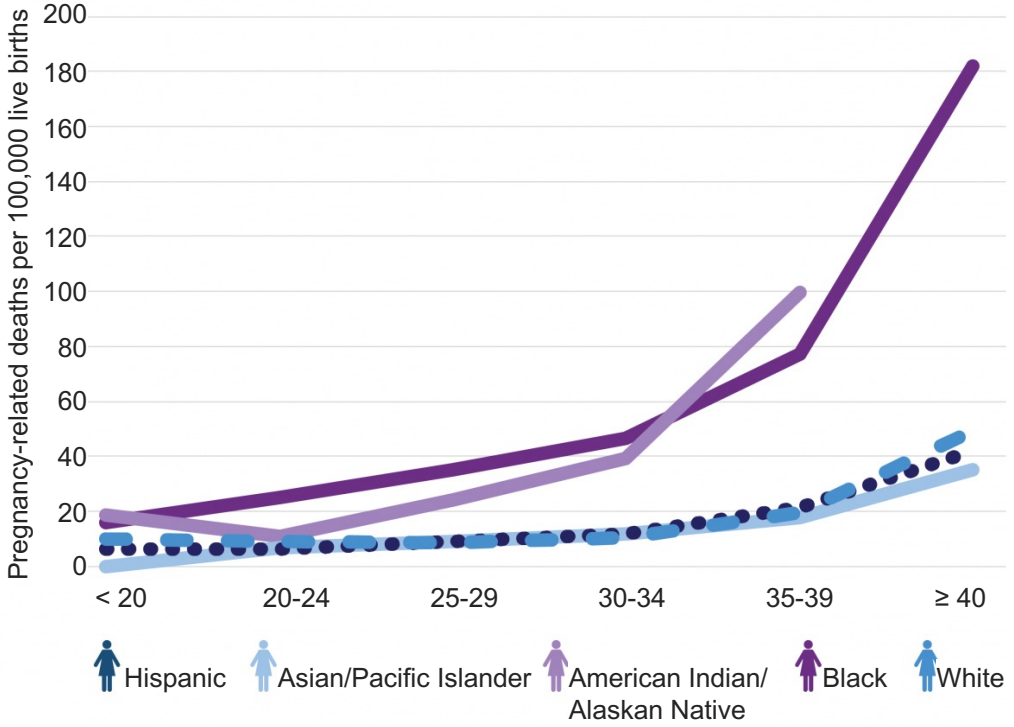
Maternal Health Inequities Increase By Age

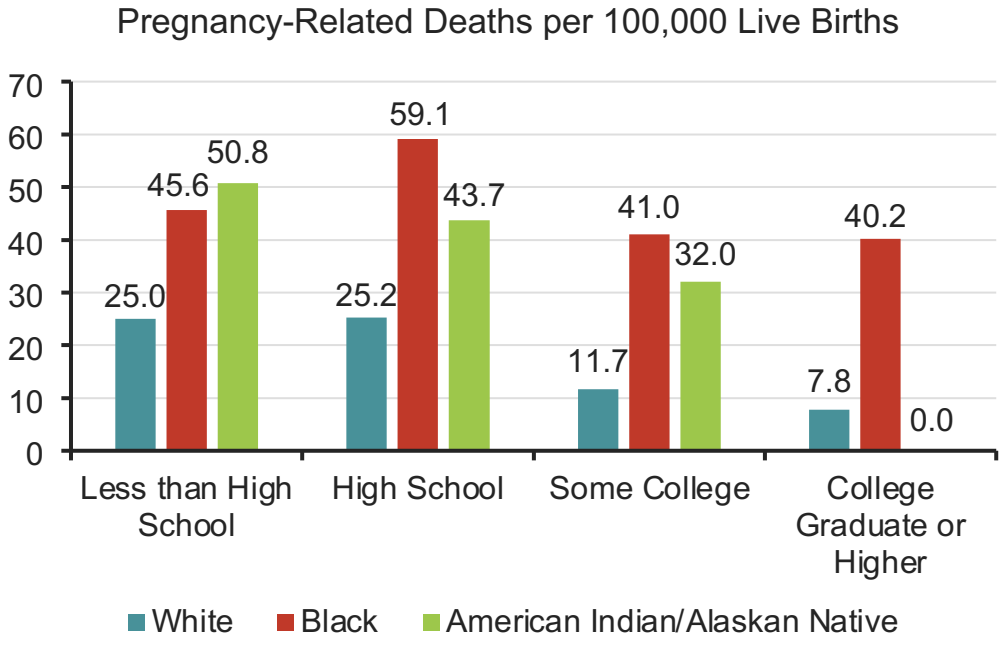
- Maternal health disparity ratio for Black and Native American women > 30 years are 4-5x higher than White counterparts



Centers for Disease Control and Prevention [CDC]. *Infographic: Racial/Ethnic disparities in pregnancy-related deaths – United States, 2007-2016.* CDC Website. 2020. Infographic-disparities-pregnancy-related-deaths-h.pdf. Accessed November 8, 2021.

Maternal Education Paradox

- PRMR are **3x** to **5x** higher for Native American and African American women with some college or graduate level education compared to White women with similar education levels
- HCP unconscious/implicit biases, explicit biases, and structural racism factors have greater impact than patient education or behaviors



PRMR = Pregnancy-related mortality ratios.
Petersen EE, et al. *MMWR Morb Mortal Wkly* Rep. 2019;68:762-765.

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Respectful Maternal Care

- Importance of equitable preconception care, prenatal care, and postpartum care
- Be cognizant of:
  - Personal biases, both unconscious/implicit and explicit - Recognize
  - How we speak to a patient when we enter the room - Respect
  - How we engage patient's partner/family - Respond
  - How we treat patient if they don't agree with treatment decision – Reply respectfully
- Unconscious bias/myth that Black women "don't feel as much pain" can lead to physical distress, trauma during delivery
  - Creates medical mistrust leading many women to opt for home birth
  - Be your patient's advocate and do not allow them to be uncomfortable
- Racial, cultural, and language concordance builds trust

SMART Goals

Specific, Measurable, Attainable, Relevant, Timely

- Recognize and address structural racism and HCP unconscious/implicit biases in maternal care.
- Integrate maternal safety bundles and best practices, such as the “4 Rs,” to reduce preventable maternal morbidity and mortality.
- Develop care plans that focus on respectful maternity care to mitigate disparities in maternal health outcomes.
- Implement effective clinical interventions and follow-up by the entire care team to prevent/manage major causes of maternal morbidity and mortality.

CMEO BriefCase 2

Achieving Equity in the Management of Chronic Pain: Treating the Whole Patient

CMEO BriefCase 3

Addressing Racial Disparities in Orthopedic Care

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