RACIAL DISPARITIES IN MATERNAL MORTALITY

STATE OF THE UNION

MARIE-IGNACE G. MOREL, MD, FACOG

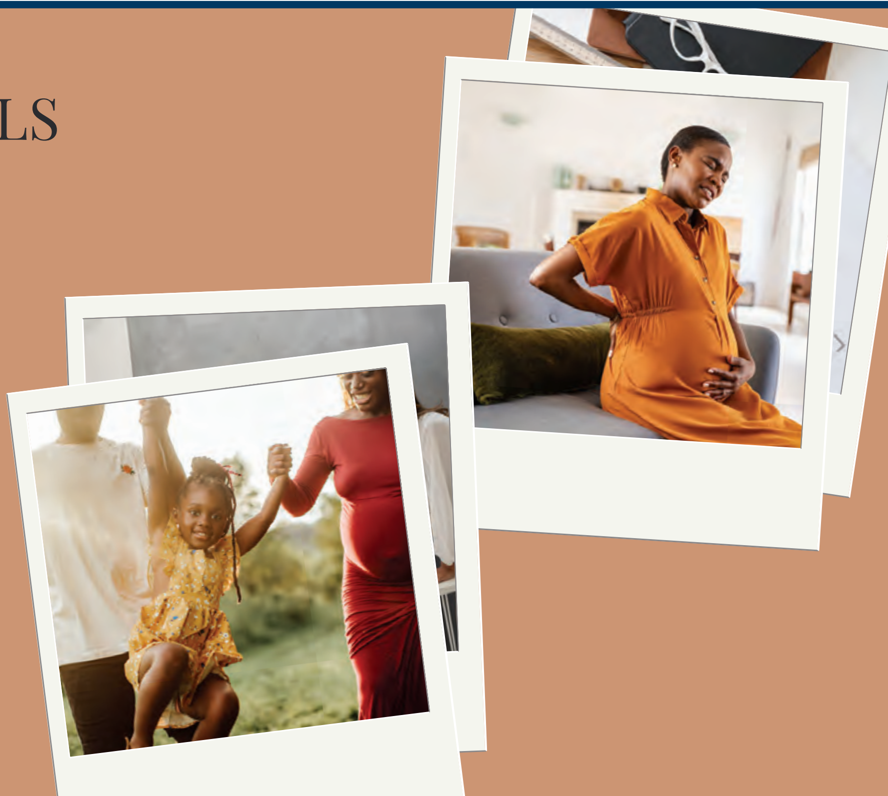
PERINATAL SPECIALISTS OF THE PALM BEACHES

DISCLOSURES

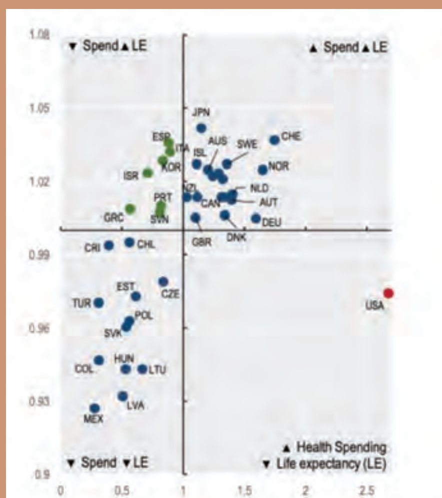
"NO RELEVANT FINANCIAL DISCLOSURES"

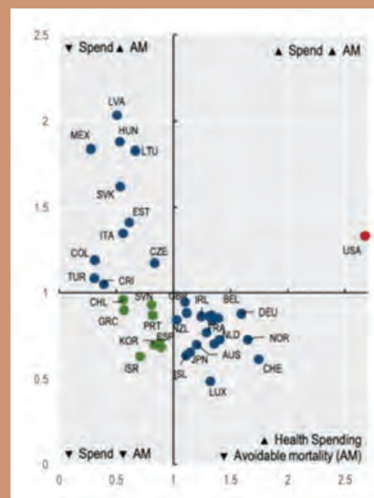
AGENDA & GOALS

- Definitions & Background
- Epidemiology
- Causes
- Solutions and the Future
- Deep Thoughts & Questions



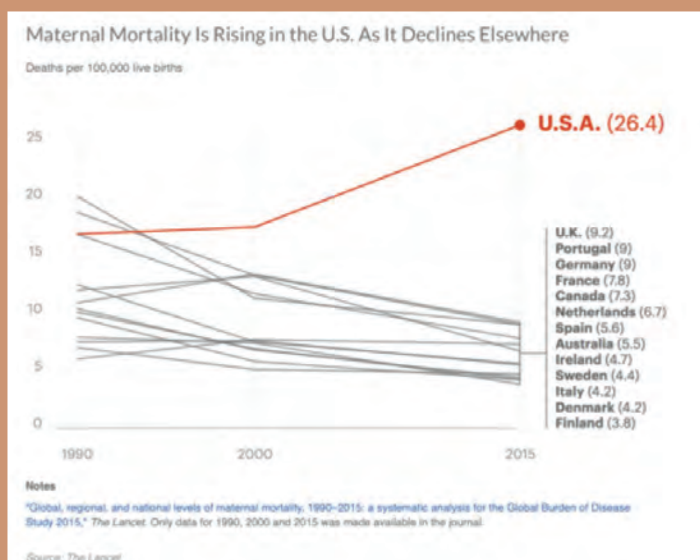
BACKGROUND

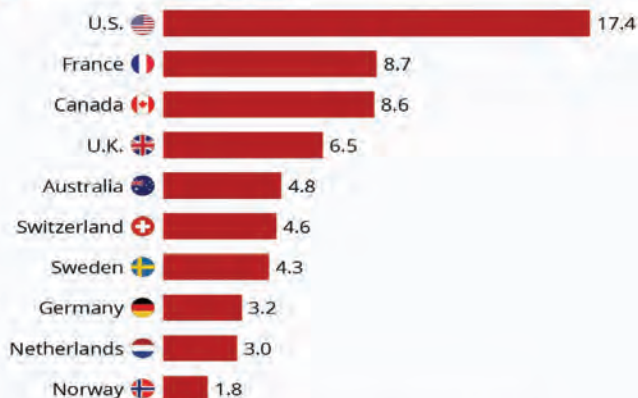


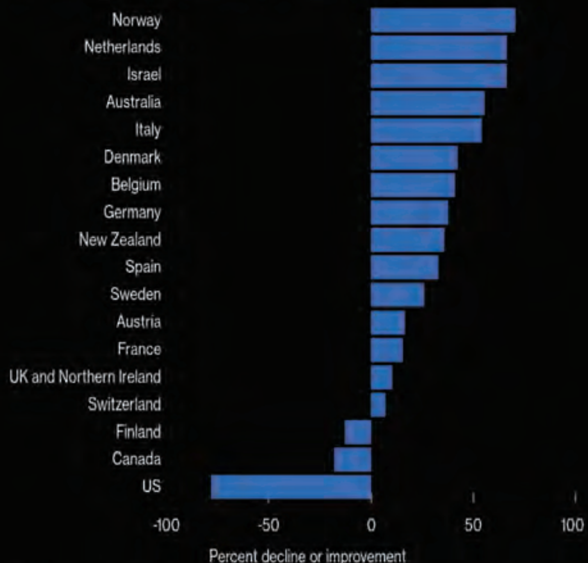


HOW ABOUT MATERNAL MORTALITY?

Maternal mortality is death while pregnant or up to 42 days post pregnancy.







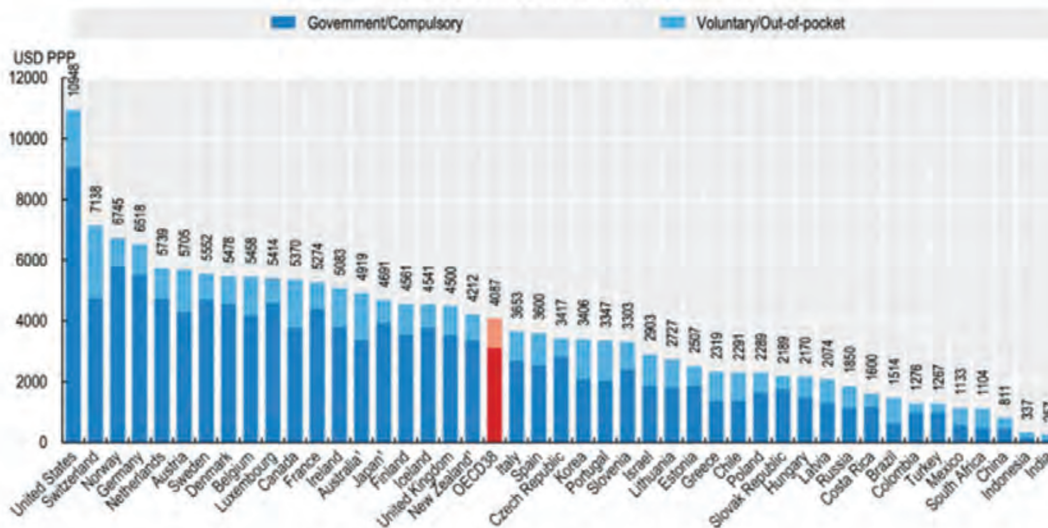


Figure 7.4. **Health expenditure per capita, 2019 (or nearest year)**

1. OECD estimates.
Source: OECD Health Statistics 2021, WHO Global Health Expenditure Database.

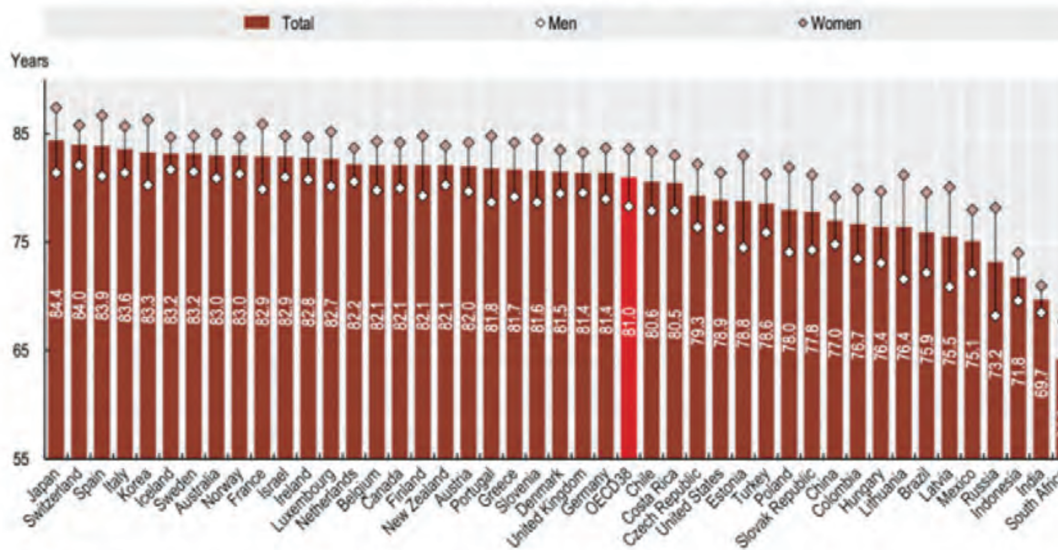


Figure 3.3. **Life expectancy at birth by sex, 2019 (or nearest year)**

Source: OECD Health Statistics 2021.

Maternal Mortality in the USA

The maternal mortality rate hit a peak in 2021.

Maternal mortality rate per 100,000 births, 2000–2021

Source: Centers for Disease Control and Prevention

USAFACTS

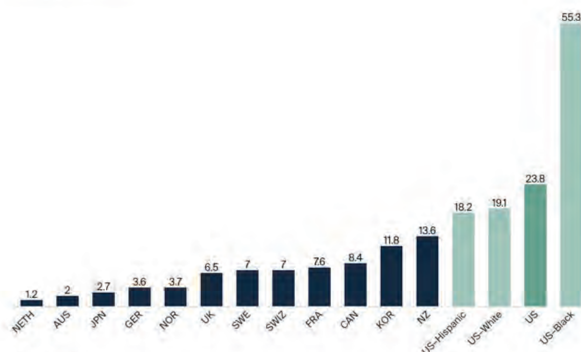
TRENDS IN

PREGNANCY- RELATED MORTALITY

IN THE USA

New Data Shows U.S. Maternal Mortality Rate Exceeds That in Other High-Income Countries

Deaths per 100,000 live births

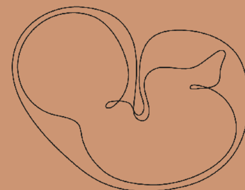


Download data

Notes: The maternal mortality ratio is defined by the World Health Organization as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. 2015 data for FRA; 2017 data for UK; 2018 data for NZ; 2019 data for SWIZ; 2020 data for AUS, CAN, GER, JAP, KOR, NETH, NOR, SWE, and US.

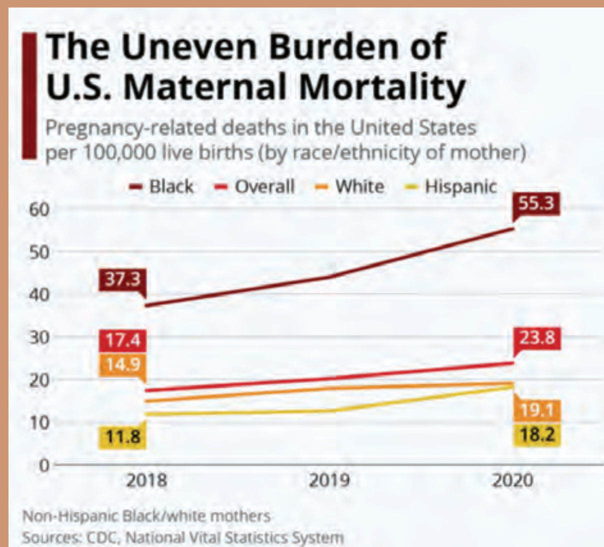
Data: Data for all countries except US from OECD Health Statistics 2022. Data for US from Donna L. Hoyert, *Maternal Mortality Rates in the United States, 2020* (National Center for Health Statistics, Feb. 2022).

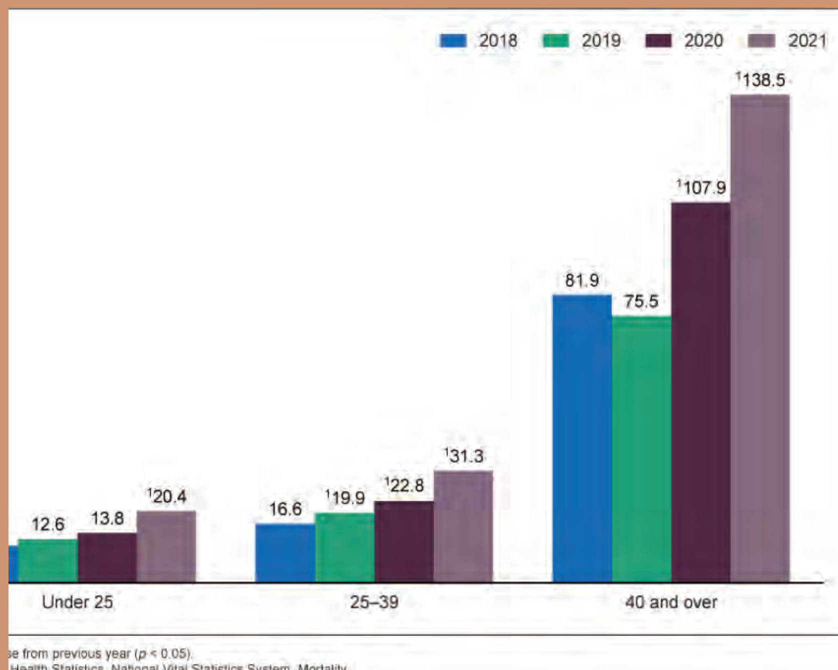
Source: Munira Z. Gunja, Evan D. Gumas, and Reginald D. Williams II, "The U.S. Maternal Mortality Crisis Continues to Worsen: An International Comparison," To the Point (blog), Commonwealth Fund, Dec. 1, 2022.



Wait what?

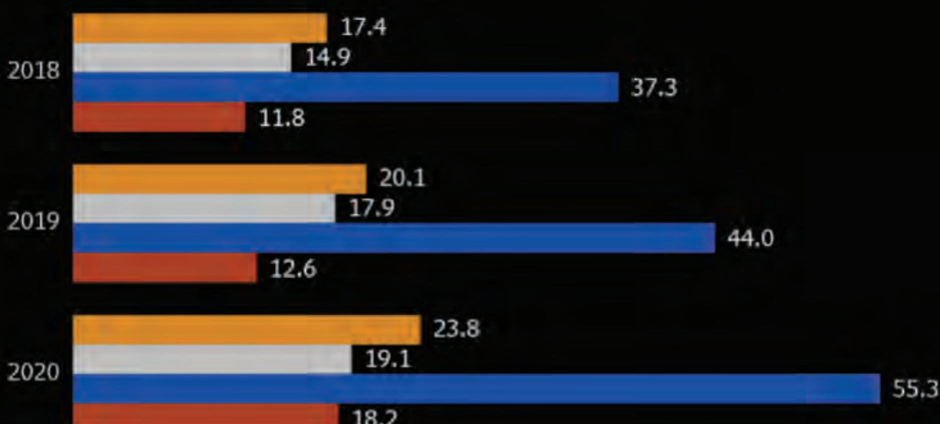
But if we look at the data, we see the bimodality…

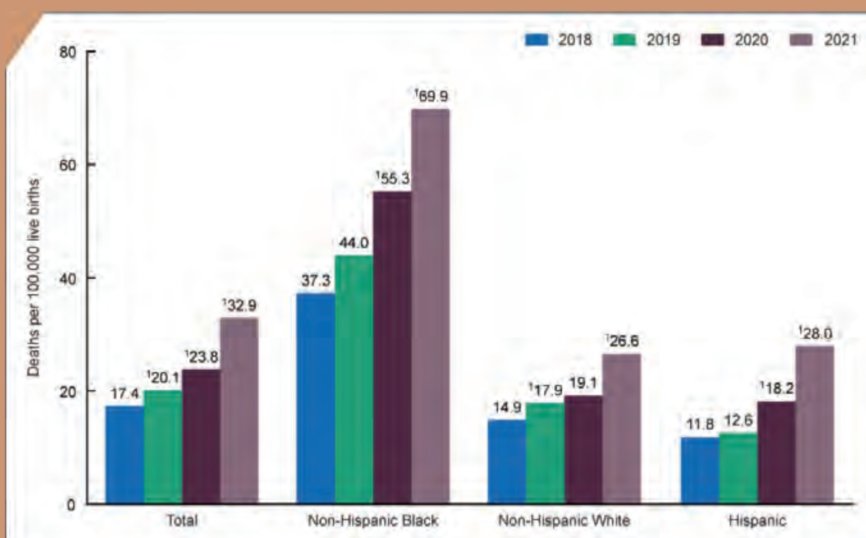




MM: By Age groups:

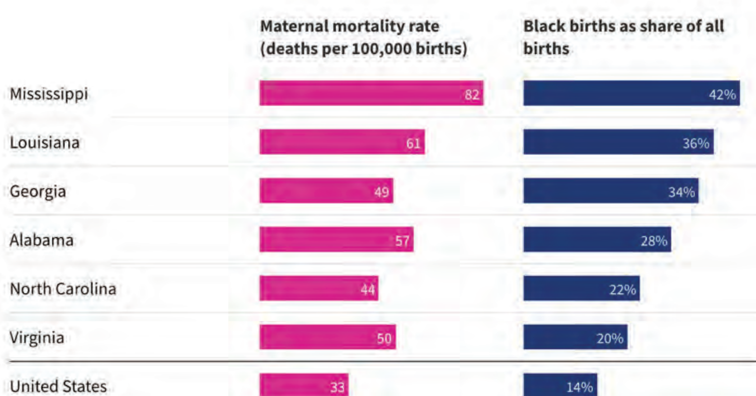
USA 2018-2021





[1]Statistically significant increase from previous year ($p < 0.05$).
NOTE: Race groups are single race.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Maternal Mortality By States

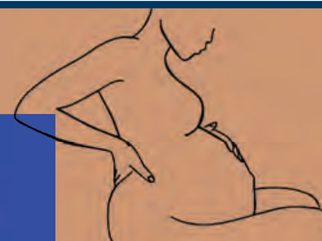


Maternal death: the death of a woman while pregnant, (or within 42 days of termination of pregnancy).

- irrespective of the duration and the site of the pregnancy

MATERNAL DEATH

EACH MATERNAL DEATH IS A TRAGEDY….

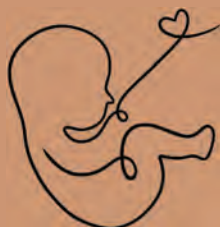


Definitions and key terms

- **Maternal deaths**:
  Women who died while pregnant or up to 42 days following the end of pregnancy from causes related to or aggravated by pregnancy, but not including injuries. (WHO)

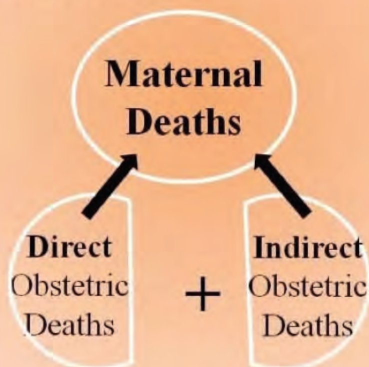
- **Pregnancy-associated deaths**:
  Women who died while pregnant or within one year following the end of pregnancy, from any cause including injuries. *Includes maternal deaths.* (CDC/ACOG)

BFCH, MDPH 2002

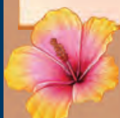


Maternal death: the death of a woman while pregnant, (or within 42 days of termination of pregnancy).

- All maternal deaths are either direct obstetric deaths or indirect obstetric deaths



Population Research Institute: pop.org



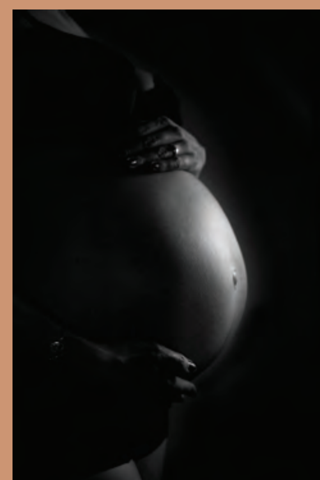
Pregnancy-related mortality: Death during pregnancy or within one year of the end of pregnancy from: a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy. Used by the Centers for Disease MATERNAL DEATH

Direct Obstetric Death: those deaths resulting from:
- obstetric complications of the pregnant state (pregnancy, labor and post-partum)
- interventions, omissions, or incorrect treatment
- or from a chain of events resulting from any of the above.

Population Research Institute: pop.

Indirect Obstetric Death: those deaths resulting from previous existing disease (or from a disease that developed during pregnancy) and which was *not* due to **direct obstetric causes**, bu which was ***aggravated by*** physiologic effects of pregnancy.

Population Research Institute: p



Maybe it's Genetic?

Interestingly, reduction in maternal death associated with prenatal care is also greater for White women than for Black women who receive prenatal care

Although Sickle Cell Disease related and similar genetic causes for Maternal Mortality are increasing, the top causes are:

- Eclampsia and preeclampsia (MRR 5.06, 95% CI 3.16-8.21)
- Postpartum cardiomyopathy (4.86, 95% CI 2.93-8.12)
- Obstetric embolism (2.58, 95% CI 1.55-4.23)
- Obstetric hemorrhage (2.27, 95% CI 1.22-4.11)
- MRR: mortality rate ratio (non-Hispanic Black females vs. non-Hispanic White females)

What are 5 leading causes of maternal mortality?

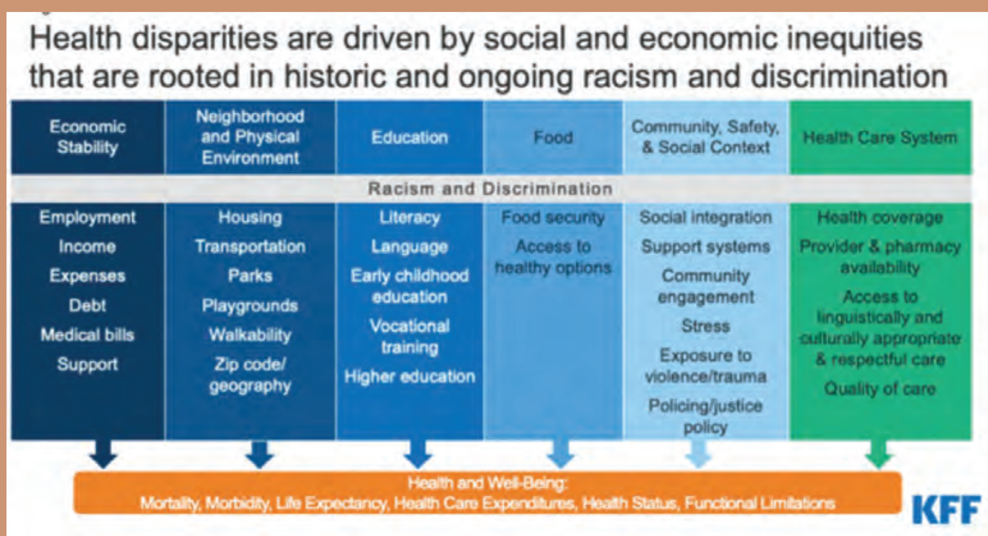
The major complications that account for nearly 75% of all maternal deaths are:

- Severe bleeding (mostly bleeding after childbirth)
- Infections (usually after childbirth)
- High blood pressure during pregnancy (pre-eclampsia and eclampsia)
- Complications from delivery
- Unsafe abortion

Chicken or Egg problem...

Why?

Ultimately the ZIP Code you were born in defines your life



Deep Dive into Factors

- Patient Level Factors
- Clinicians and IMPLICIT BIAS
- Health Care System
- Socio-cultural Context

SOCIAL DETERMINANTS OF HEALTH

NON–MEDICAL FACTORS THAT INFLUENCE HEALTH OUTCOME

THE CONDITIONS PEOPLE ARE BORN, GROW, WORK, LIVE AND AGE

THE SET OF FORCES AND SYSTEMS SHAPING THE CONDITIONS OF DAILY LIFE

THEY INCLUDE ECONOMIC POLICIES AND SYSTEMS, DEVELOPMENT AGENDAS, SOCIAL NORMS , SOCIAL POLICIES AND POLITICAL SYSTEMS

SDH HAVE AN IMPORTANT INFLUENCE ON HEALTH INEQUITES

- Income and Social protection
- Education
- Unemployment and Job insecurity
- Working Life Conditions
- Food insecurity
- Early Childhood development
- Housing, basic amenities ties and the environment
- Social inclusion and non-discrimination
- Structural Conflict
- Access to affordable health service

The Elephant in the Room: IMPLICIT BIAS

- Possibly the only factor within our immediate control
- Our bias is not explicit, and most providers are unaware of the inequities
- Black pain is not treated (doi:10.1001/jamanetworkopen.2022.16281)
- Symptoms are not believed, fewer or mistimed treatments and interventions... (doi: 10.89/whr.2021.0148)

Debiasing, as easy as 1-2-3

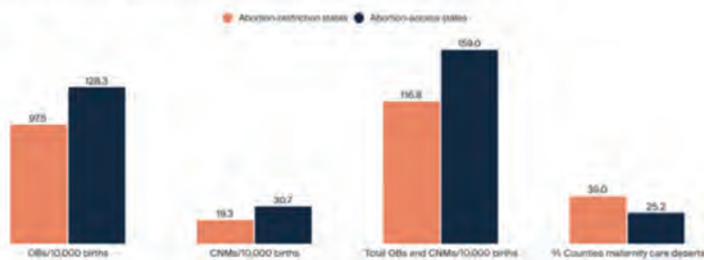
- (1) Intention to change existing biases
- (2) Attention to one's own stereotypical responses
- (3) Time to practice strategies required to break habitual associations

How to debias...

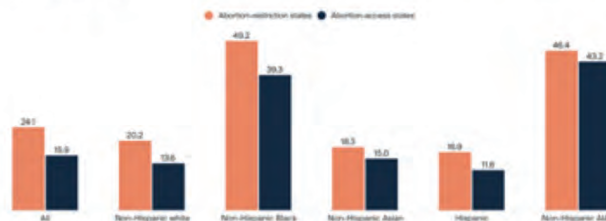
- Start by doing the https://implicit.harvard.edu/implicit/takeatest.html test. You'll be surprised...
- Stereotype replacement – The individual learns to recognize responses to an individual or scenario that rely on stereotypes, then actively replaces the biased response with an unbiased one
- Counter-stereotypic imagining – After the individual learns to recognize his/her stereotypical response to an individual from a particular background, the individual then remembers interactions with other persons from the same background who counter the stereotype and prove it inaccurate
- Individuating – The individual learns how to obtain specific details of a different person's background, likes, dislikes, family, work, et cetera, in order to better make judgements based on individual, rather than group, characteristics
- Perspective-taking – The individual actively considers the perspective of a stereotyped person, which may facilitate understanding of the emotional toll borne by those often stereotyped
- Increasing opportunities for positive contact – The individual actively seeks out opportunities to experience or be in contact with positive examples of stereotyped groups

How can WE make a difference?

- Family planning with birth spacing and contraception (30 percent reduction)
- Safe abortion (13 percent reduction)
- Hemorrhage prevention and treatment (8 to 9 percent reduction)
- Cesarean section when indicated (7 percent reduction)
- Prevention of eclampsia and treatment of preeclampsia (7 percent reduction)



The Second Elephant in the Room: ABORTION



Success Stories: California Maternal Quality Care Collaborative (CMQCC)

- Public & Private partnership
- Elucidated that almost 40% could've been prevented in CA
- Data-Driven, led to 50% reduction while other states were increasing
- Key points: rapid/systemic response to Hemorrhage, Severe HTN, Infection/Fever/Sepsis

ACOG Approach: Alliance for Innovation on Maternal Health -AIM

- Maternal venous thromboembolism prevention
- Postpartum care basics for maternal safety
- Obstetric care for women with opioid use disorder
- Obstetric hemorrhage
- Reduction of peripartum racial/ethnic disparities
- Safe reduction of primary cesarean birth
- Severe hypertension in pregnancy
- Severe maternal morbidity review
- Support after a severe maternal event
- Maternal mental health: Depression and anxiety

MM Review Committees, i.e the good ol' M&M Meetings

- Was the death pregnancy-related? i.e. "Would she have died if she had not been pregnant?"
- What was the underlying cause of death?
- Was the death preventable?
- What were the factors that contributed to the death?
- What are the recommendations and actions that address those contributing factors?
- What is the anticipated impact of those actions if implemented?

MMRC Part 2

- MMRC has been backed by the 2018 US Preventing Maternal Deaths Act
- CDC gathered data and helped states establish MMRCs

Suggestions, large impact likely:

- Adopt levels of maternal care/ensure appropriate level of care determination
- Improve policies regarding prevention initiatives, including screening procedures and substance use prevention or treatment programs
- Enforce policies and procedures
- Improve policies related to patient management, communication and coordination between providers, and language translation
- Improve access to care

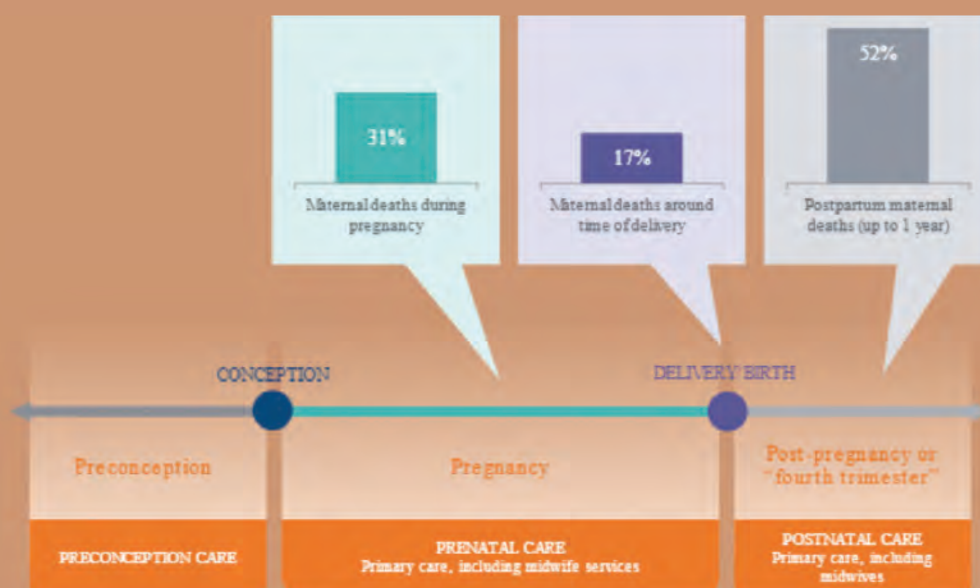
Wouldn't be a PPT without mentioning JCAHO

JCI suggests:

- Good Communication between all members of the health care delivery team, consultants, the patient, and the patient's family.
- Education of clinicians about the potential additional risks in pregnant women with underlying medical conditions. These risks should be discussed during preconception care and counseling, and appropriate contraception should be offered. High-risk patients should be referred to obstetricians with expertise in and resources for caring for these patients.
- Development of written protocols and drills for promptly responding to changes in maternal vital signs with best practices. Common scenarios are management of severe hypertension or hypotension, treatment of pulmonary edema in preeclampsia, and early response to postpartum Hemorrhage.
- Instituting measures (pneumatic compression devices, low molecular weight heparin) to reduce the frequency of pulmonary embolism in high-risk patients.

FUTURE

- We mostly know the issue, the causes and the fixes. But unless we take action, the problem is not going to fix itself
- Most risk factors are systematic and hard to fix or there's a lack of political will
- But as clinicians, we can fix implicit bias, as well as be leaders for our healthcare systems to fix issues within their power and lead the way
- The status quo is unacceptable



- When parents come in for infant check-ups, listen for urgent maternal warning signs that may be mentioned
- Extreme exhaustion, swelling, or thoughts of harming herself or her baby are important to watch for, among other things, for a full year postpartum
- Postpartum people experiencing any urgent maternal warning sign should seek medical care immediately
- Consider ways to connect moms to additional care when needed, whether it is emergency care, referrals to other medical professionals or other support services

Pediatrics

Pediatricians, pediatric nurses, and other pediatric staff can be an important connection to care for postpartum people.

in addition, the American Academy of Pediatrics recommends routine screening for postpartum depression during well-child visits at 1, 2, 4, and 6 months of age.

- Ask questions to better understand your patient and things that may be affecting their lives
- Help your patients, and those accompanying them, understand the urgent maternal warning signs and when to seek medical attention right away
- Help patients manage chronic conditions or conditions that may arise during pregnancy like hypertension, diabetes, or depression
- Recognize unconscious bias in yourself and in your office
- Provide all patients with respectful care
- Address any concerns your patients may have

HEALTHCARE PROFESSIONALS

As a healthcare professional, you play a critical role in eliminating preventable maternal mortality

URGENT WARNING SIGNS

- Headache that won't go away or gets worse over time
- Dizziness or fainting
- Thoughts about hurting yourself or your baby
- Changes in your vision
- Fever
- Trouble breathing
- Chest pain or fast-beating heart
- Severe belly pain that doesn't go away
- Severe nausea and throwing up (not like morning sickness)
- Baby's movements stopping or slowing during pregnancy
- Vaginal bleeding or fluid leaking during pregnancy
- Vaginal bleeding or fluid leaking after pregnancy swelling, redness, or pain of your leg
- Extreme swelling of your hands or face
- Overwhelming tiredness

WHAT ELSE CAN BE DONE?

- Maintain a healthy diet
- Increase Physical Activity
- Quit all Substance Abuse
- Stress Reduction
- Health Literacy
- Preconception Counseling
- Mental Health Counseling
- Train Providers in Cultural Competency
- Pregnancy Medical home programs
- Implicit Bias Training

Deep Thoughts and Questions

REFERENCES

Howell EA, Brown H, Brumley J, et al. Reduction of peripartum racial and ethnic disparities: a conceptual framework and maternal safety consensus bundle. *Obstet Gynecol*. 2018;131(5):770-782.

Wang E, Glazer KB, Howell EA, Janevic TM. Social determinants of pregnancy-related mortality and morbidity in the united states: a systematic review. *Obstet Gynecol*. 2020;135(4):896-915.

Eugene Declercq et al., *The U.S. Maternal Health Divide: The Limited Maternal Health Services and Worse Outcomes of States Proposing New Abortion Restrictions* (Commonwealth Fund, Dec. 2022)

ACOG Committee Opinion No. 649: Racial and Ethnic Disparities in Obstetrics and Gynecology. Obstet Gynecol 2015; 126:e130.

Centers for Disease Control and Prevention. CDC Health Disparities and Inequalities Report- United States, 2013. MMWR 2013;62 (suppl 3). U.S. Department for Health and Human Services. www.cdc.gov/mmwr/pdf/other/su6203.pdf (Accessed on April 24, 2018).

GBD US Health Disparities Collaborators. Cause-specific mortality by county, race, and ethnicity in the USA, 2000-19: a systematic analysis of health disparities. Lancet 2023.

Healthcare Cost and Utilization Project. Trends and Disparities in Delivery Hospitalizations Involving Severe Maternal Morbidity, 2006-2015. Agency for Healthcare Research and Quality. August, 2018. http://www.hcup-us.ahrq.gov/reports/statbriefs/sb243-Severe-Maternal-Morbidity-Delivery-Trends-Disparities.jsp

Understanding Menopause in our Community

Ervin Rene Riano Marin, MD, FACOG
Medical Director of QO Gyn Services
Associate Program Director
Flushing Hospital Medical Center
October 5, 2023

Purpose and Objectives

Purpose: To increase consciousness of how cultural background can affect women in menopause state

Objectives

- Understand racial and ethnic disparities within the menopause experience
- Examine cultural considerations during the menopause transition

Disclosures

No financial interests

QO Gynecology services

- Our goal is to empower and support women in our community to achieve and maintain optimal health and well-being through accessible, comprehensive, and culturally competent healthcare services.

- We envision a community where every woman has equitable access to high-quality healthcare, education, and resources to make informed decisions about her health and lead a healthy and fulfilling life. Our clinic strives to be a trusted partner in women's health, fostering a supportive and inclusive environment where women can thrive.

Why discuss menopause in the communities of Hispanic, Black, Indigenous, and People of Color?

- Understanding and respecting cultural differences.
- Lack of representation in menopause studies, research, and publications.
- Understanding that menopause affects ALL women and how we can be inclusive of all races, ethnicities, and cultures to impact diagnosis, treatment, intervention, and therapies in menopausal women.

Background

Menopause

- Normal, natural life events that all women experience
- The final menstrual period confirmed when woman has missed menstrual period for 12 consecutive months
- Average age 51-52, range 40-58 years of age
- Smoking and genetics may influence the timing of natural menopause
- Age at first period, use of birth control pills or fertility medications not known causal factors

Stages

Perimenopause

Characterized by irregular menstrual cycles (early perimenopause) or 2-12 months of amenorrhea (late perimenopause)

Average age:

Mid to late 40s

Perimenopause Transition last about 3 to 5 years.

On average, women are in perimenopause for four years before periods stop*

Menopause

Permanent cessation of menses resulting from loss of ovarian follicular function, usually because of aging

Average age:

51-52 y

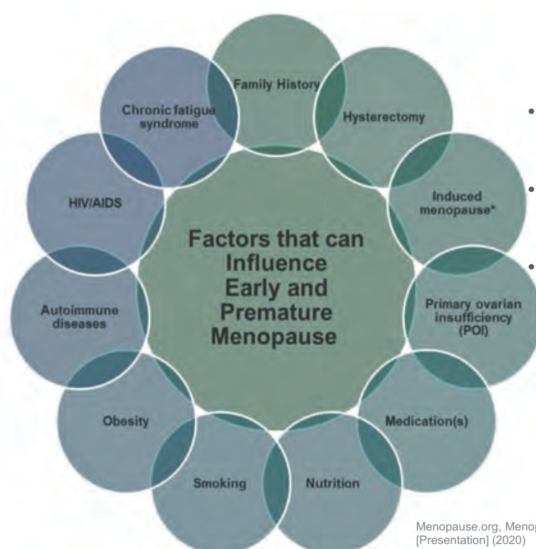
95% of women reach post-menopause by 55 years

*U.S. Office of Women's Health Menopause Basics (2021)

Menopause: Types

Natural	Early	Premature (POI)	Induced
Menopause that occurs naturally (51-52 years)	Menopause that occurs before 45 years	Menopause that occurs before age 40 years	Surgical or iatrogenic loss of ovarian function

Early & Premature Menopause



- Decreasing ovarian reserve
- Reduced inhibin B & AMH
- Loss of inhibin restraint of FSH:
  - Rise in FSH
  - Faster growth of remaining follicles (short follicular phase)
  - Increase in atresia

Menopause.org, Menopause A to Z [Presentation] (2020)
U.S. Office of Women's Health Early or premature menopause (2021)

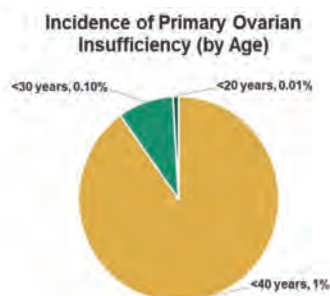
Long-term health implications of early and induced menopause

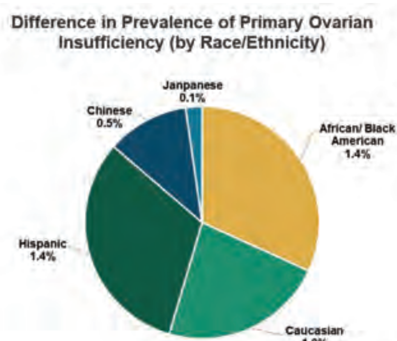
- Increased overall mortality
- Increased diabetes risk
- Cognitive impairment
- Dementia
- Parkinsonism
- Glaucoma
- CHD
- Osteoporosis
- Mood disorders
- Sexual dysfunction

Menopause.org, Menopause FAQs (2022)
.Faubion, S. et al, Long-term health consequences of premature or early menopause and considerations for management (2015)

Primary Ovarian Insufficiency

Women's Health Across the Nation Study that included over 15,000 participants shows that...



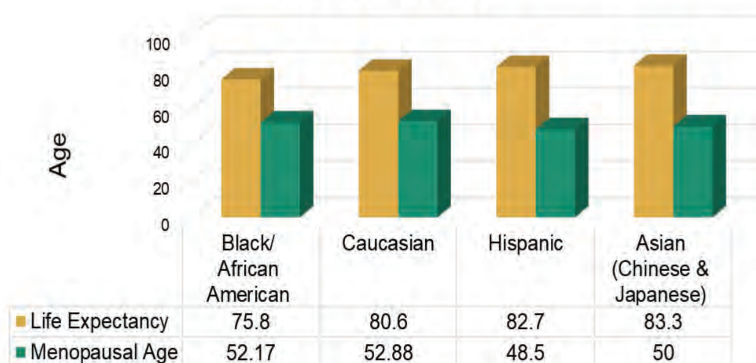


n= 7,771 Caucasian; 4,393 African/Black American; 1,942 Hispanic; 654 Chinese; and 845 Japanese participants across multiple clinical sites.

Wilshire A., Primary ovarian insufficiency" a glimpse into the racial and socioeconomic disparities found within third-party reproduction (2022)

Hispanic women reach menopause early

Average Life Expectancy and Menopausal Age (by Race/Ethnicity)



	Black/ African American	Caucasian	Hispanic	Asian (Chinese & Japanese)
Life Expectancy	75.8	80.6	82.7	83.3
Menopausal Age	52.17	52.88	48.5	50

23

.Menopause.org, Menopause A to Z [Presentation] (2020)

Sign and Symptoms

Perimenopause

Age: 45 to 51

- Irregular periods
- Hot flashes
- Night sweats
- Poor sleep
- Vaginal dryness
- Adverse mood
- Weight gain
- Loss of libido

Menopause

Age: 51

- Depression/anxiety
- Vaginal dryness
- Cognitive changes
- Headaches/migraines
- Hair loss, thinning
- Skin changes
- Night sweats
- Bone fragility
- Heart palpitation
- Vaginal dryness, itching
- Joint pain
- Weight gain
- Bladder incontinence

Menopause experience across cultures

Black/African American women….

- Longer menopausal transitions
- More likely to report vasomotor symptoms, forgetfulness, vaginal dryness
- More prone to social, systemic, and institutional stressors such as racism and discrimination[2]

Asian women…

- Subethnic difference
- They may have lower rates of vasomotor symptoms but experience more fatigue, forgetfulness, musculoskeletal pain, and GUSM / sexual dysfunction.
- Negatively associate quality of life with age[11]

Hispanic/Latino/a/e/x women…

- More likely to report vaginal dryness, urine leakage, forgetfulness, increased heart rate[2]

Across and within cultures/ethnicities there are variances within signs and symptoms women experience.

2. Menopause.org, Menopause: October 2018 - Volume 25 - Issue 10 - p 1105-1109

Cultural consideration

Language

- Preferred language of communication?
  - Translation of terms
  - Pictures descriptors

Sleep Disturbances

- *Do you have to change your sheets from sweating at night?*
- *Do you require a cold climate to sleep best?*
- *Do you have to have the fan or air conditioner to sleep in the winter?*
- *Do you wake up often to use the bathroom?*

Hot Flashes

- *Are you experiencing hot flashes?*
  - What are other ways racial and ethnic groups describe hot flashes; some Caribbean patients describe it as "heat"; Hispanics may say "calores“.

Cultural consideration

Sexual Health

- *Have you been experiencing increased or decreased libido (sexual desire)?*
- *Have you been experiencing vaginal dryness or any pain/discomfort during sex?*

Mental Health

- *Have you been experiencing any of the following:*
  - *Depression*
  - *Anxiety*
  - *Loss of words*
  - *Forgetfulness*
  - *Mood swings*

Patient Point of View

- *Do you feel comfortable talking to your provider about menopause?*
- *Would you offer any information about your symptoms, or would you prefer to be asked about your symptoms?*

Non-hormonal treatment options

- Food, diet
- Exercise
- Behavior modifications
- Herbal supplements
- Acupuncture
- Yoga/Tai chi
- Meditation
- Cognitive-behavioral therapy
- Hypnosis

Hormonal treatment

- Systemic HT, with estrogen alone or in combination with progestin, is the most effective therapy for vasomotor symptoms related to menopause.
- Low-dose and ultra-low systemic doses of estrogen are associated with a better adverse effect profile than standard doses and may reduce vasomotor symptoms in some women.
- Given the variable response to HT and the associated risks, it is recommended that health care providers individualize care and treat women with the lowest effective dose for the shortest duration that is needed to relieve vasomotor symptoms.
- The risks of combined systemic HT include thromboembolic disease and breast cancer.

Practice Bulletin No. 141 Management of Menopausal Symptoms *Obstetrics & Gynecology* 127(1):p 166, January 2016.

Hormonal treatment

- Selective serotonin reuptake inhibitors, SSNRIs, clonidine, and the gabapentin are effective alternatives to HT for the treatment of vasomotor symptoms related to menopause.
- Estrogen therapy effectively alleviates atrophic vaginal symptoms related to menopause. Local therapy is advised for the treatment of women with only vaginal symptoms.
- Paroxetine is the only nonhormonal therapy that is approved by the FDA for the treatment of vasomotor symptoms.
- The FDA approved ospemifene for treating moderate-to-severe dyspareunia in postmenopausal women

Practice Bulletin No. 141 Management of Menopausal Symptoms *Obstetrics & Gynecology* 127(1):p 166, January 2016.

Summary

Cultural humility is key to understanding our patient population.

Ask and empower women to start the conversation about menopause.

All women will go through menopause; however, the experience is different in each one depending on race, culture, and ethnicities.

Contact Information

Ervin Rene Riano Marin, MD, FACOG
QO Gynecology Services
mdreneriano@gmail.com

References

1. Menopause.org, Menopause A to Z [Presentation] (2020)

2. U.S. Office of Women's Health Early or premature menopause (2021)

3. Menopause.org, Menopause FAQs (2022)

4. Faubion, S. et al, Long-term health consequences of premature or early menopause and considerations for management (2015)

5. Wilshire A., Primary ovarian insufficiency" a glimpse into the racial and socioeconomic disparities found within third-party reproduction (2022)

6. Foronda C, Baptiste DL, Reinholdt MM, Ousman K. Cultural Humility: A Concept Analysis. J Transcult Nurs. 2016 May;27(3):210-7. doi: 10.1177/1043659615592677. Epub 2015 Jun 28. PMID: 26122618.

7. Practice Bulletin No. 141 Management of Menopausal Symptoms *Obstetrics & Gynecology* 127(1):p 166, January 2016.

Thank you!