Violent maternal death in the US

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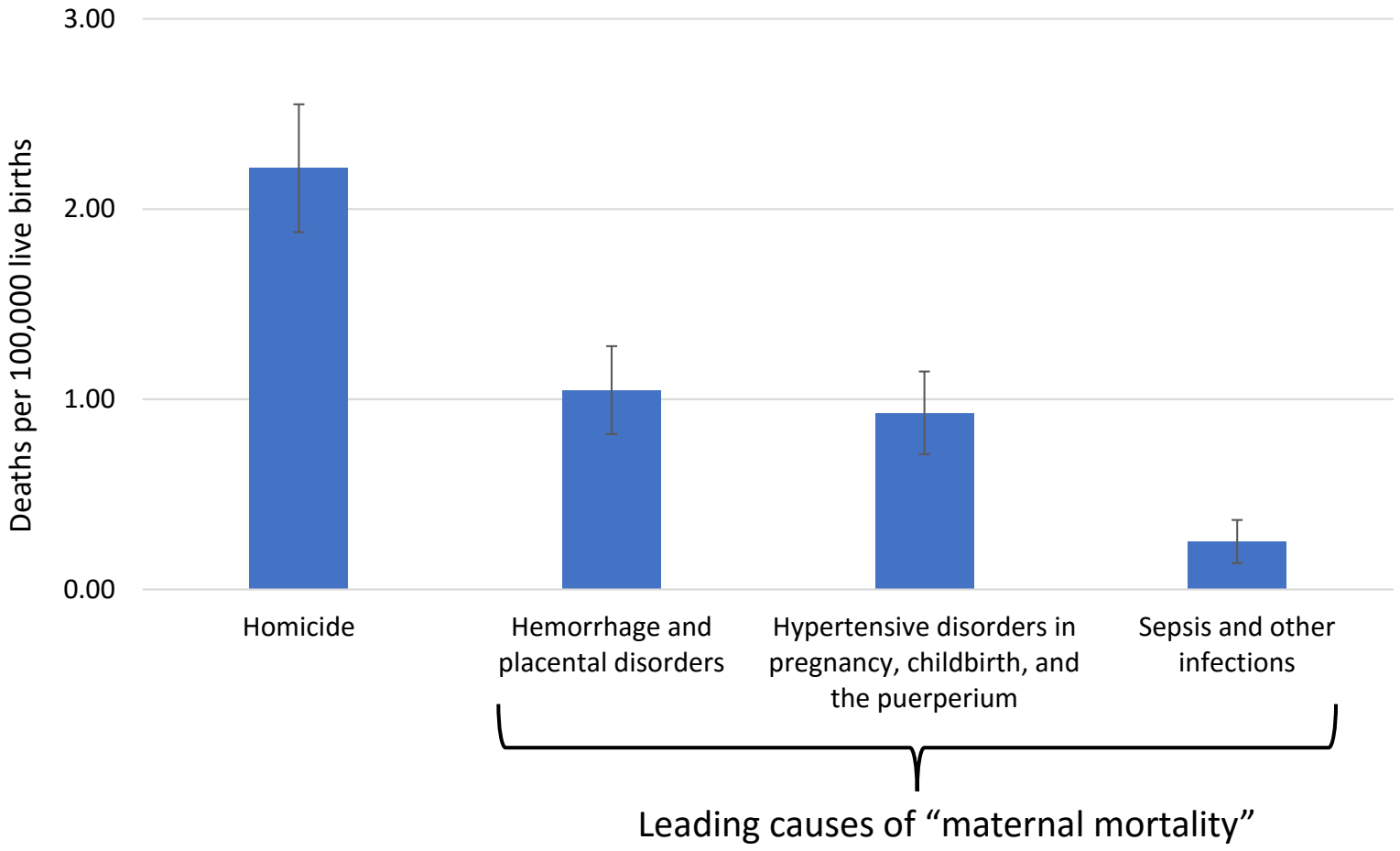
Key point #1

Homicide is a leading cause of death during pregnancy and the postpartum period.

Cause-specific mortality rates among women who were pregnant or within 42 days at the time of their death, US 2018-2019.



Source: Wallace M, Gillispie-Bell V, Cruz K, Davis K, Vilda D. Homicide During Pregnancy and the Postpartum Period in the United States, 2018-2019. Obstet Gynecol. 2021 Nov 1;138(5):762-769.

Why does this matter?

- This has been true for decades. It remains true today.
- Until 2018 year, no national data were available
  - Key for surveillance, monitoring achievements in reductions
- Homicide and other violent causes are, by definition, not counted in estimates of maternal mortality
  - Failure to capture the totality of preventable death occurring in the pregnant and postpartum population
- Growing attention and resources devoted to maternal mortality in the US should broaden in scope to include violent death

Key point #2

Pregnancy increases a person's risk for homicide

- or -

Women who are pregnant or have recently given birth are more likely to be killed than other women of reproductive age

Comparing homicide rates

- A growing number of studies have shown that homicide rates are higher among women who are pregnant or postpartum compared to women of reproductive age who are neither pregnant or postpartum.
- The added risk conferred by pregnancy varies by geography, age and race/ethnicity.
- Adolescent persons and Black persons have consistently higher homicide rates during pregnancy and postpartum compared to their non-pregnant, non-postpartum counterparts.

Table 2. Homicide Mortality by Pregnancy Status and Victim Characteristics and Mortality Rate Ratios for Risk of Homicide Among Females in the Perinatal Period Compared with Nonpregnant, Nonpostpartum Females of Reproductive Age (10-44 Years) in the United States, 2018-2019

Characteristic	Pregnant or Within 1 y Postpartum*	Neither Pregnant Nor Within 1 y Postpartum†	Mortality RR (95% CI)
Total homicides	3.62 (3.19-4.05)	3.12 (3.03-3.22)	1.16 (1.03-1.31)
Race and Ethnicity	-	-	-
Non-Hispanic White	2.12 (1.66-2.58)	2.12 (2.02-2.22)	(1.00 (0.80-1.25)
Non-Hispanic Black	12.47 (10.38-14.56)	8.95 (8.53-9.36)	1.39 (1.17-1.66)
Hispanic	1.46 (0.90-2.02)	1.44 (1.31-1.57)	1.01 (0.68-1.50)
Other‡	3.54 (2.23-4.85)	3.84 (3.53-4.16)	0.92 (0.63-1.34)
Age (y)	-	-	-
10-19	10.12 (6.81-13.42)	1.52 (1.40-1.64)	6.67 (4.77-9.33)
20-24	6.77 (5.42-8.11)	4.09 (3.81-4.38)	1.65 (1.34-2.04)
25-29	2.61 (1.93-3.29)	4.07 (3.79-4.34)	0.64 (0.49-0.84)
30-34	2.24 (1.61-2.87)	4.04 (3.76-4.32)	0.56 (0.42-0.74)
35-44	2.46 (1.63-3.29)	3.37 (3.19-3.55)	0.73 (0.52-1.03)

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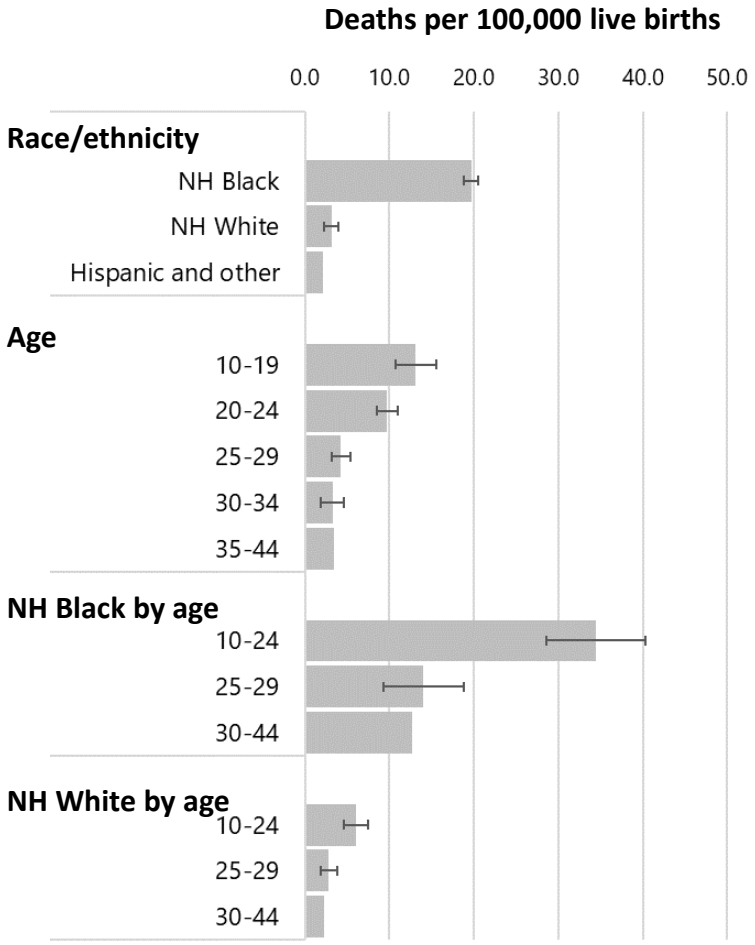
Characteristic	Pregnant or Within 1 y Postpartum*	Neither Pregnant Nor Within 1 y Postpartum†	Mortality RR (95% CI)
Race-ethnicity and age (y)	-	-	-
Non-Hispanic White	-	-	-
10-24	4.05 (2.62-5.47)	1.35 (1.23-1.48)	2.99 (2.08-4.30)
25-29	1.76 (0.99-2.54)	2.52 (2.23-2.81)	0.70 (0.33-1.10)
30-44	1.58 (1.02-2.13)	2.71 (2.53-2.88)	0.58 (0.41-0.83)
Non-Hispanic Black	-	-	-
10-24	21.09 (16.25-25.93)	7.63 (7.05-8.21)	2.77 (2.17-3.52)
25-29	9.62 (6.28-12.95)	11.93 (10.72-13.14)	0.81 (0.56-1.16)
30-44	7.63 (4.99-10.27)	9.21 (8.56-9.85)	0.83 (0.58-1.18)

Source: Wallace M, Gillispie-Bell V, Cruz K, Davis K, Vilda D. Homicide During Pregnancy and the Postpartum Period in the United States, 2018-2019. Obstet Gynecol. 2021 Nov 1;138(5):762-769.

Pregnancy-associated homicide rates (deaths per 100,000 live births) and 95% confidence intervals among persons aged 10-44 by race/ethnicity and age, United States 2020.



Source: Wallace M analysis of the 2020 mortality file provided by the National Center for Health Statistics (unpublished).

Why are there inequities?

- Inequities in unplanned pregnancy/bodily autonomy
  - → added stress and conflict between intimate partners
    - Unplanned pregnancy associated with nonfatal partner violence.
- Interpersonal, systemic, structural racism
  - Root causes of violence
  - Higher rates of unintended pregnancy Barriers to accessing timely and respectful prenatal care
    - Racial discrimination in the delivery of care
    - Negative perception of health care systems (later entry)
    - Missed opportunity for identification (screening) and linkage to survivor prevention services and resources.

Key point #3

Most maternal homicides are committed by an intimate partner, and most involve firearms

Intimate partner violence and firearms

- About 60-70% of pregnancy-associated homicides are known* to involved intimate partner violence
- About 70% of pregnancy-associated homicides involve firearms
- Research has shown that:
  - A gun in the home is a key factor in escalation of nonfatal spousal abuse to homicide.
  - Abusers who possess guns inflict the most severe abuse such that gun-ownership by an abuser may increase risk of homicide by other means.
  - Rates of firearm-related intimate partner homicide are greatest in states where firearm prevalence is highest.

What can be done?

- Identify and address homicide with the same imperative and rigor given to obstetrically caused deaths
  - Violent maternal death review committees make recommendations for intervention at individual, interpersonal, institutional, community, policy, and systems levels.
  - Office on Women's Health State, Local, Territorial, and Tribal Partnership Programs to Reduce Maternal Deaths due to Violence is a promising initiative!

- **Maternal mortality and violent maternal death share root causes, e.g.**
  - Income inequality associated with both
    - (see Vilda, et al. 2019 in *Social Science and Medicine – Population Health*; Dyer et al., 2022 in press at *Violence Against Women*)
  - Community violence associated with both
    - (see Wallace, et al. 2020 in *Journal of Women's Health*)
  - Structural racism associated with both
    - (see Dyer, et al. 2021 in *Maternal and Child Health Journal*)

What can be done? (Cont. 1)

- Address health and social system failures:
  - Longstanding recommendations for universal screening for intimate partner violence during pre- and postnatal care have been inadequate
  - Lack of universal procedures for responding to positive screens in effective and non-punitive ways
  - Care coordination and communication failures between Emergency Departments and OB/GYN

What can be done? (Cont. 2)

- Restrict possession of and access to firearms by persons convicted of domestic violence or under domestic violence restraining orders

By Maeve E. Wallace, Dovile Vilda, Katherine P. Theall, and Charles Stoecker

Firearm Relinquishment Laws Associated With Substantial Reduction In Homicide Of Pregnant And Postpartum Women

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HEALTH AFFAIRS 40,
NO. 10 (2021): 1–9

What can be done? (Cont. 3)

- Guarantee bodily autonomy and the right to decide when and whether to become pregnant and/or carry a pregnancy to term

What can be done? (Cont. 4)

- Racial inequities in both maternal mortality and pregnancy-associated homicide are a manifestation of societal failures to address social inequalities and structural racism.
  - Eliminate explicit and implicit racism in health care and other societal systems
  - Pass policies that ensure the equitable distribution of health promoting resources and opportunities in the places that women live and work

Thank you

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