Outcome Differences in Women of Color

Teera Crawford MD
Nkeiruka Duze MD

November 5th, 2022

Agenda

Part I

- Equity vs Equality
- Cancer Deaths
- Maternal Mortality

Part II

- Pain Management
- Cardiovascular Disease

Outcome Differences in Women of Color Part I

Nkeiruka Duze MD

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Inequality

Unequal access to opportunities

Equality?

Evenly distributed tools and assistance

Equity

Custom tools that identify and address inequalilty

Justice

Fixing the system to offer equal access to both tools and opportunities

Equality
Equity
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Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

= Common behaviors displayed by people with power and privilege, often unintentionally.

= Common inequities experienced by people without power and privilege.

https://www.virginiamasoninstitute.org/inequity-waste-wheel/

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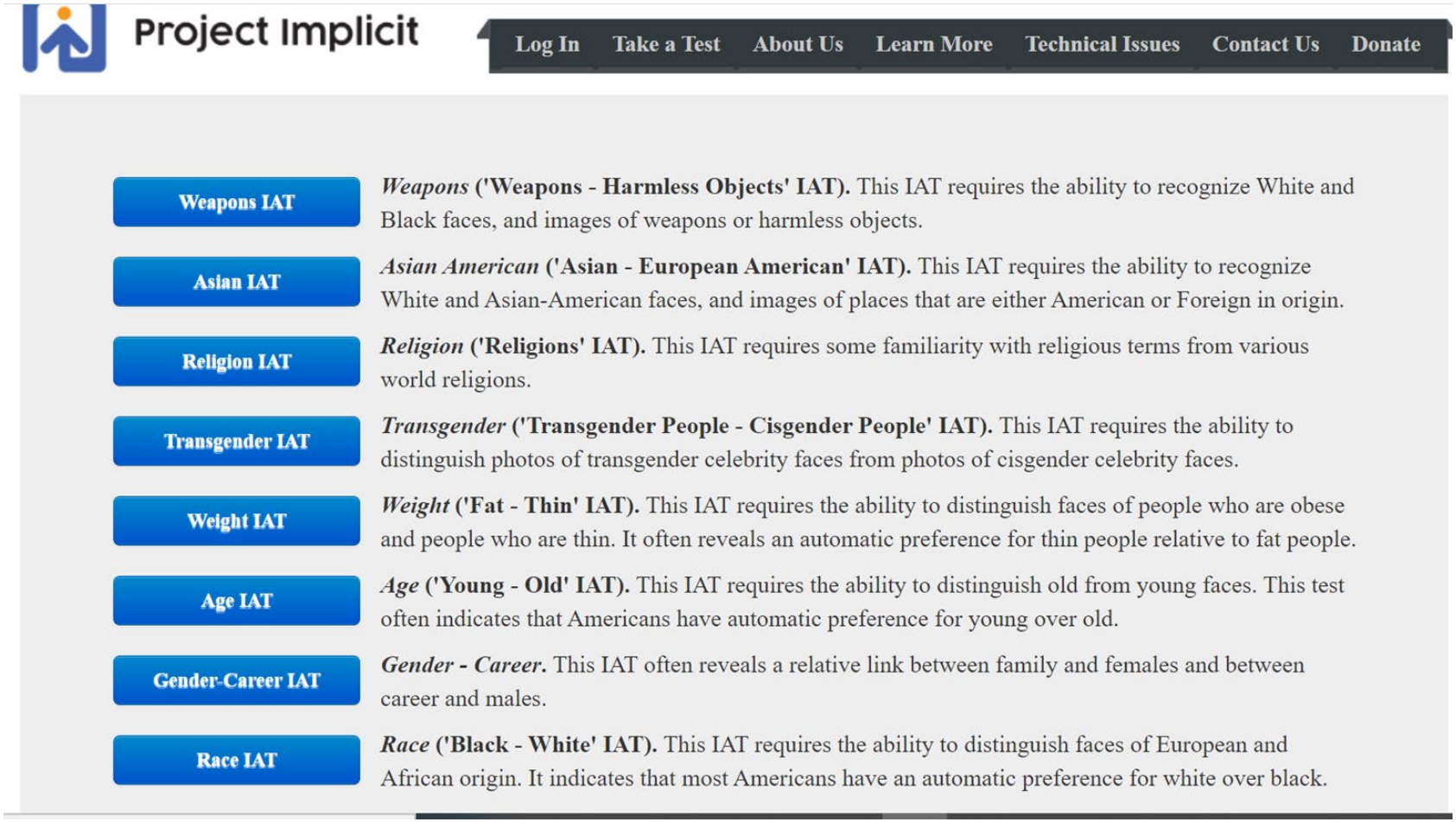
Take the Race Implicit Association Test



https://implicit.harvard.edu/implicit/selectatest.html

Cancer Deaths

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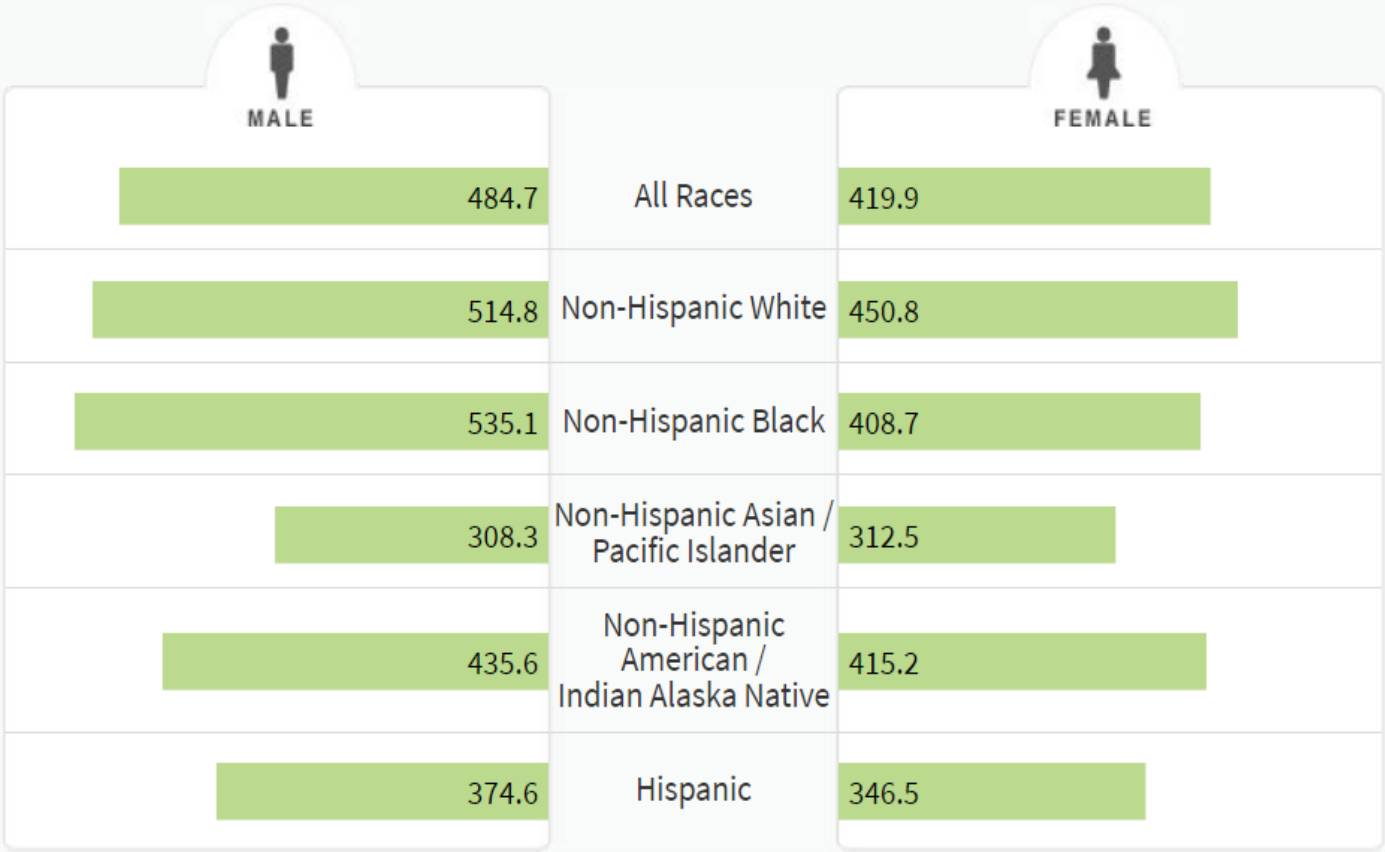
2022 Numbers..

	Common Types of Cancer	Estimated New Cases 2022	Estimated Deaths 2022
1.	Breast Cancer (Female)	287,850	43,250
2.	Prostate Cancer	268,490	34,500
3.	Lung and Bronchus Cancer	236,740	130,180
4.	Colorectal Cancer	151,030	52,580
5.	Melanoma of the Skin	99,780	7,650
6.	Bladder Cancer	81,180	17,100
7.	Non-Hodgkin Lymphoma	80,470	20,250
8.	Kidney and Renal Pelvis Cancer	79,000	13,920
9.	Uterine Cancer	65,950	12,550
10.	Pancreatic Cancer	62,210	49,830
	-	-	-
	Cancer of Any Site	**1,918,030**	**609,360**

Cancer Disparities by Race/Ethnicity

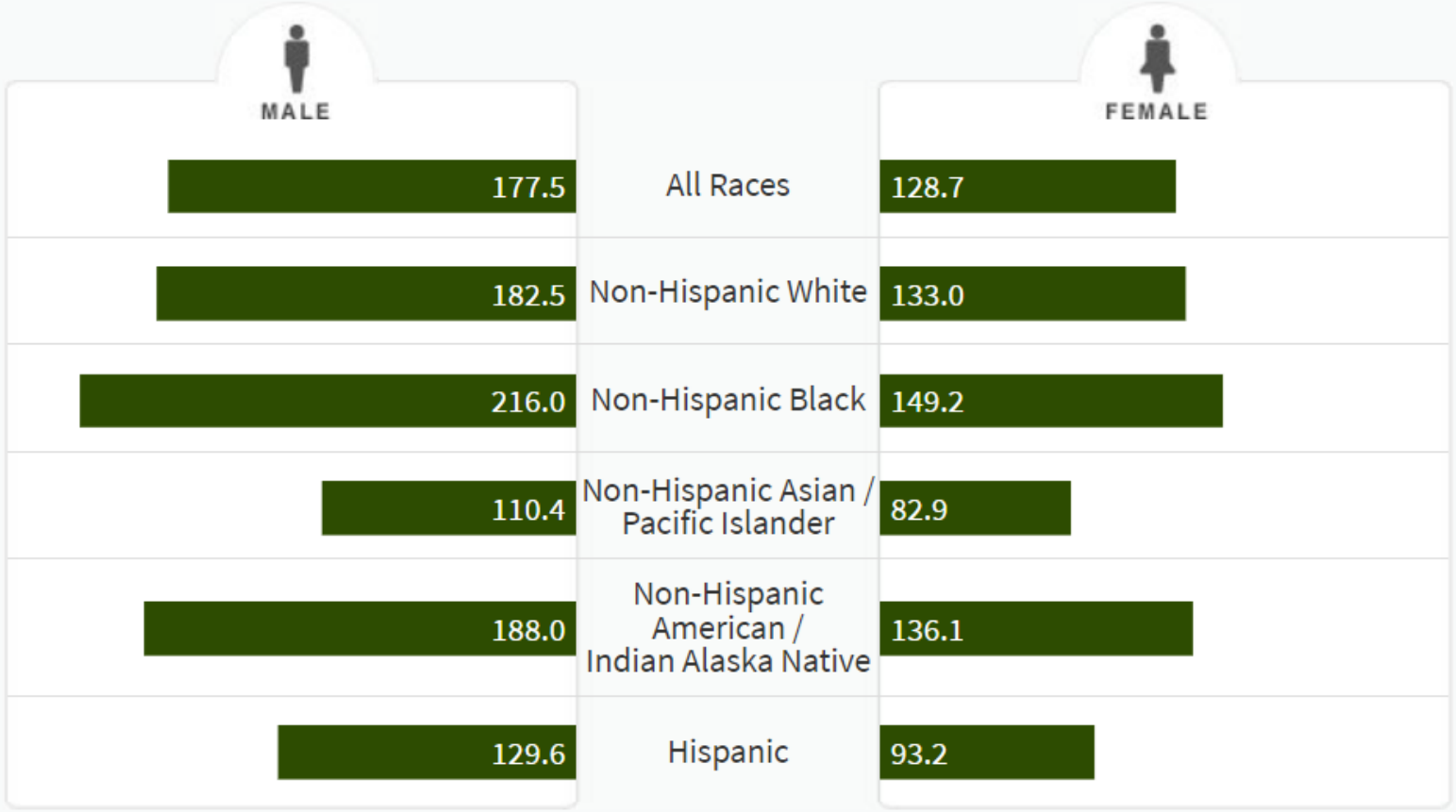
Rate of New Cases per 100,000 Persons by Race/Ethnicity & Sex: Cancer of Any Site



SEER 22 2015–2019, Age-Adjusted

Cancer Disparities by Race/Ethnicity

Death Rate per 100,000 Persons by Race/Ethnicity & Sex: Cancer of Any Site



U.S. 2016–2020, Age-Adjusted

Breast Cancer

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Breast Cancer

Globally as of 2020,

- Female breast cancer has surpassed lung cancer as the most commonly diagnosed cancer
- Accounts for 2.3 million new cases each year
- The leading cause of cancer death in women worldwide.

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Leading Cancer Types for the Estimated New Cancer Cases and Deaths by Sex, United States, 2022

Figure 3. Leading Sites of New Cancer Cases and Deaths – 2022 Estimates

Estimated New Cases

Male			Female		
Prostate	268,490	27%	Breast	287,850	31%
Lung & bronchus	117,910	12%	Lung & bronchus	118,830	13%
Colon & rectum	80,690	8%	Colon & rectum	70,340	8%
Urinary bladder	61,700	6%	Uterine corpus	65,950	7%
Melanoma of the skin	57,180	6%	Melanoma of the skin	42,600	5%
Kidney & renal pelvis	50,290	5%	Non-Hodgkin lymphoma	36,350	4%
Non-Hodgkin lymphoma	44,120	4%	Thyroid	31,940	3%
Oral cavity & pharynx	38,700	4%	Pancreas	29,240	3%
Leukemia	35,810	4%	Kidney & renal pelvis	28,710	3%
Pancreas	32,970	3%	Leukemia	24,840	3%
All sites	**983,160**		**All sites**	**934,870**	

Estimated Deaths

Male			Female		
Lung & bronchus	68,820	21%	Lung & bronchus	61,360	21%
Prostate	34,500	11%	Breast	43,250	15%
Colon & rectum	28,400	9%	Colon & rectum	24,180	8%
Pancreas	25,970	8%	Pancreas	23,860	8%
Liver & intrahepatic bile duct	20,420	6%	Ovary	12,810	4%
Leukemia	14,020	4%	Uterine corpus	12,550	4%
Esophagus	13,250	4%	Liver & intrahepatic bile duct	10,100	4%
Urinary bladder	12,120	4%	Leukemia	9,980	3%
Non-Hodgkin lymphoma	11,700	4%	Non-Hodgkin lymphoma	8,550	3%
Brain & other nervous system	10,710	3%	Brain & other nervous system	7,570	3%
All sites	**322,090**		**All sites**	**287,270**	

Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Estimates do not include Puerto Rico or other US territories. Ranking is based on modeled projections and may differ from the most recent observed data.

©2022, American Cancer Society, Inc., Surveillance and Health Equity Science

In the United States, breast cancer is

- The most common female cancer
- The second most common cause of cancer death in women

American Cancer Society. Cancer Facts & Figures 2022. Atlanta: American Cancer Society; 2022.

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Breast Cancer 2022 numbers

Statistics at a Glance

At a Glance

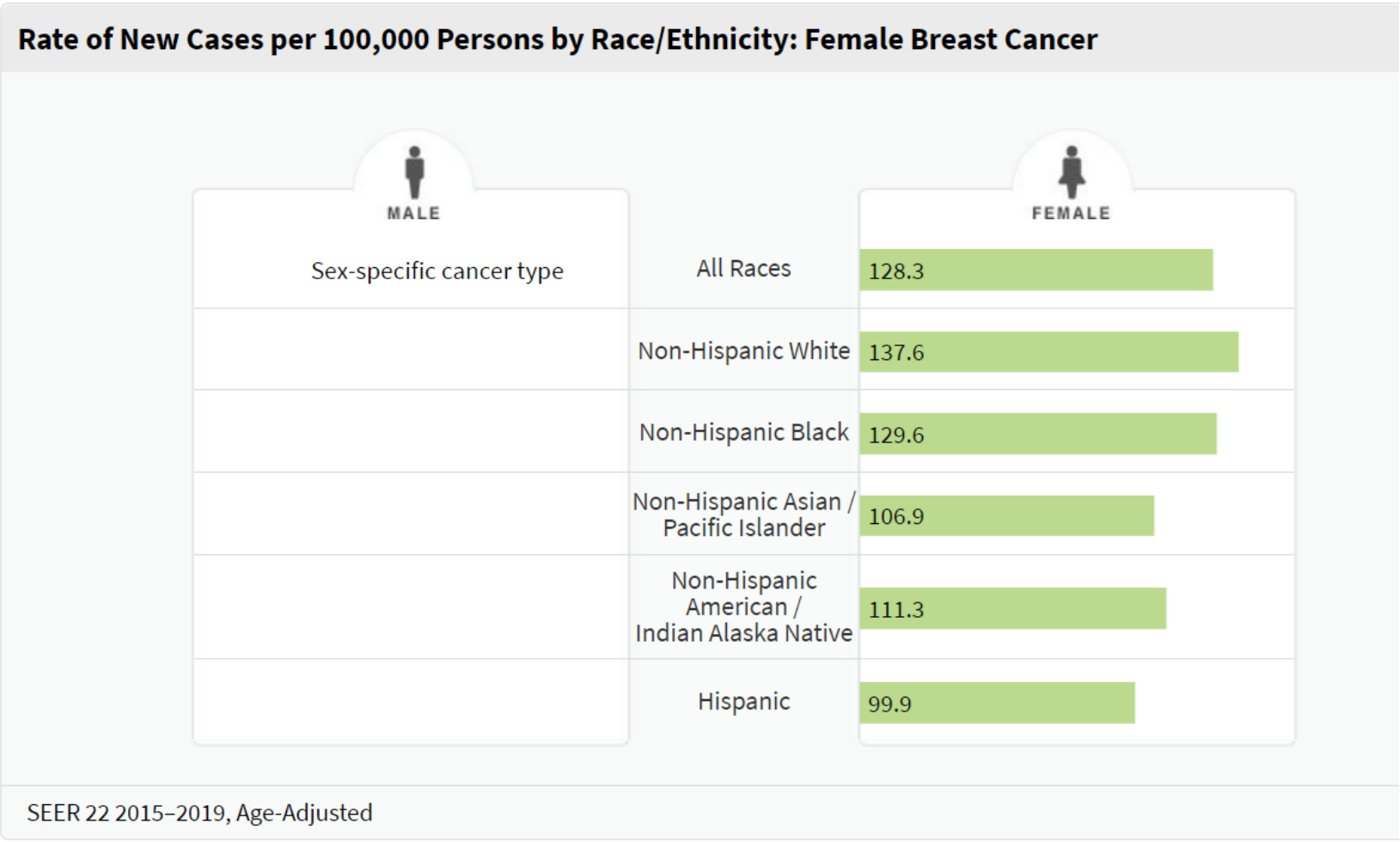
Estimated New Cases in 2022	287,850
% of All New Cancer Cases	15.0%

Estimated Deaths in 2022	43,250
% of All Cancer Deaths	7.1%

5-Year Relative Survival
90.6%
2012–2018

New cases come from SEER 12. Deaths come from U.S. Mortality.
All Races, Females. Rates are Age-Adjusted.

Rate of New Cases per 100,000 Persons by Race/Ethnicity: Female Breast Cancer



However, it should be noted that the incidence of breast cancer before age 45 is higher among Black versus White women

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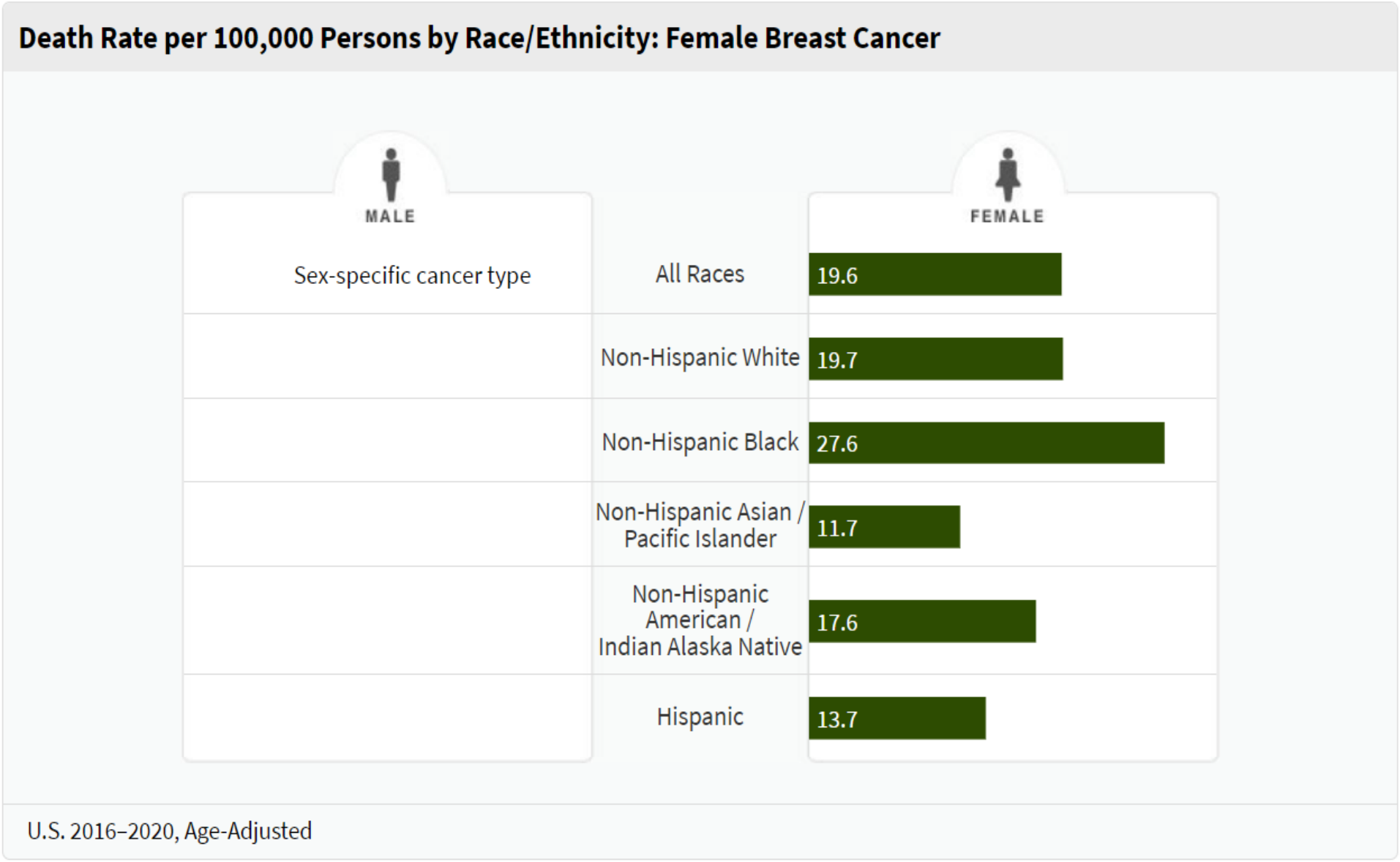
Death Rate per 100,000 Persons by Race/Ethnicity: Female Breast Cancer



Why are Black Women more likely to die from breast cancer?

- Diagnosed at younger age and later stage
- Higher incidence of BRCA1 and BRCA2 mutations
- Twice the incidence of aggressive, triple-negative breast cancers
- Differences in access to, and quality of, mammography and breast cancer treatment
- Less likely to have medical insurance
- Less likely to have the ability to take time off work for appointments
- Prevalence of risk factors, including being overweight and obesity
- Less likely to undergo surgery or radiation therapy
- Lack of trust between providers and their patients

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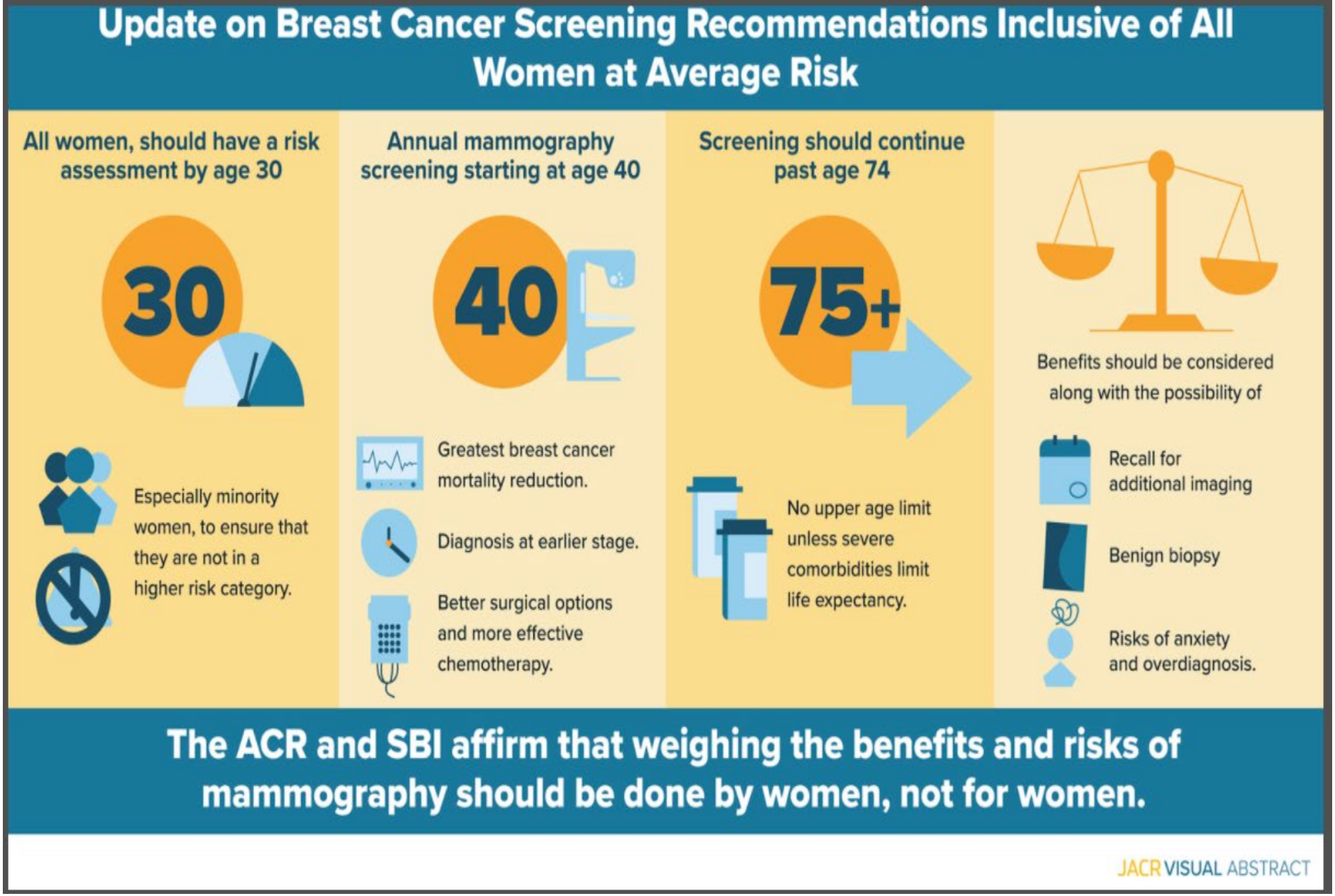

Monticciolo DL, Malak SF, Friedewald SM, Eby PR, Newell MS, Moy L, Destounis S, Leung JWT, Hendrick RE, Smetherman D. Breast Cancer Screening Recommendations Inclusive of All Women at Average Risk: Update from the ACR and Society of Breast Imaging. J Am Coll Radiol. 2021 Sep;18(9):1280-1288. doi: 10.1016/j.jacr.2021.04.021. Epub 2021 Jun 19. PMID: 34154984.

USPSTF

U.S. Preventive Services TASK FORCE

HOME RECOMMENDATIONS PUBLIC COMM

> Recommendation Topics > Recommendation: Breast Cancer: Screening

Last update was in 2016

Breast Cancer: Screening

An Update for This Topic is In Progress

Figure 1. Screening for breast cancer: clinical summary.

Annals of Internal Medicine

U.S. Preventive Services TASK FORCE
www.USPreventiveServicesTaskForce.org

Primary Screening for Breast Cancer With Conventional Mammography

Population	Women aged 40 to 49 y	Women aged 50 to 74 y	Women aged ≥75 y
Recommendation	The decision to start screening should be an individual one. Grade: C	Screen every 2 years. Grade: B	No recommendation. Grade: I statement (insufficient evidence)

Cervical Cancer

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Cervical Cancer

Statistics at a Glance

At a Glance

Estimated New Cases in 2022	14,100
% of All New Cancer Cases	0.7%

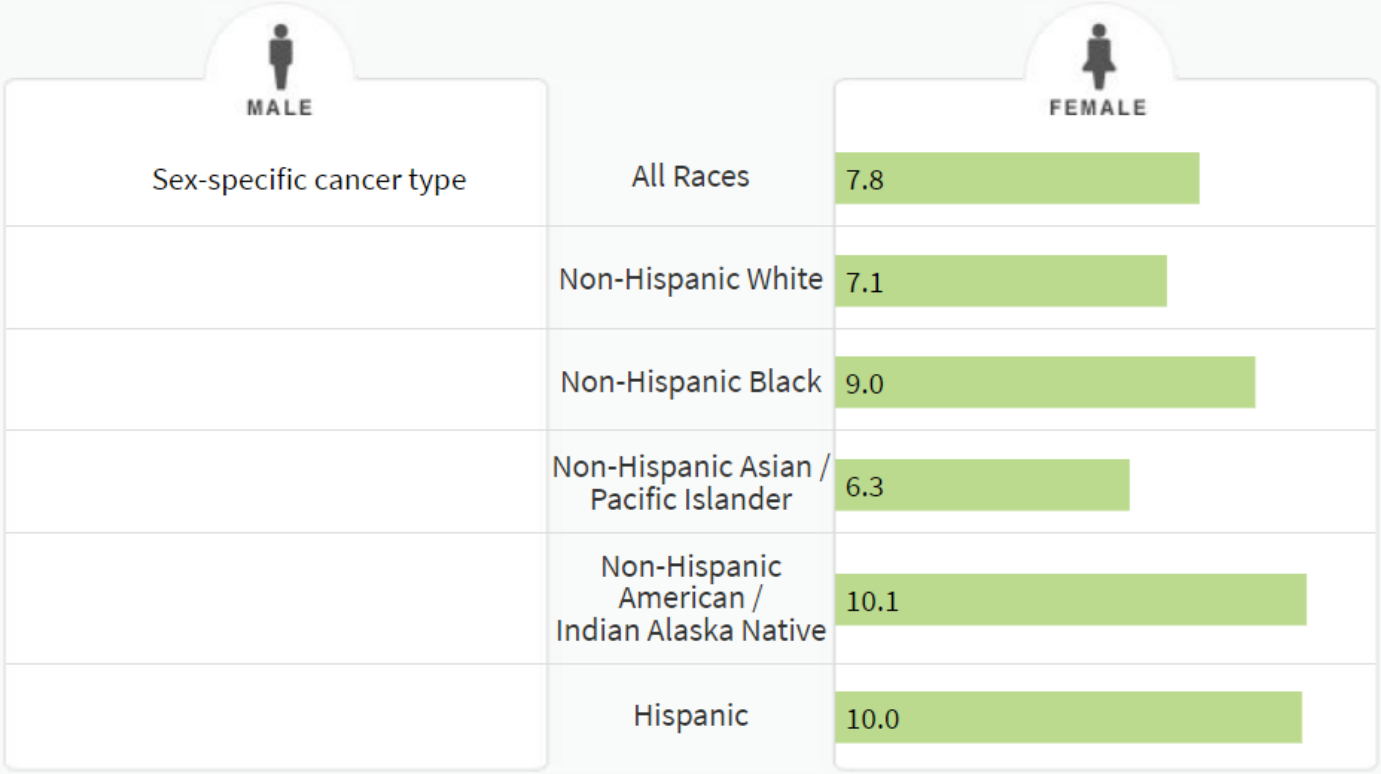
Estimated Deaths in 2022	4,280
% of All Cancer Deaths	0.7%

5-Year Relative Survival
66.7%
2012–2018

New cases come from SEER 12. Deaths come from U.S. Mortality.
All Races, Females. Rates are Age-Adjusted

Rate of New Cases per 100,000 Persons by Race/Ethnicity: Cervical Cancer

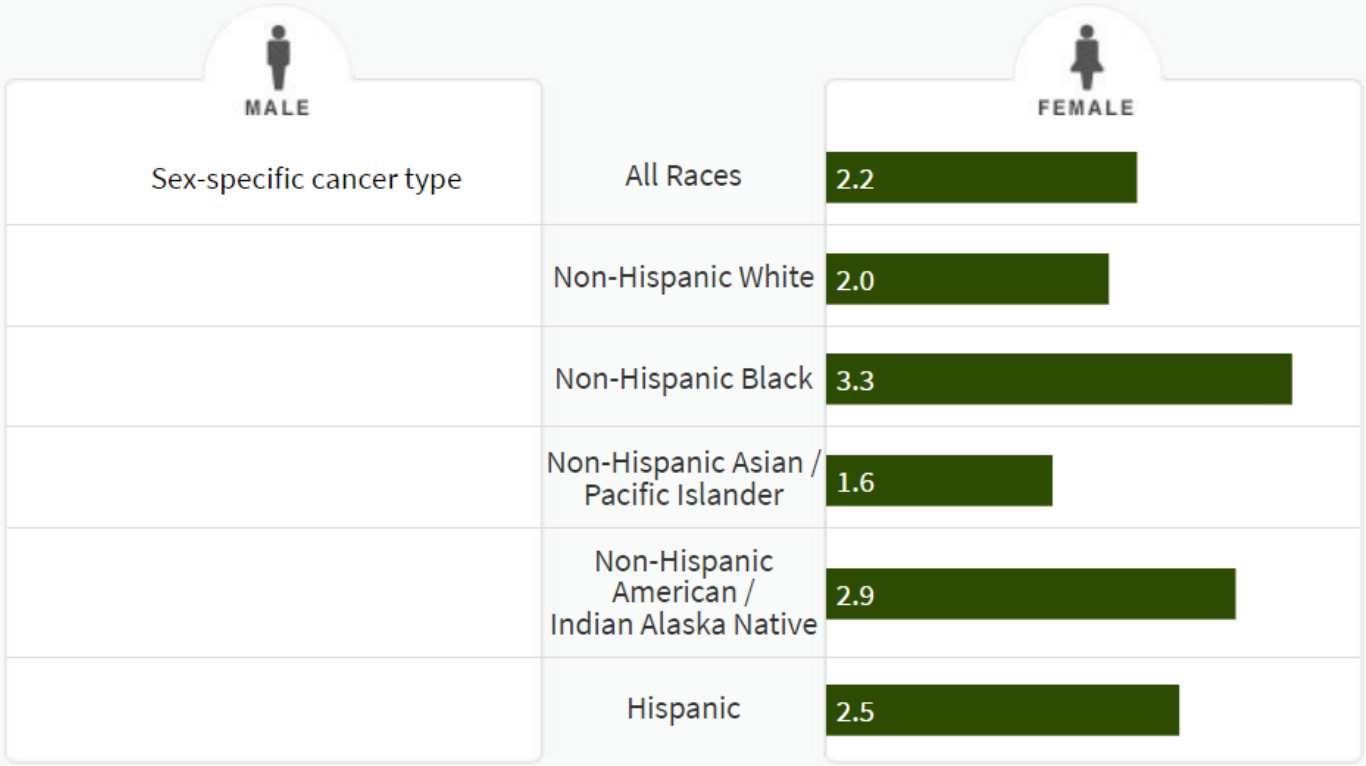
Rate of New Cases per 100,000 Persons by Race/Ethnicity: Cervical Cancer



SEER 22 2015–2019, Age-Adjusted

Death Rate per 100,000 Persons by Race/Ethnicity: Cervical Cancer

Death Rate per 100,000 Persons by Race/Ethnicity: Cervical Cancer



U.S. 2016–2020, Age-Adjusted

Why are Black women more likely to die from cervical cancer

- Higher rate of adenocarcinoma compared to squamous cell carcinoma
- Adenocarcinoma associated with a worse prognosis and survival
- Inadequate access to preventive services
- More likely to present at a later stage at diagnosis
- More likely to be lower-income and uninsured

Why are Black women more likely to die from cervical cancer cont.

- Lower likelihood of being offered and receiving appropriate or aggressive treatment
- Lower HPV vaccination series initiation and completion rates
- Cultural differences (modesty, fatalism, prohibitions against examination by male providers), competing life priorities (e.g., fulfilling work and family responsibilities) and mistrust of the health care system may play a role.

Colorectal Cancer

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Colorectal Cancer

Statistics at a Glance

At a Glance

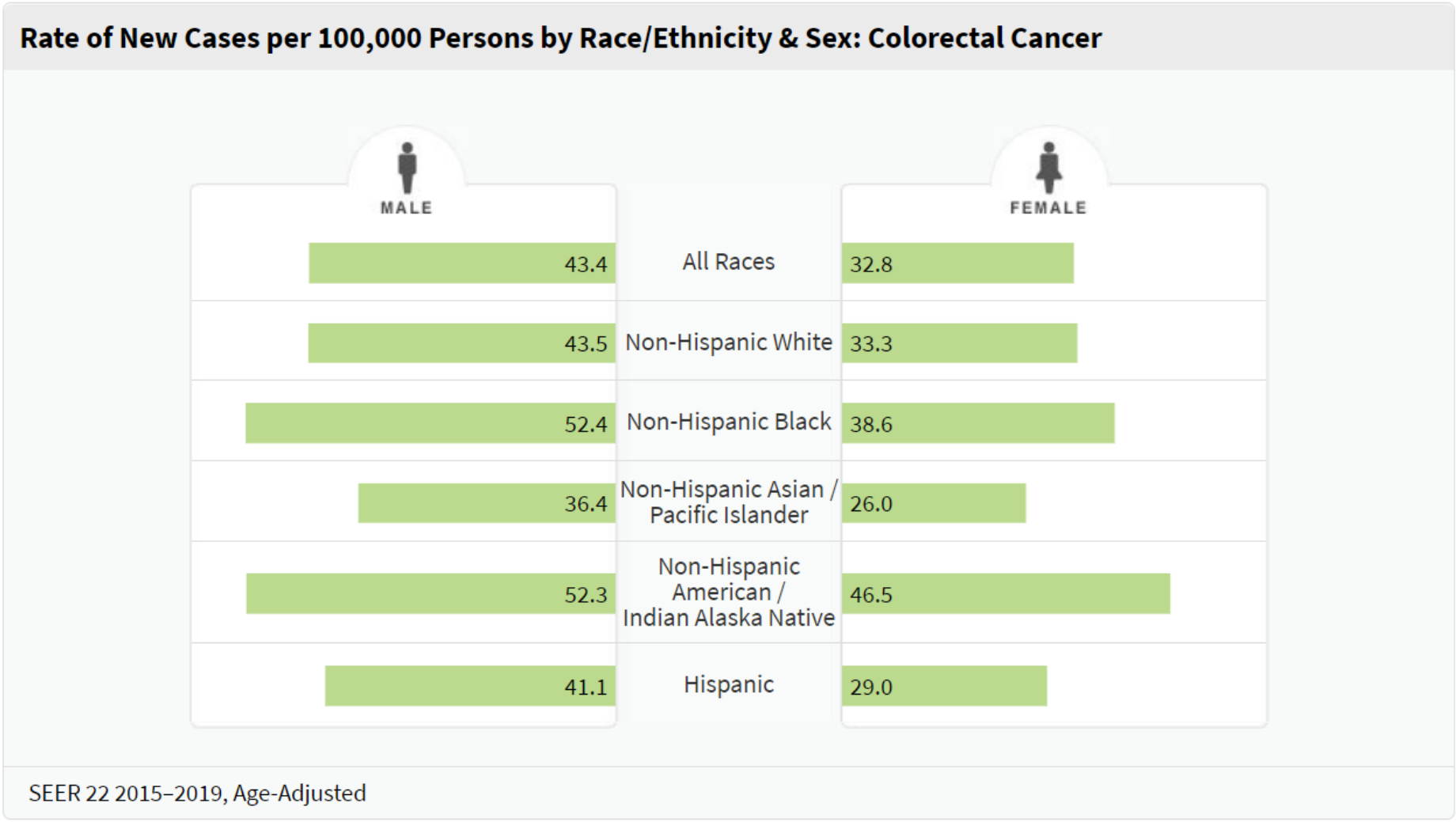
Estimated New Cases in 2022	151,030
% of All New Cancer Cases	7.9%

Estimated Deaths in 2022	52,580
% of All Cancer Deaths	8.6%

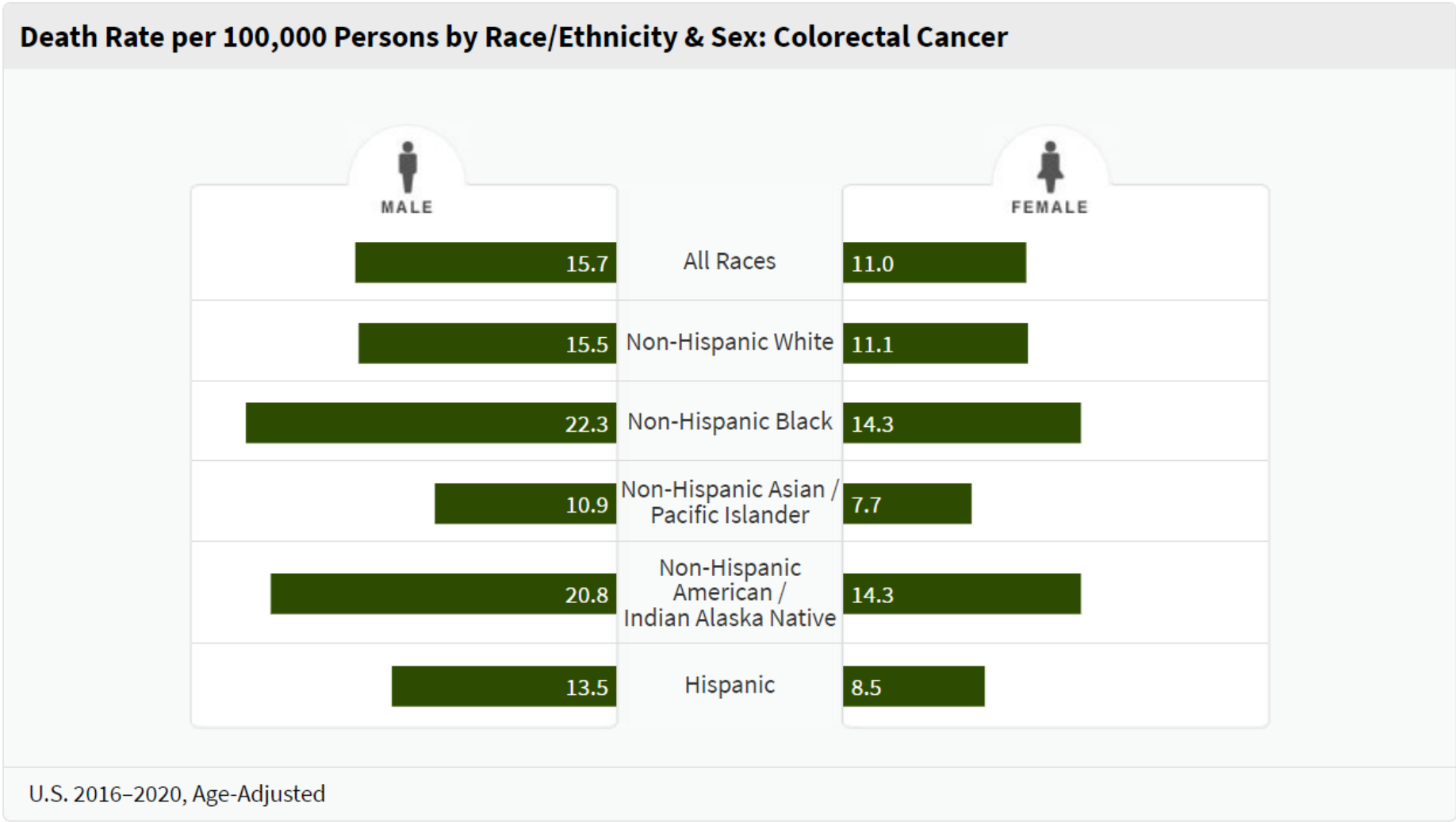
5-Year Relative Survival
65.1%
2012–2018

New cases come from SEER 12. Deaths come from U.S. Mortality.
All Races, Both Sexes. Rates are Age-Adjusted.

Rate of New Cases per 100,000 Persons by Race/Ethnicity & Sex: Colorectal Cancer



Death Rate per 100,000 Persons by Race/Ethnicity & Sex: Colorectal Cancer



Why are Black Americans more likely to die from colorectal cancer?

- Often diagnosed with CRC at an earlier age and with more advanced disease
- Greater proportion of CRCs in the proximal (right-sided) colon
- Decreased access to screening and care
- Less likely to be recommended the right care for the type and stage of their cancer
- Fear of cancer and its treatment, costs, and the burdens of transportation and childcare during therapy
- Prevalence of risk factors

Maternal Mortality

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Pregnancy-Related Death

- Pregnancy-related deaths occurred during pregnancy, delivery, and up to a year postpartum.
- The leading cause of pregnancy related death varied by race and ethnicity.
- Over 80% of pregnancy-related deaths were determined to be preventable
- Among pregnancy-related deaths with information on place of last residence 82% of decedents lived in urban counties

Trost SL, Beauregard J, Njie F, et al. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022.

Maternal Mortality

In the United States, Black women are three times more likely to die from a pregnancy-related cause than White women

Multiple factors contribute to these disparities, such as variation in quality healthcare, underlying chronic conditions, structural racism, and implicit bias.

Black Maternal Health Week is recognized each year from April 11-17 to bring awareness to Black maternal health.

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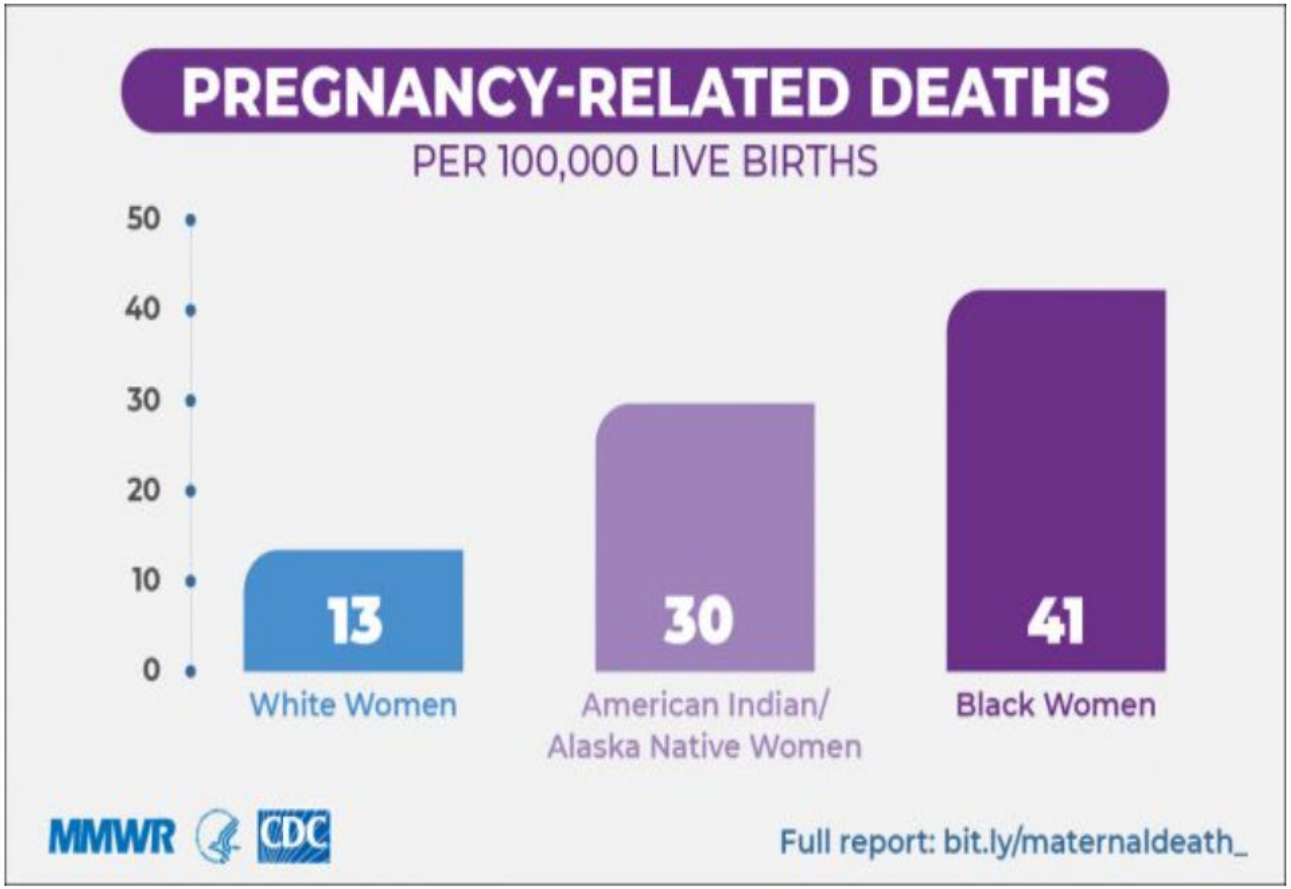
Maternal Mortality by Racial/Ethnic Groups



From 2007 to 2016, in the U.S. Black and American Indian/Alaska Native women experienced higher pregnancy related mortality than all other racial/ethnic groups

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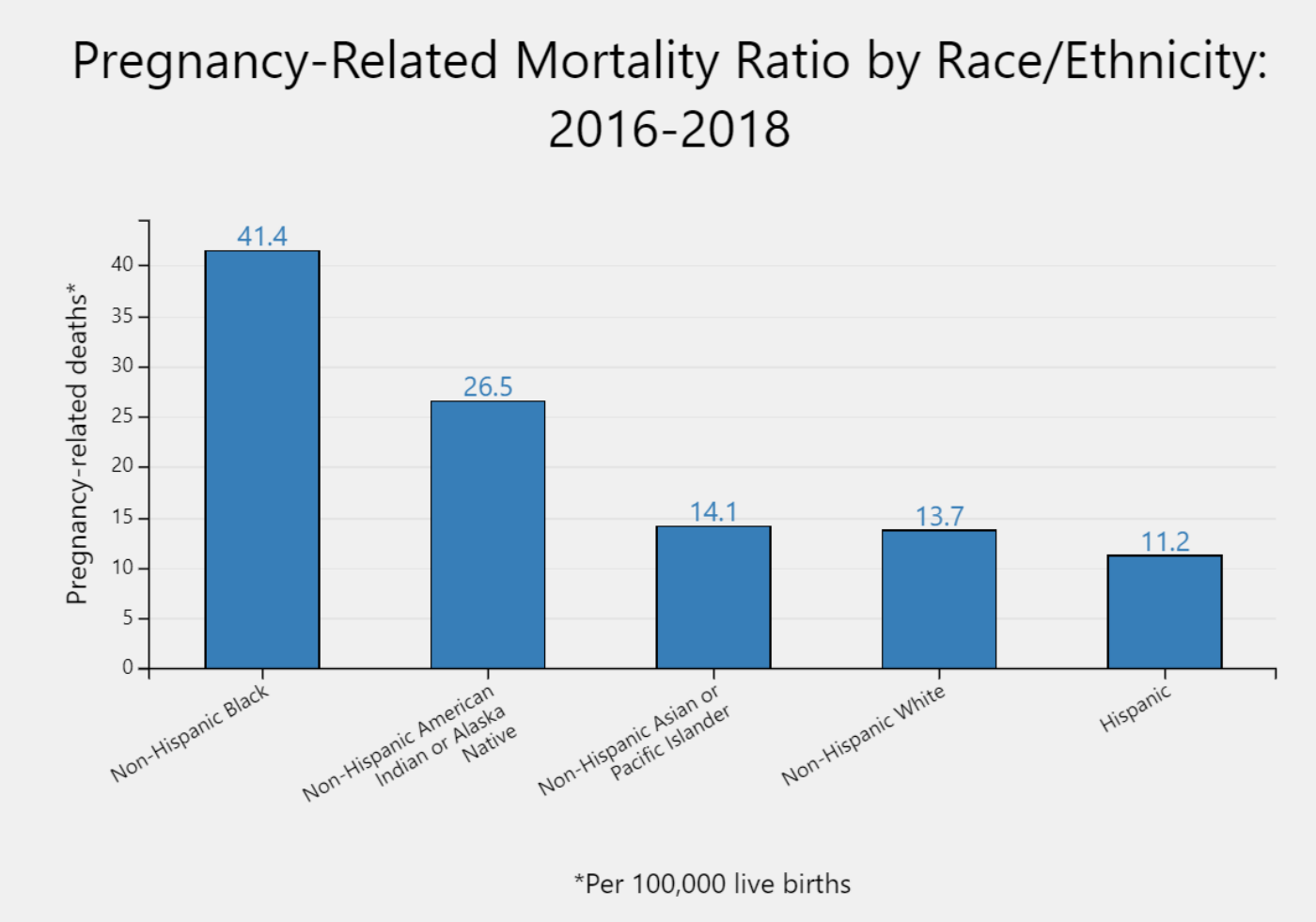
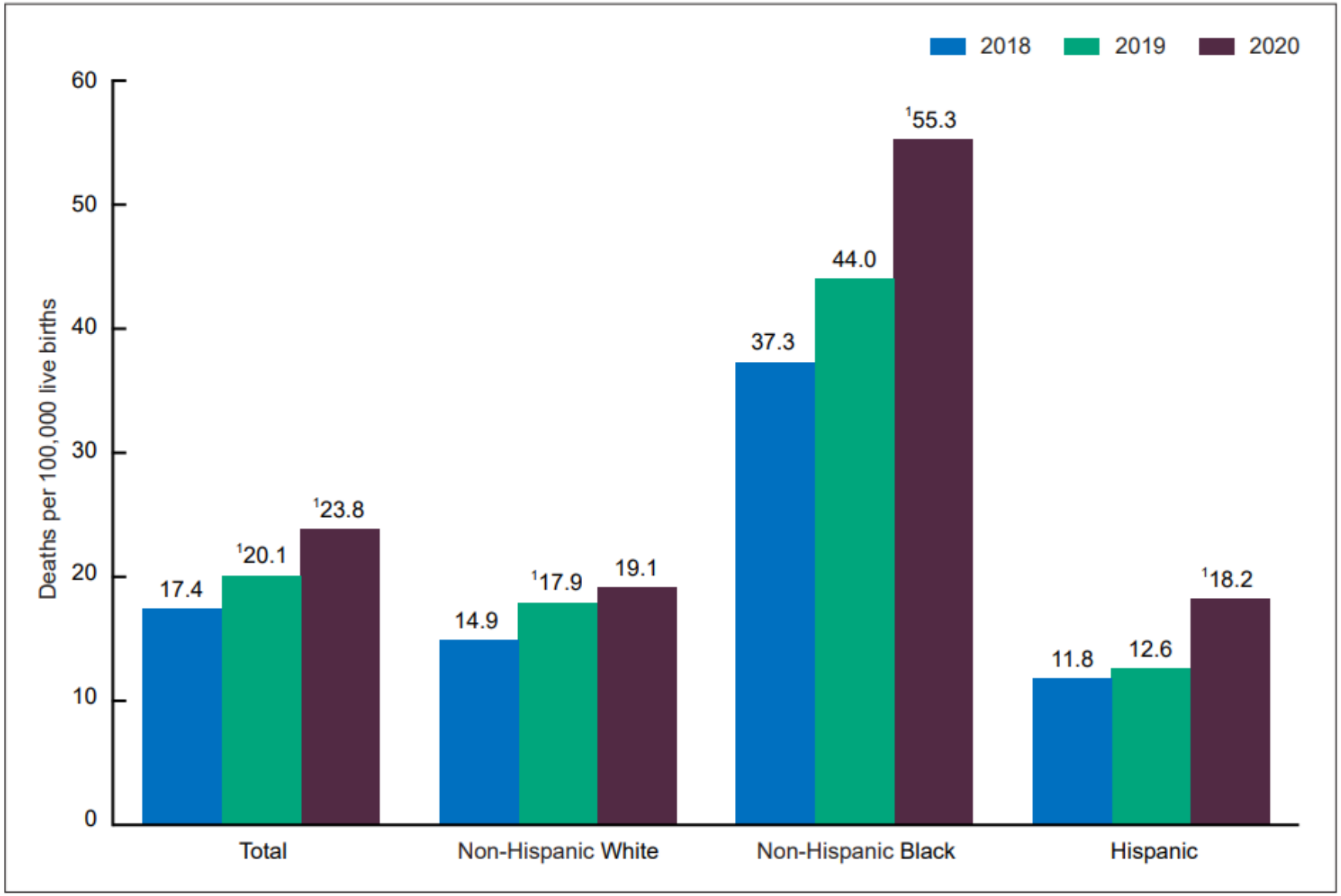
Maternal Mortality by Racial/Ethnic Groups



From 2016 to 2018, in the U.S. Black and American Indian/Alaska Native women experienced higher pregnancy related mortality than all other racial/ethnic groups

Figure 1. Maternal mortality rates, by race and Hispanic origin: United States, 2018–2020



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

Causes of Maternal Mortality

Cardiomyopathy, thrombotic pulmonary embolism, and hypertensive disorders of pregnancy contributed to a significantly higher proportion of pregnancy-related deaths among Black women than among white women.

Hemorrhage and hypertensive disorders of pregnancy contributed to a higher proportion of pregnancy-related deaths among AI/AN women than among White women.

Causes of disparities in Maternal Mortality

Differences in access to and quality of care including specialist providers, during preconception, pregnancy, and the postpartum period

Prevalence of chronic diseases e.g., hypertension is more prevalent and less well controlled in Black women

Gaps in health care coverage and preventive care, lack of coordinated health care, and social services

Challenges with securing transportation or time off for medical visits

Inadequate housing

Part I Summary

- Cancer deaths and maternal mortality are characterized by stark disparities for racial/ethnic minorities
- Implicit bias and social determinants of health contribute to these disparities
- Take the Race Implicit Association Test
- Work to build trust with your patients
- Consider social determinants of health in every patient encounter and connect patients to your social work team

Outcome Differences in Women of Color Part II

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Pain Management

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False ideas about Black people…

"Black people's nerve endings are less sensitive than white people's."

"Black people's skin is thicker than white people's."

"Black people's blood coagulates more quickly than white people's."

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…can lead to worrisome treatment disparities

Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites

Kelly M. Hoffman, Sophie Trawalter, Jordan R. Axt, and M. Norman Oliver

+ See all authors and affiliations

PNAS April 19, 2016 113 (16) 4296-4301; first published April 4, 2016; https://doi.org/10.1073/pnas.1516047113

Edited by Susan T. Fiske, Princeton University, Princeton, NJ, and approved March 1, 2016 (received for review August 18, 2015)

"Black Americans are systematically undertreated for pain relative to White Americans"

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The American Journal of Emergency Medicine

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REVIEW | VOLUME 37, ISSUE 9, P1770-1777, SEPTEMBER 01, 2019

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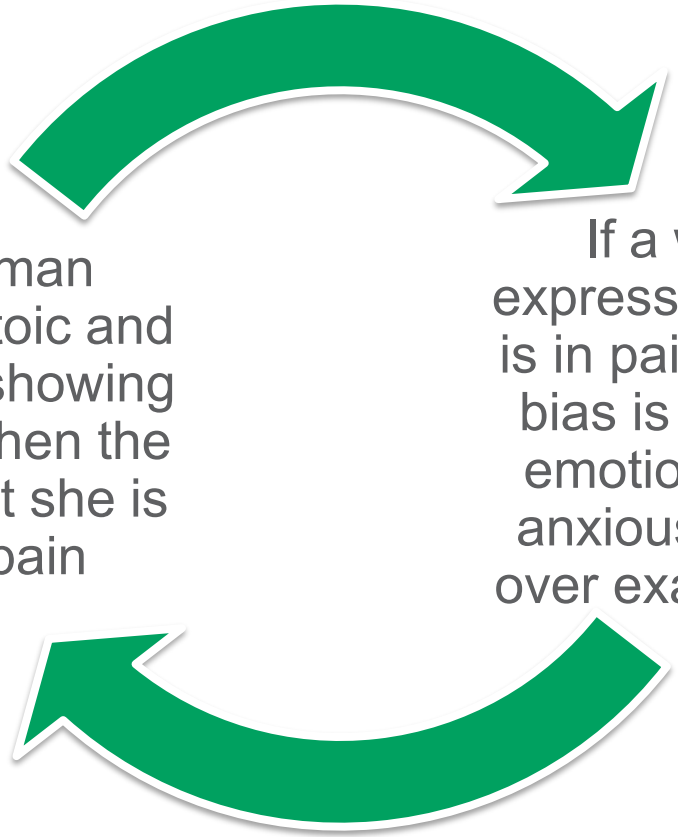
Racial and ethnic disparities in the management of acute pain in US emergency departments: Meta-analysis and systematic review

Paulyne Lee • Maxine Le Saux • Rebecca Siegel • ... Chen Chen • Yan Ma •
Andrew C. Meltzer • Show all authors

Published: June 05, 2019 • DOI: https://doi.org/10.1016/j.ajem.2019.06.014 • Check for updates

"Black patients were 40% less likely to receive medication for acute pain compared to White patients, and 34% less likely to be prescribed opioids."

False ideas about women and pain



Implicit Racial Bias in Healthcare

Most health care providers appear to have implicit bias in terms of positive attitudes toward Whites and negative attitudes toward People of Color

Levels of implicit bias against Black, Hispanic/Latino/Latina, and dark-skinned people were relatively similar across these groups

Implicit racial bias in the health care system can affect patient-provider interactions, treatment decisions, patient adherence to recommendations, and patient health outcomes

Cardiovascular disease

State of disparities in cardiovascular health in the United States

Among Medicare enrollees,

- Congestive heart failure hospitalization was higher in Black Americans, Hispanics, and American Indians/Alaska Natives than among Whites
- Stroke hospitalization was highest in Black Americans

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JAHA Spotlight on Racial and Ethnic Disparities in Cardiovascular Disease

Sula Mazimba, and **Pamela N. Peterson**

Originally published 25 Aug 2021 | https://doi.org/10.1161/JAHA.121.023650 |
Journal of the American Heart Association. 2021;10:e023650

"The burden of cardiovascular disease in Black communities remains disproportionately high and is a primary cause of disparities in life expectancy between Black and White individuals. Approximately 30% of the mortality difference between Black and White men and 40% of the difference between Black and White women is driven by disparities in CVD outcomes"

American Heart Association®

Cardiovascular diseases kill nearly 50,000 African American women annually.

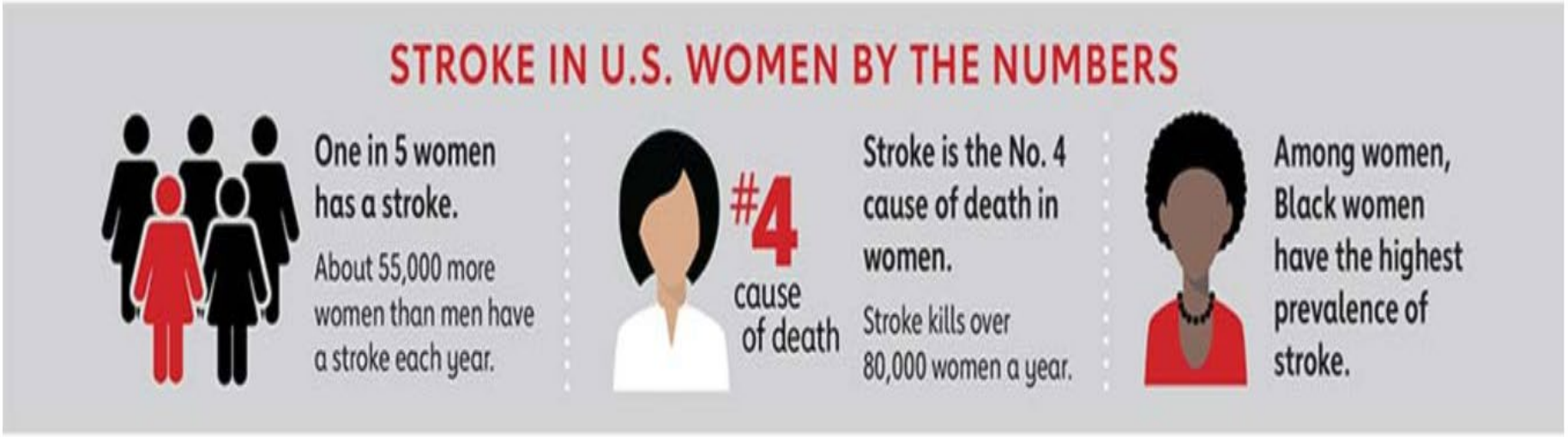
Of African American women ages 20 and older, 49 percent have heart diseases.

Only 1 in 5 African American women believes she is personally at risk.

Only 58% of African American women are aware of the signs and symptoms of a heart attack.

Only 36% of African American women know that heart disease is their greatest health risk.

Women face higher risk of stroke



Black women in their 50s may have more than triple the risk of stroke compared with White women of the same age, according to a 2019 study.

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Causes of disparities in CVD

- Diabetes, smoking, high blood pressure, high blood cholesterol, physical inactivity, obesity and a family history of heart disease are all greatly prevalent among African Americans and are major risk factors for heart disease and stroke.
- Lack of access to high quality healthcare
- Bias, stereotyping, and prejudice against underrepresented minority populations presenting with cardiovascular symptoms
- Structural and social inequities, which cause increased stress and distrust in the medical system
- Lack of nutritious food options

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Thank You!
Questions?

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