Ethnic Disparities & Breast Cancer Screening: The ABC's

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Nothing to disclose

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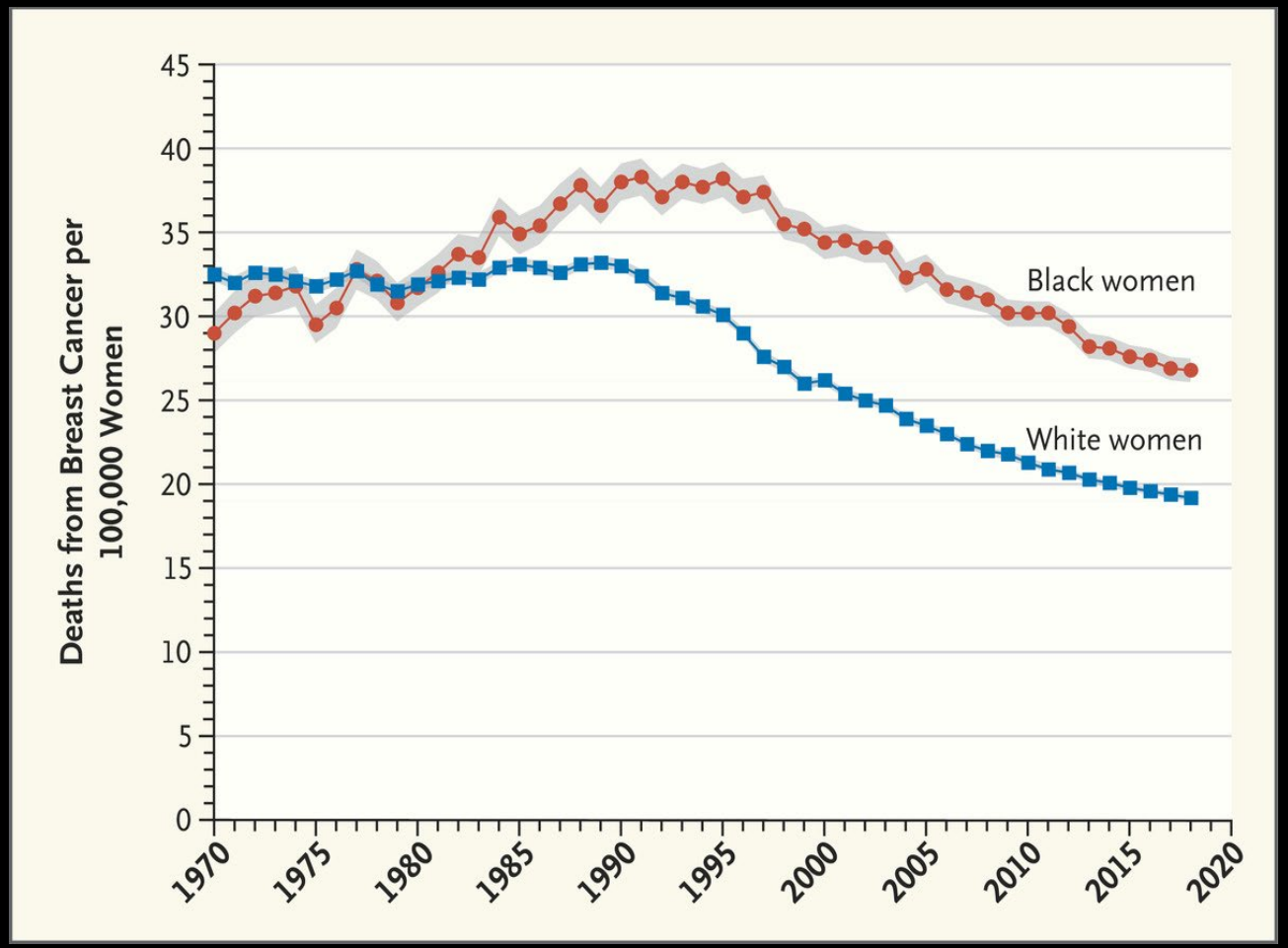
US Breast Cancer Mortality Rate 1970 - 2020



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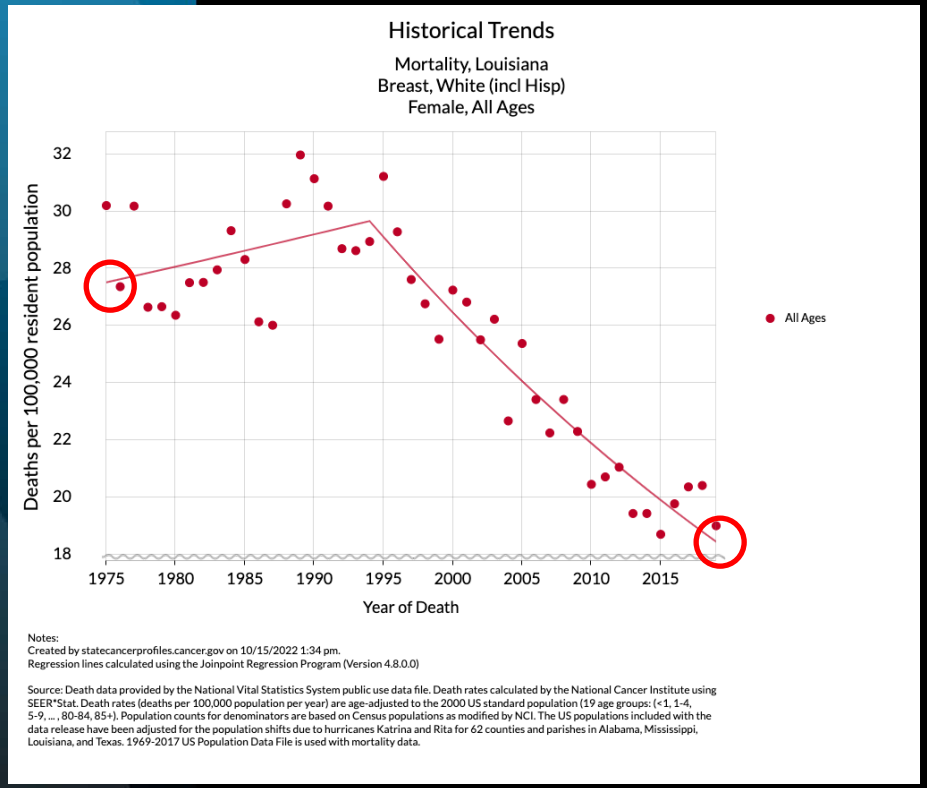
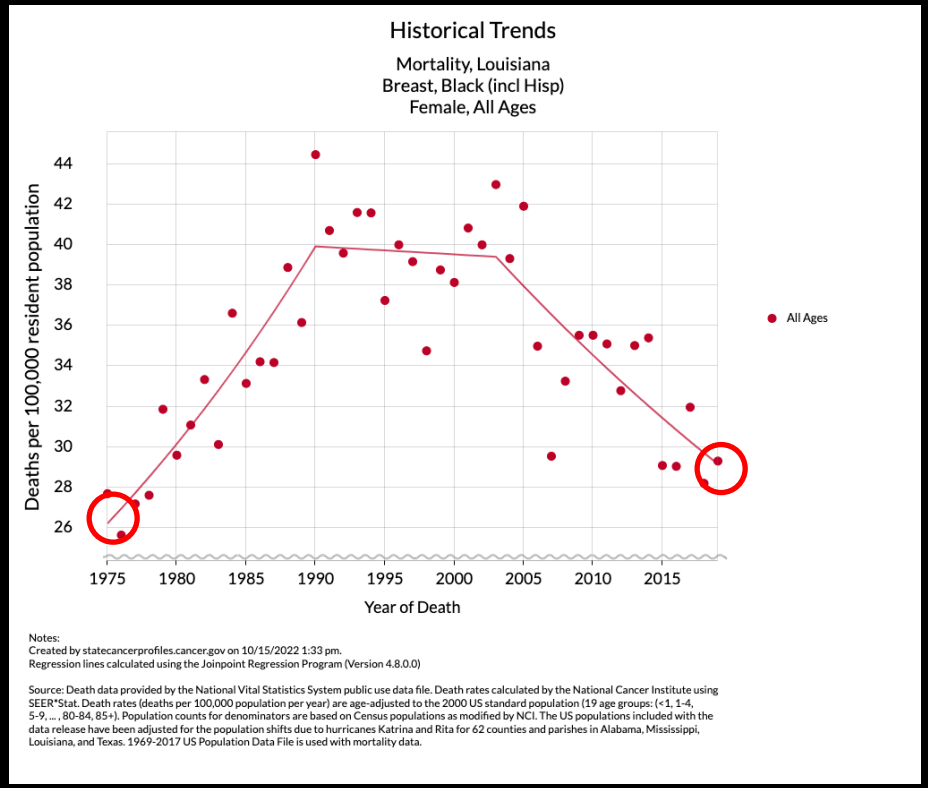
The NEW ENGLAND JOURNAL of MEDICINE

LA Breast Cancer Mortality 1975 - 2020





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Access

Biology

Covid

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Access

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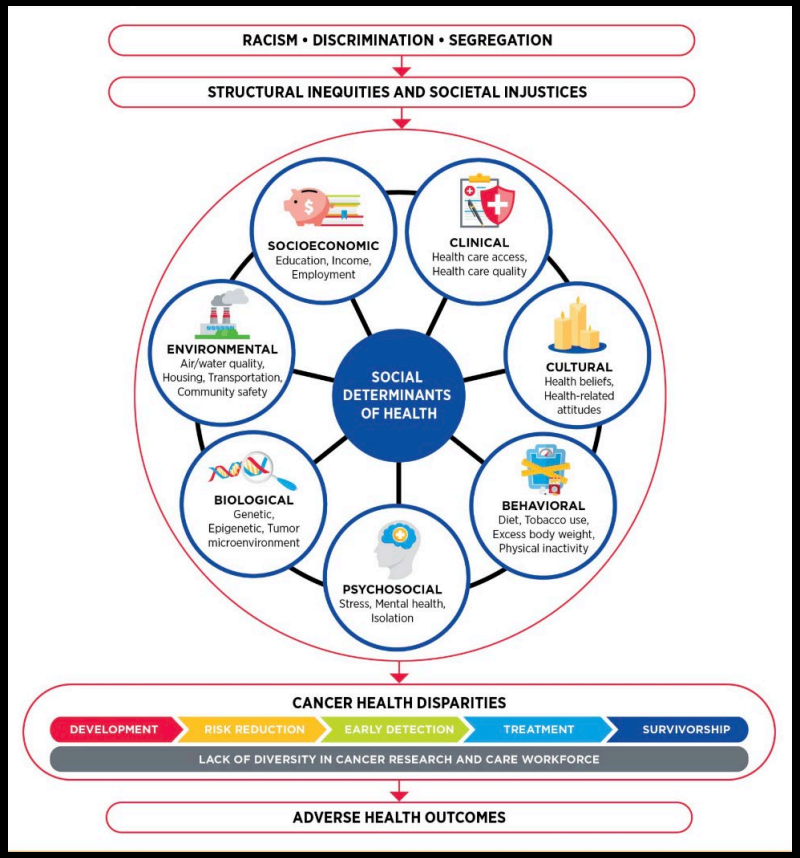
Access

- **Many social determinants of health affect access to breast cancer care & treatment:**
  - Poverty
  - Neighborhood disadvantage & transportation access
  - Segregation
  - Access to primary care
  - Health system & provider inadequacies



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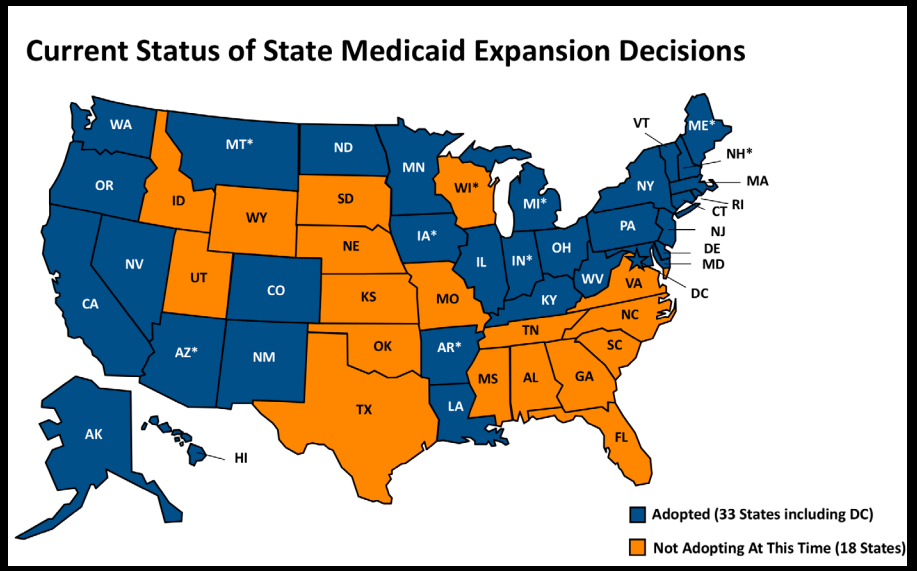
Access

- African American & Hispanic women are more likely to be uninsured than White women
- Uninsured and underinsured women:
  - More likely to present with advanced disease
  - Less likely to undergo screening, receive adjuvant therapy, & survive breast cancer
- After Medicaid expansion, advanced stage breast cancer fell:
  - 2.5% across all races in expansion vs. 0.7% in non-expansion states
  - 3% in African American patients in expansion states vs. no change in non-expansion states



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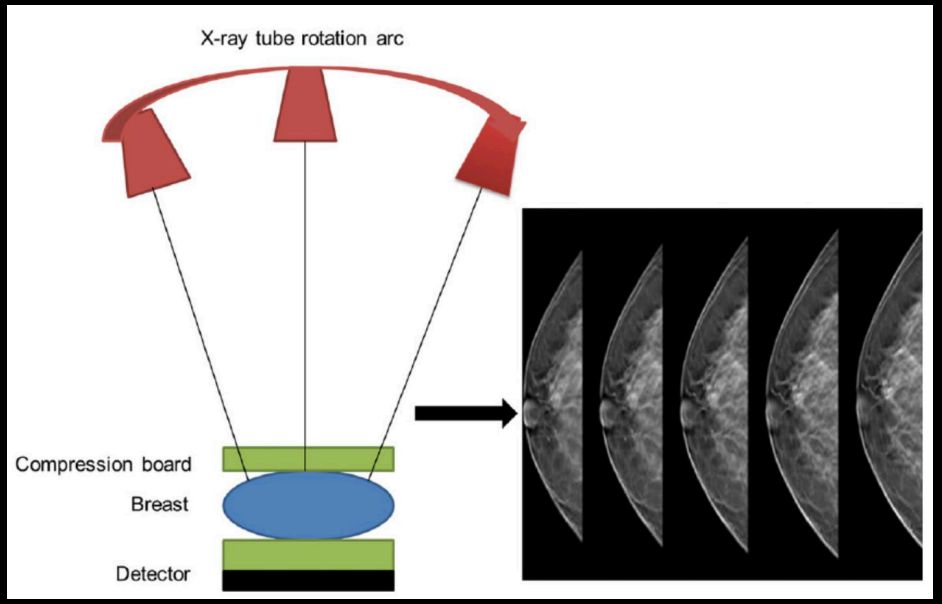
Access

- African American & Hispanic women are more likely to have mammograms at facilities that are not:
  - ACR BICOE
  - Associated with academic medical centers
  - Equipped with advanced technology (DBT)
  - Staffed with fellowship-trained radiologists
- DBT adoption:
  - Lower socioeconomic status was associated with decreased and delayed access
  - Even facilities with both DBT & FFDM used DBT less frequently in individuals of lower socioeconomic status
    - Relative risk 0.79 - non–high school vs college graduates
    - Relative risk 0.89 - bottom vs top income quartiles
    - Relative risk 0.83 - African American vs White women



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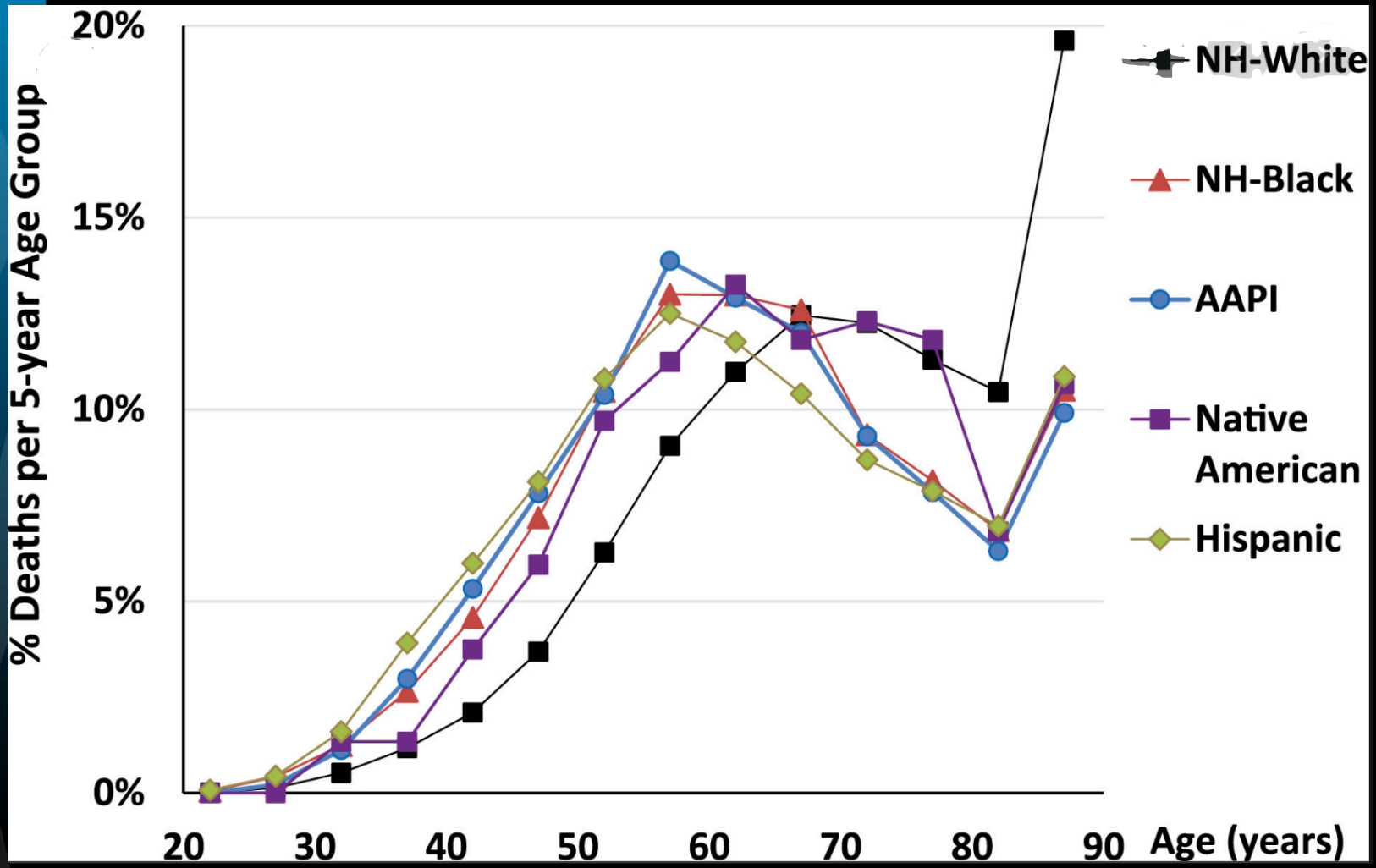
Biology

Hendrick et al (*Cancer*, 2021)

SEER Data



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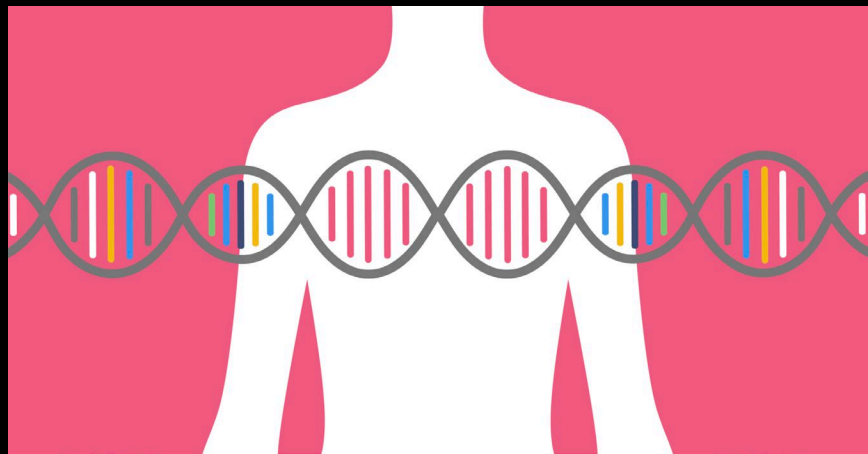
Biology

- Results of genetic studies are mixed
- Some research shows higher BRCA 1 & 2 & other gene mutations in NHB women
- One study (Weitzel et al) demonstrated deleterious BRCA mutations in 25% of Hispanic patients with breast &/or ovarian cancer
- Another study found similar prevalence of BRCA mutations patients of African, Asian, White, & Hispanic descent



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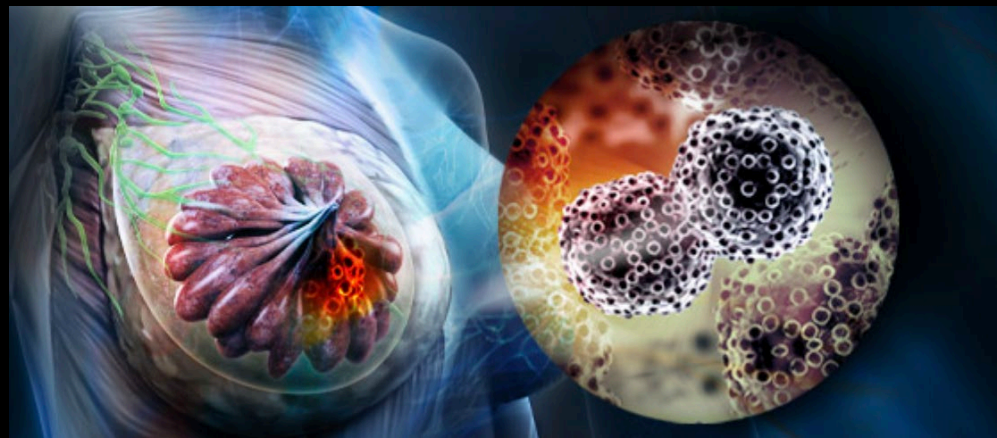
Biology

- Higher % of ER/PR+ tumors in NHW
  - 71.6% vs 53%
- NHB women present with more “triple negative” tumors
  - More aggressive
  - Do not respond to therapies targeted to hormone receptors
- Regardless of age, NHB women present with higher grade tumors than NHW women



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COVID

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Multiple Studies of COVID's Impact on Cancer Screening & Care

ORIGINAL ARTICLE

Check for updates

Impact of the Coronavirus Disease 2019 (COVID-19) Pandemic on Imaging Case Volumes

Jason J. Naidich, MD, MBA[a,b,e], Artem Boltyenkov, PhD, MBA[c,d], Jason J. Wang, PhD[e], Jesse Chusid, MD, MBA[f,g], Danny Hughes, PhD[h,i], Pina C. Sanelli, MD, MPH[e,j,k]

Patient-reported treatment delays in breast cancer care during the COVID-19 pandemic

Elizabeth Lerner Papautsky, Tamara Hamlish

University of Illinois at Chicago

JAMA Network Open

Research Letter | Oncology

Changes in the Number of US Patients With Newly Identified Cancer Before and During the Coronavirus Disease 2019 (COVID-19) Pandemic

Harvey W. Kaufman, MD; Zhen Chen, MS; Justin Niles, MA; Yuri Fesko, MD

The impact of the COVID-19 pandemic on cancer deaths due to delays in diagnosis in England, UK: a national, population-based, modelling study

Camille Maringe, James Spicer, Melanie Morris, Arnie Purushotham, Ellen Nolte, Richard Sullivan, Bernard Rachet, Ajay Aggarwal**

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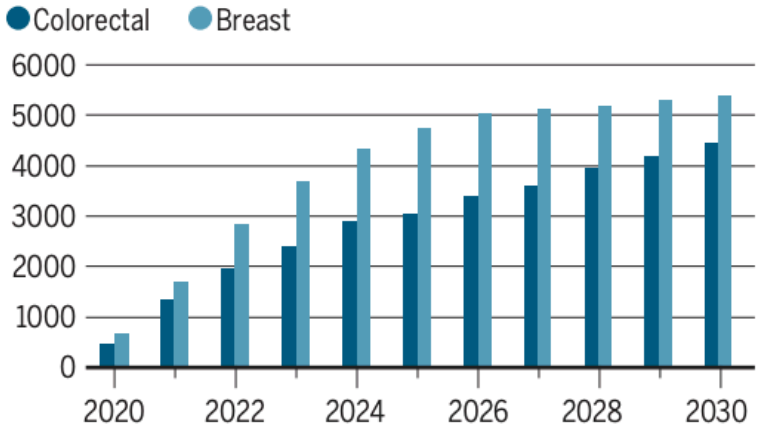
Multiple Studies of COVID's Impact on Cancer Screening & Care

EDITORIAL

Norman E. Sharpless is director of the U.S. National Cancer Institute, Bethesda, MD, USA. norman.sharpless@nih.gov

COVID-19 and cancer

Modeled cumulative excess deaths from colorectal and breast cancers, 2020 to 2030*



letely for re- c, and ountry ic has ıe can- l slow- entists activi- r. The is only prog- en the basic anges ects of y may ı can- years y the com- nmen- itigate cantial ational I), for to ad-

and surgeries have been de- dress this challenge (see prioritized to preserve clinical capacity for COVID-19 patients. For example, some patients are receiving www.cancer.gov). The NCI has worked with the U.S. Food and Drug Administration to increase flexibility

Effects of the COVID-19 Pandemic on Cancer-Related Patient Encounters

Jack W. London, PhD[1]; Elnara Fazio-Eynullayeva, MA[2]; Matvey B. Palchuk, MD, MS[2]; Peter Sankey, MBChB[3]; and Christopher McNair, PhD[1]

Estimating excess mortality in people with cancer and multimorbidity in the COVID-19 emergency

Alvina G. Lai, Ph.D.[1,2,✉], Laura Pasea, Ph.D.[1,2*], Amitava Banerjee, DPhil[1,2,3*], Spiros Denaxas, Ph.D.[1,2,6,7], Michail Katsoulis, Ph.D.[1,2], Wai Hoong Chang, MSc[1,2], Bryan Williams, Ph.D.[4,5,6], Deenan Pillay, Ph.D.[8], Mahdad Noursadeghi, Ph.D.[8], David Linch, FMedSci[6,9], Derralynn Hughes, FRCPath[10,11], Martin D. Forster, Ph.D.[4,10], Clare Turnbull, Ph.D.[12], Natalie K. Fitzpatrick, MSc[1,2], Kathryn Boyd, MD[13], Graham R. Foster, Ph.D.[14], DATA-CAN[15], Matt Cooper, Ph.D.[15], Monica Jones, PGDip[15], Kathy Pritchard-Jones, FMedSci[15,16,17,18], Richard Sullivan, Ph.D.[19], Geoff Hall, Ph.D.[15,20,21], Charlie Davie, FRCP[11,15,16], Mark Lawler, Ph.D.[15,22], and Harry Hemingway, FMedSci[1,2,6,✉]

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COVID

- African American & Hispanic women are more likely to:
  - Live in poverty
  - Need to travel to access healthcare (screening & treatment)
  - Be unable to take time off from work for healthcare needs
- Pandemic centered in metropolitan areas where racial & ethnic minorities are more highly concentrated
- Hispanics & other communities of color accounted for a disproportionate share of job loss (23%) due to pandemic
- Increased unemployment & reliance on public transportation (limited due to pandemic) may have further hindered access to screening & treatment services
- Most vulnerable may be least likely to continue treatment or remain connected to care

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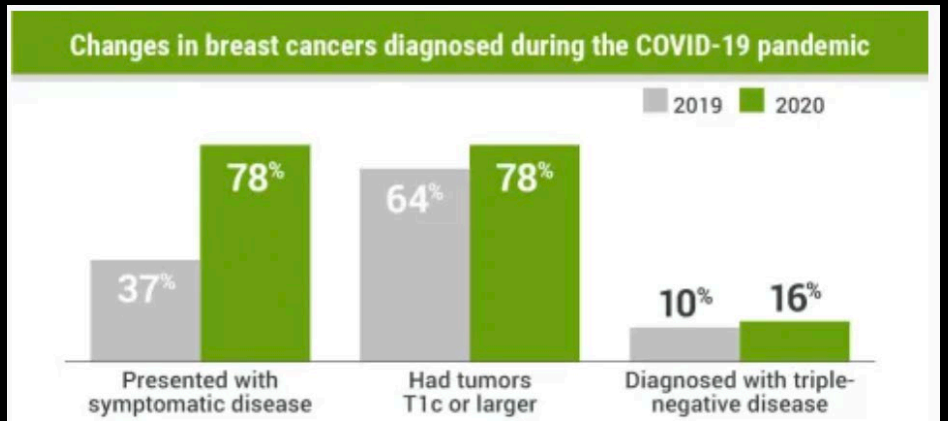
COVID

- Breast cancer often sub-clinical at diagnosis & discovered at screening
- During resource constraints or societal crises, patients with undetected sub-clinical cancers may be at increased risk of no, delayed, or sub-optimal treatment due to false sense of nonurgency or changing priorities
- Cancellation & deferral of screening due to pandemic could also impact disease presentation and treatment options
- Patients with biologically more aggressive disease (such as triple-negative breast cancer) may have a greater adverse effect of delayed diagnosis



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Conclusion

- There are clear racial & ethnic disparities in breast cancer outcomes in the US.
- The underlying causes are complex, multifactorial, & not fully understood.
- These disparities have likely been exacerbated by the COVID-19 pandemic.
- Screening guidelines that begin at a later age &/or have longer intervals between screens place minority women at a disproportionately greater disadvantage for breast cancer mortality.

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