

O'NEILL SCHOOL OF PUBLIC & ENVIRONMENTAL AFFAIRS



# Future of Cancer Health Economics -Equity Angles

**Kosali Simon**

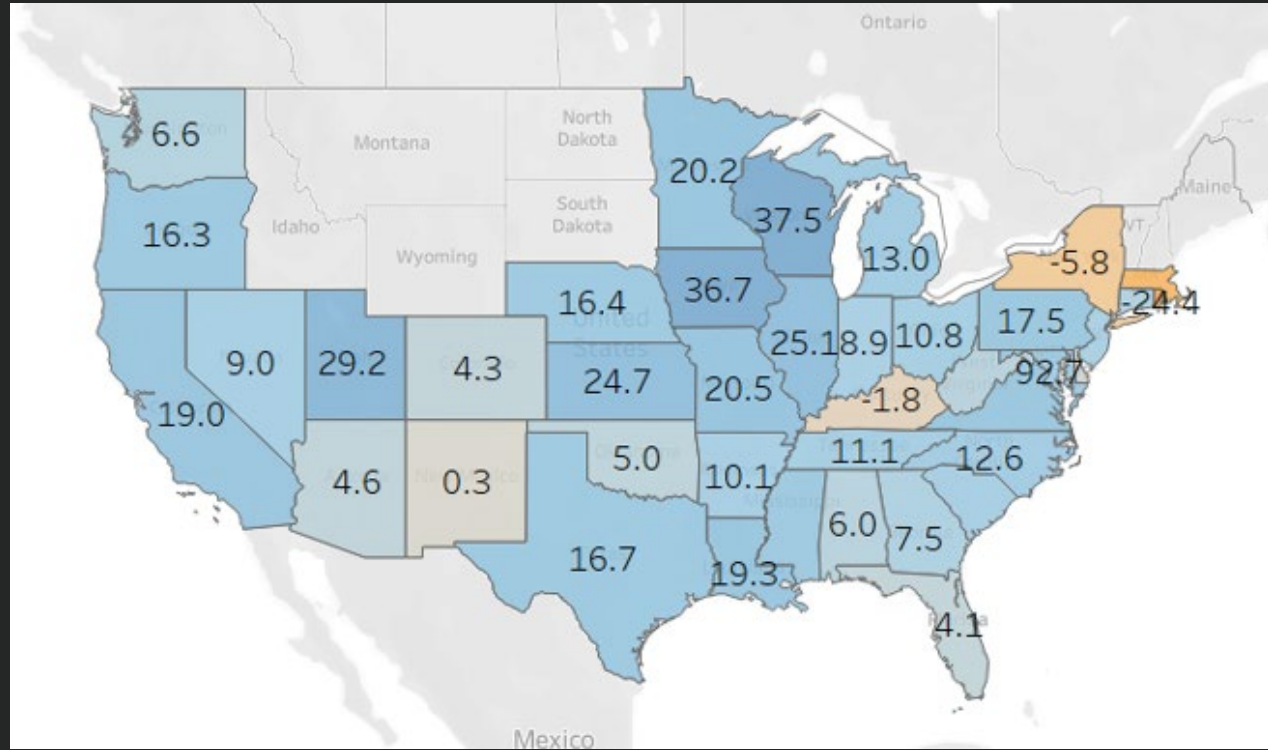
INDIANA UNIVERSITY BLOOMINGTON

## Black-White 2018 Cancer Mortality Gap by State

2018: Blacks died of cancer at a rate that is 12.2% higher than Whites

Black-White Cancer Mortality Gap varies a lot across states

Highest in Washington DC  
Lowest in Rhode Island



Author created from sources on next slide. Age adjusted. Underlying cause of death is malignant neoplasms (ICD



# Source: Kaiser Family Foundation

<https://www.kff.org/other/state-indicator/cancer-death-rate-by-raceethnicity/?activeTab=map&currentTimeframe=0&selecte>

**Notes:** (1) NSD for Maine, North Dakota, South Dakota, N/A for Idaho, Montana, New Hampshire, Vermont, Wyoming

Age-adjusted rates per 100,000 U.S. standard population. Since death rates are affected by the population composition of a given area, age-adjusted death rates should be used for comparisons between areas because they control for differences in population composition.

Underlying cause of death is malignant neoplasms (ICD-10 codes: C00-C97).

Excludes other : Native American, Alaska Native, Pacific Islander, and Asian

All categories of race include people of Hispanic origin.

Race and Hispanic origin are reported separately on the death certificates.

## Sources

Centers for Disease Control and Prevention, National Center for Health Statistics.

Underlying Cause of Death 1999-2018 on [CDC WONDER Online Database] (<http://wonder.cdc.gov/>), released 2020.

Data are from the Multiple Cause of Death Files,

Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on February 18, 2020.

## Definitions

\*NSD\*: Not Sufficient Data. Data are unavailable for confidentiality reasons or due to

\*N/A\*: Data not available due to suppression constraints. For more information, ple

State	Rate
DC	92.7
Wisconsin	37.5
Iowa	36.7
Utah	29.2
Illinois	25.1
Kansas	24.7
Missouri	20.5
Minnesota	20.2
Louisiana	19.3
California	19
Virginia	17.7
Pennsylvania	17.5
Texas	16.7
Nebraska	16.4
Oregon	16.3
Mississippi	16
Maryland	15.7
Michigan	13
North Carolina	12.6
Tennessee	11.1
Ohio	10.8
Arkansas	10.1
South Carolina	9.7
Nevada	9
Indiana	8.9
New Jersey	8.3

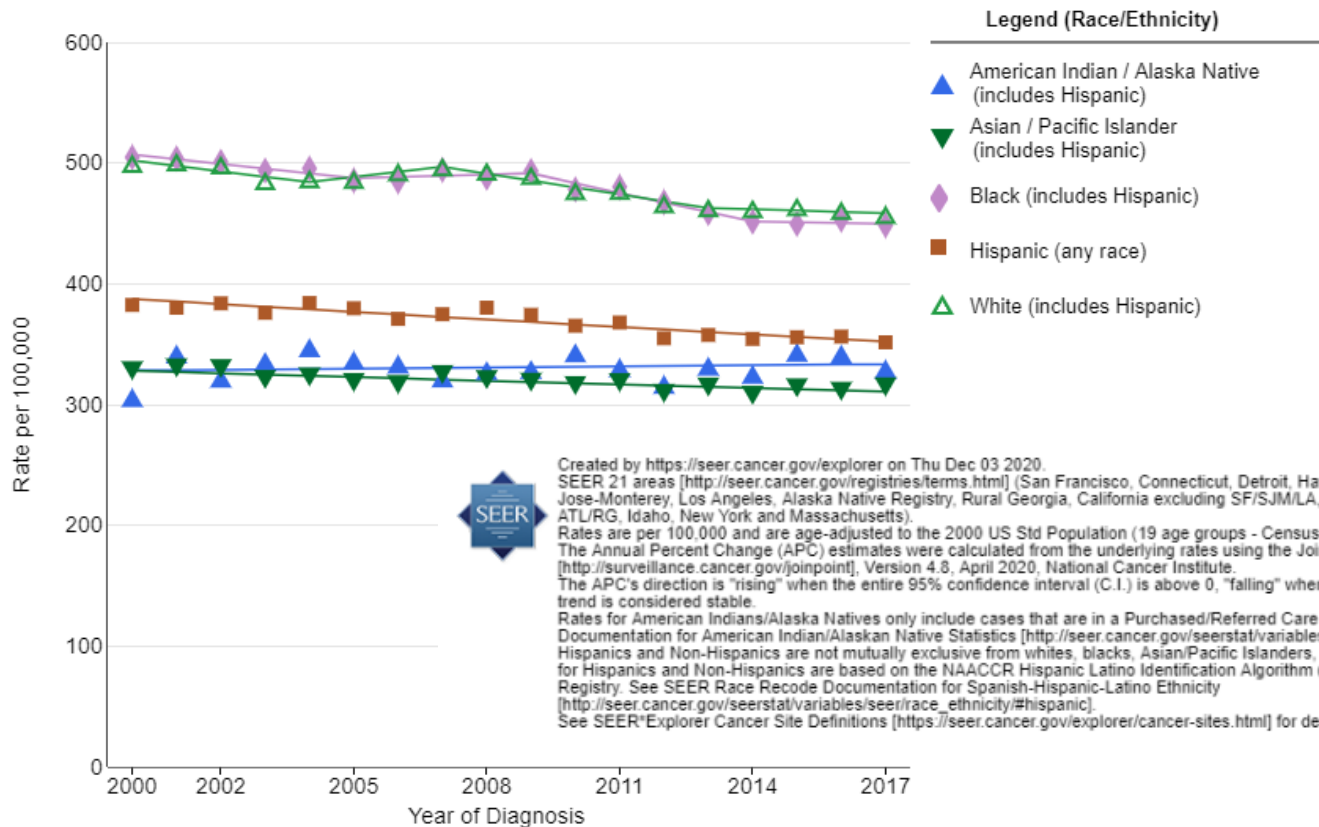
Georgia	7.5
Connecticut	7.3
Washington	6.6
Alabama	6
West Virginia	5.7
Oklahoma	5
Arizona	4.6
Colorado	4.3
Florida	4.1
Hawaii	2.3
Delaware	0.7
New Mexico	0.3
Kentucky	-1.8
New York	-5.8
Alaska	-13.7
Massachusetts	-15.8
Rhode Island	-24.4



# All Cancer Sites Combined

## Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2017

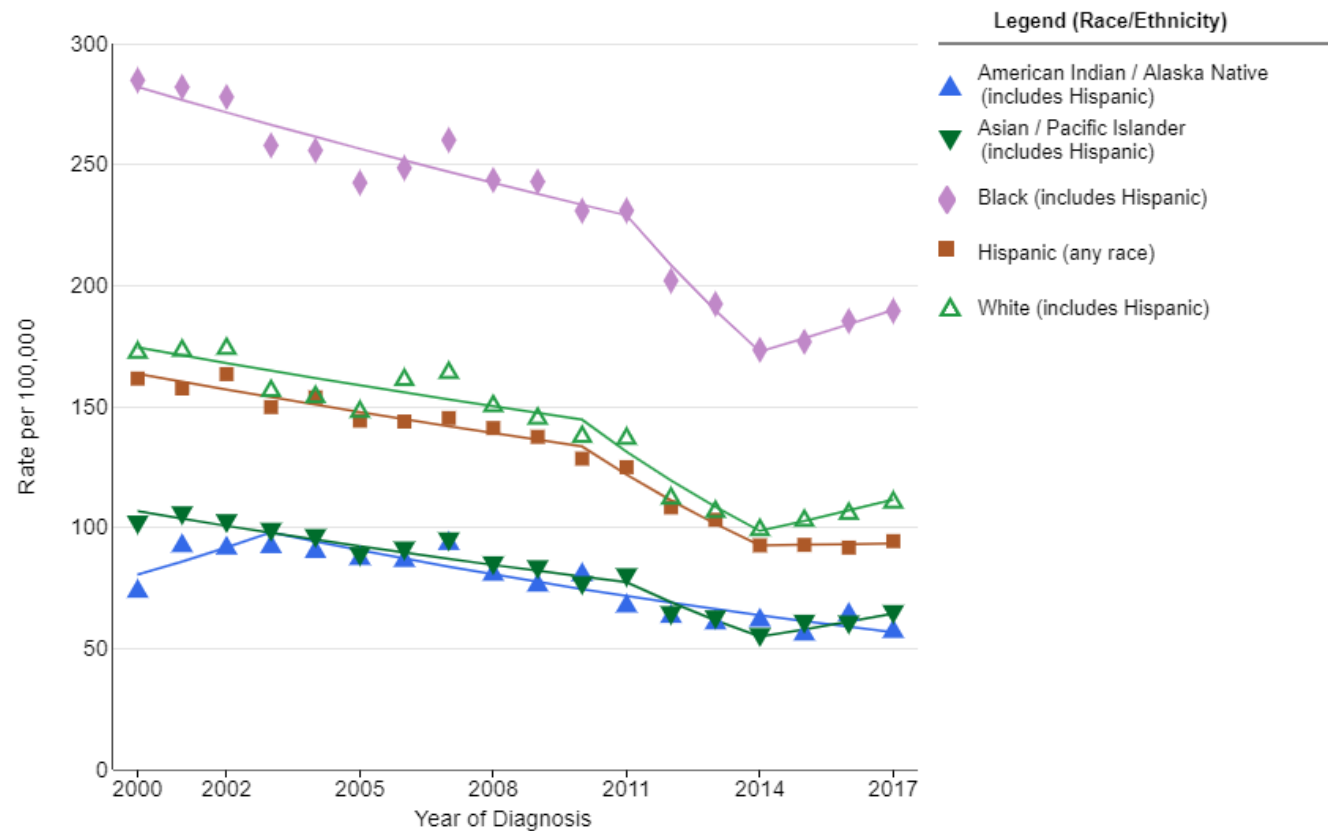
### By Race/Ethnicity, Both Sexes, All Ages, Delay-adjusted Rates



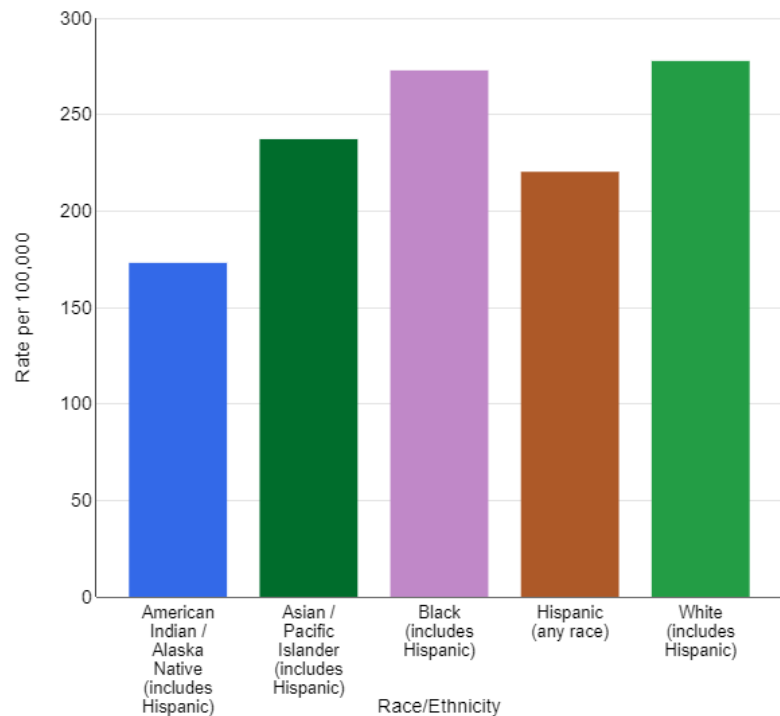
# Prostate Cancer

## Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2017

### Male By Race/Ethnicity, All Ages, All Stages, Delay-adjusted Rates



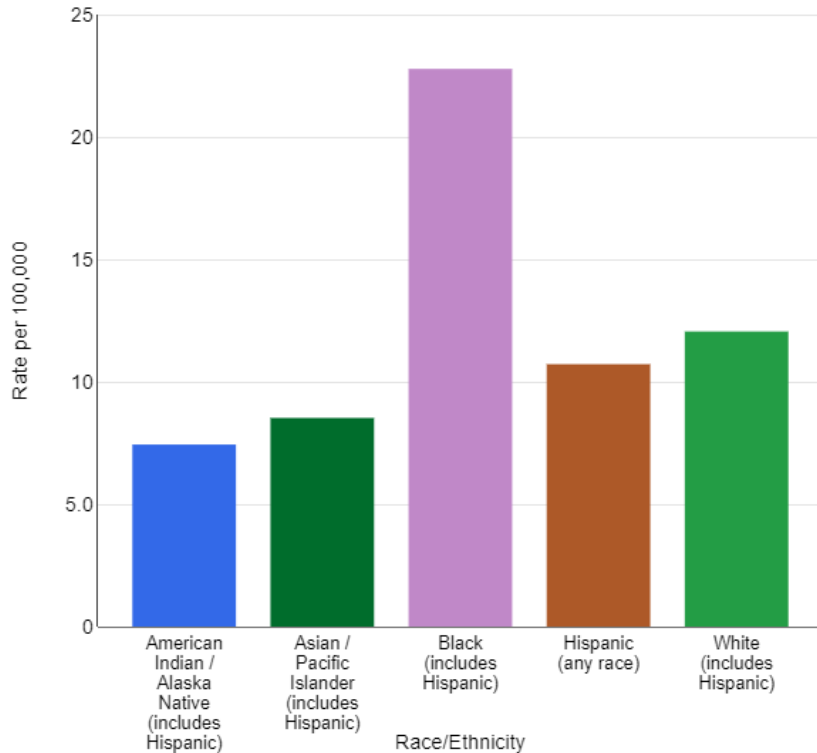
## Breast Cancer SEER 5-Year Age-Adjusted Incidence Rates, 2013-2017 By Race/Ethnicity, Female, Ages 50-64, All Stages



Created by <https://seer.cancer.gov/explorer> on Thu Dec 03 2020.



# HR-/HER2- (Triple Negative) Breast Cancer (Female only) SEER 5-Year Age-Adjusted Incidence Rates, 2013-2017 Female By Race/Ethnicity, All Ages, All Stages



Created by <https://seer.cancer.gov/explorer> on Thu Dec 03 2020.

[Cancers \(Basel\)](#). 2018 Dec; 10(12): 514.

PMCID: PMC6316530

Published online 2018 Dec 14. doi: [10.3390/cancers10120514](https://doi.org/10.3390/cancers10120514)

PMID: [30558195](https://pubmed.ncbi.nlm.nih.gov/30558195/)

## Racial Disparity and Triple-Negative Breast Cancer in African-American Women: A Multifaceted Affair between Obesity, Biology, and Socioeconomic Determinants

Sumit Siddharth\* and Dipali Sharma\*

### Research Agenda 1:

Examine where trend disparities exist,  
Relate to advances in medical treatments  
Examine which populations appear to have missed out on progress for non-genetic reasons.



## Trends and Patterns of Disparities in Burden of Lung Cancer in the United States, 1974-2015

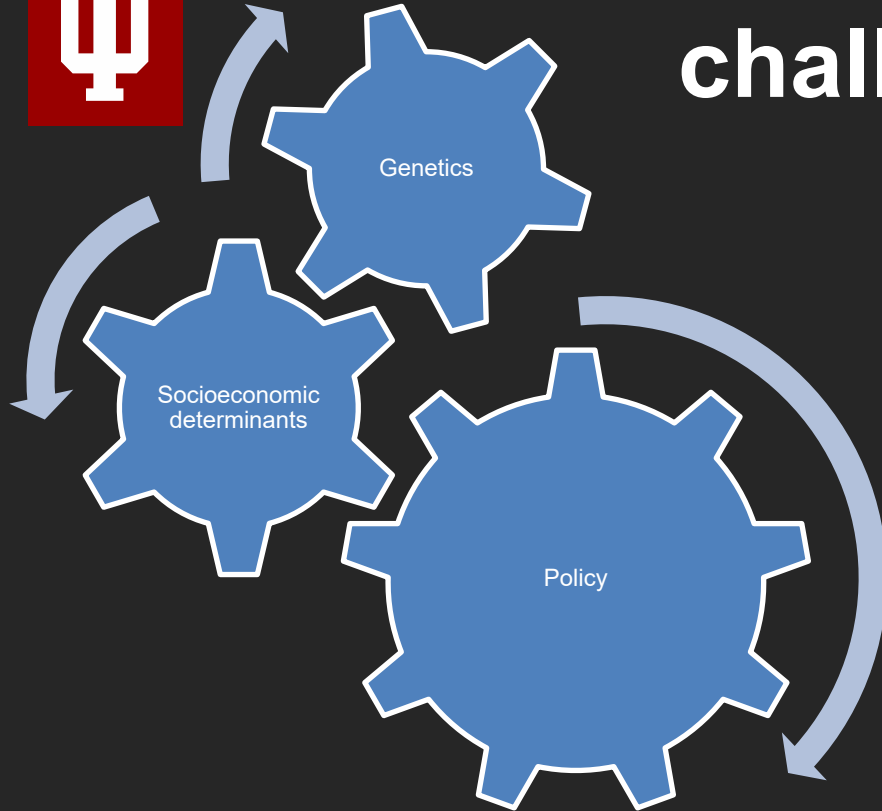
ORIGINAL RESEARCH  
published: 31 May 2019  
doi: [10.3389/fonc.2019.00404](https://doi.org/10.3389/fonc.2019.00404)

Yu Jie Zhong<sup>1†</sup>, Yi Feng Wen<sup>2†</sup>, Hai Ming Wong<sup>3</sup>, Guosheng Yin<sup>4</sup>, Ruitao Lin<sup>5</sup> and Shuan Ying Yang<sup>1\*</sup>





# Multi-disciplinary challenge



The screenshot shows the AJPH website interface. At the top is the AJPH logo, a publication of the American Public Health Association. Below the logo is a navigation bar with links for Home, Articles, Authors, and Subscriptions. The main content area displays the following information:

Home » American Journal of Public Health (AJPH) » February 2018

**Effect of Medicaid Expansions of 2014 on Overall and Early-Stage Cancer Diagnoses**

Aparna Soni MA, Kosali Simon PhD, John Cawley PhD, and Lindsay Sabik PhD

[+] Author affiliations, information, and correspondence details

Accepted: September 28, 2017    Published Online: January 10, 2018

**Research Agenda 2:**  
How policy has affected disparities



# Research Agenda 3 : COVID-19, Cancer and Disparities

The screenshot shows the American Cancer Society website with a navigation menu and three featured articles. The navigation menu includes: CANCER A-Z, STAY HEALTHY, TREATMENT & SUPPORT, NEWS, OUR RESEARCH, GET INVOLVED, OUR PARTNERS, and ABOUT US. The featured articles are:

- Routine medical care during the COVID-19 pandemic**: Learn steps you can take to help your family plan a safe return to routine screenings and vaccinations.
- Common questions about coronavirus and cancer**: How cancer patients, care, and treatment might be affected.
- Infections in people with cancer**: Why people with cancer can be more at risk and what to watch for.

**Viewpoint**  
August 13, 2020

## Disparities in Cancer Outcomes Due to COVID-19—A Tale of 2 Cities

Onyinye D. Balogun, MD<sup>1,2</sup>; Vivian J. Bea, MD, MBS<sup>2,3</sup>; Erica Phillips, MD, MS<sup>4</sup>

[Author Affiliations](#) | [Article Information](#)

*JAMA Oncol.* 2020;6(10):1531-1532. doi:10.1001/jamaoncol.2020.3327

**THE LANCET Oncology**  
Volume 21, Issue 8, August 2020, Pages 1023-1034

Articles

### 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 PhD<sup>a</sup>, Prof James Spicer PhD<sup>c,\*</sup>, Melanie Morris PhD<sup>b</sup>, Prof Arnie Purushotham MD<sup>c,\*</sup>, Prof Ellen Nolte PhD<sup>b</sup>, Prof Richard Sullivan PhD<sup>c,\*</sup>, Prof Bernard Rachet PhD<sup>b,†</sup>, Ajay Aggarwal PhD<sup>b,‡</sup>

## Did Progress Stall?

[Ann Surg.](#) 2020 Jun 2 : 10.1097/SLA.0000000000003967.  
Published online 2020 Jun 2. doi: [10.1097/SLA.0000000000003967](https://doi.org/10.1097/SLA.0000000000003967)

PMCID: PMC7299109

PMID: [32487802](https://pubmed.ncbi.nlm.nih.gov/32487802/)

### Are We Harming Cancer Patients by Delaying Their Cancer Surgery During the COVID-19 Pandemic?

[Kiran K. Turaga, MD, MPH\\*](#) and [Saket Girotra, MD, MPH†](#)



# Methods and Data: **Challenges and Opportunities**

## Challenges

- “close to experimental” design hard to achieve (Medicaid expansion, other policies that matter)
- Especially when medical-SES linked datasets few, small samples for disparities (eg Medical Expenditure Panel Survey) or race/ethnicity not well recorded

## Opportunities

- New data sources (electronic health records) improving in data quality & accessibility

