Breast Cancer Trends and Outcomes Among Young Hispanic and Asian/Pacific Islander Women Age < 40 in the National Cancer Database (NCDB) adjusted for U.S. population data

Poornima Saha, MD, Kristine Kuchta, MS, Danielle Thompson, MD, Katharine A. Yao, MD, MS

PS4-11-21

Background / Methods

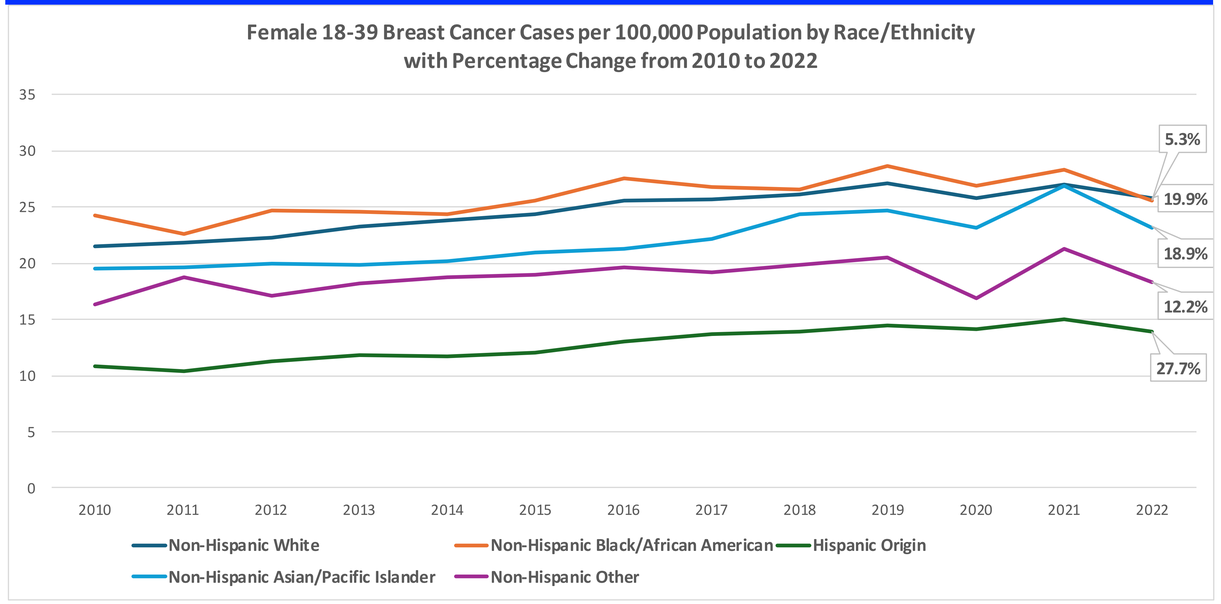
- **Breast cancer incidence is rising nationally, particularly among young women.**
- **While many studies have documented the rising incidence in Black women, few studies have investigated these trends in Hispanic and Asian/Pacific Islander (API) women.**
- **The primary objective of this study was to analyze trends in the incidence of breast cancer in Hispanic and API women under forty years old using data from the National Cancer Database (NCDB) from 2010 to 2022.**
- **Breast cancer incidence data from the NCDB were standardized using population data from the United States census.**

Results

Tumor Characteristics by Age and Race

Tumor Characteristics	Non-Hispanic White Women < 40	Black/African American Women < 40	Hispanic Women < 40	Asian/Pacific Islander Women < 40
Total Patients [N]	119,532	30,808	21,162	11,880
Hormone Receptor Positive (ER+/PR+) [%]	69.1	63.6	65.4	73.5
HER2+ [%]	16.3	15.1	16.4	17.4
Triple Negative [%]	11.7	16.3	15.4	9.8
Tumor Grade [%]				
Well-differentiated	32.3	25.6	27.7	31.8
Moderately differentiated	10.6	10.0	11.8	13.8
Poorly differentiated	49.6	56.3	52.5	46.4
Unknown	7.5	8.0	8.0	8.1
Tumor Size [%]				
≤ 2cm	37.9	29.9	28.9	34.8
2-5cm	40.4	42.4	44.0	41.5
>5cm	13.6	18.8	18.5	15.4
Unknown	8.1	8.9	8.6	8.4
Lymph Node Status [%]				
Positive	53.3	47.7	48.2	54.7
Negative	36.9	39.5	39.8	33.8
Unknown	9.8	12.8	12.0	11.5
Stage at Diagnosis [%]				
Early stage (I/II)	77.9	70.9	71.5	78.8
Late stage (III/IV)	18.4	25.2	23.7	17.1
Unknown	3.7	3.9	4.8	4.2

Results



Female 18-39 Breast Cancer Cases per 100,000 Population														Change	% Change
Race	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2010-2022	2010-2022
Non-Hispanic White	21	22	22	23	24	24	26	26	26	27	26	27	26	4	19.92%
Non-Hispanic Black or African American	24	23	25	25	24	26	28	27	27	29	27	28	26	1	5.3%
Hispanic Origin	11	10	11	12	12	12	13	14	14	15	14	15	14	3	27.7%
Non-Hispanic Asian/Pacific Islander	20	20	20	20	20	21	21	22	24	25	23	27	23	4	18.90%
Non-Hispanic Other	16	19	17	18	19	19	20	19	20	21	17	21	18	2	12.2%
Total	92	93	95	98	99	102	107	108	111	116	107	118	107	14	15.4%

Key Take Away:
From 2010 to 2022, Hispanic women age < 40 experienced the highest rise in breast cancer incidence at 27.7% followed by API women age < 40 with 18.9% rate of incidence adjusted for US census data.

Results

Survival by Age and Race

	Women < 40		Women > 40	
	5-year Survival	10-year Survival	5-year Survival	10-year Survival
All patients	88.4%	81.1%	85.9%	73.2%
Non-Hispanic White	89.7%	82.6%	86.0%	73.0%
Non-Hispanic Black or African American	81.5%	73.0%	80.7%	67.8%
Hispanic Origin	88.0%	80.7%	89.0%	79.4%
Non-Hispanic Asian/Pacific Islander	92.9%	87.7%	92.1%	84.5%
Non-Hispanic Other	89.7%	83.2%	88.0%	92.5%

Conclusions

- **These findings confirm an increase in incidence rates among young women across all racial and ethnic groups.**
- **The greatest relative increase in breast cancer rates occurred in young Hispanic and API women. Black women experienced the lowest relative increase.**
- **The rise in incidence in young Hispanic and API women does not appear to be paralleled by a rise in mortality in these groups.**
- **The dramatic increase in breast cancer incidence among young women of color, particularly Hispanic and API women, is notable and warrants further research into factors contributing to these disparities.**