Time to Diagnosis and First Treatment of Breast Cancer at NAPBC Sites and US Neighborhood Disadvantage

Danielle Thompson, MD, Marie Fefferman, MD, Kristine Kuchta, MS, Sandra Simovic, Katharine Yao, MD

Background

- Time to diagnosis and first treatment of breast cancer has increased over the years and has been associated with worse clinical outcomes and higher patient dissatisfaction.

- Breast cancer screening, diagnosis and treatment show significant socioeconomic disparities.

- The Area Deprivation Index (ADI) is a validated measure of socioeconomic disadvantage used to assign US neighborhoods rankings based on factors such as housing quality, education, income and employment.

Objective

- To examine the association between the ADI and timeliness metrics from screening mammogram (MGM) to treatment collected under the NAPBC Prompt Quality Collaborative.

Methods

- NAPBC centers completed a RedCap survey about facility demographics, staffing, and timeliness metrics from 2019-2021 as apart of the Prompt Quality Collaborative.
- Timeliness metrics included time in calendar days from screening MGM to diagnostic MGM, diagnostic MGM to biopsy, biopsy to first surgery and biopsy to neoadjuvant therapy.
- Analyzed timeliness metrics stratified by ADI state decile and national percentile.

Timeliness Metrics Stratified by Area Deprivation Index Scores

	Number of Sites	Screening MGM to Diagnostic MGM		Diagnostic MGM to Biopsy		Biopsy to Neoadjuvant Chemo		Biopsy to First Surgery	
	N (%)	Median (Q1-Q3)	p-value	Median (Q1-Q3)	p-value	Median (Q1-Q3)	p-value	Median (Q1-Q3)	p-value
State Decile			0.4883		0.0760		0.1930		0.7066
1-3	109 (37.3)	11 (8-18)		9 (7-12)		31 (26-38)		43 (35-52)	
4-7	110 (37.7)	11 (8-16)		8 (6-11)		32 (25-42)		42 (33-52)	
8-10	73 (25.0)	13 (8-20)		9 (7-14)		36 (28-40)		41 (35-50)	
National Percentile			0.4391		0.1504		0.6414		0.2938
1-33	108 (37.0)	11 (8-16)		9 (7-13)		34 (27-43)		43 (36-52)	
34-67	123 (42.1)	13 (8-18)		9 (6-12)		32 (26-41)		42 (33-52)	
68-100	61 (20.9)	10 (7-18)		6 (9-5)		35 (25-38)		39 (34-48)	

Results

- ADI data was available at the state and national level for 292 (91.1%) centers.

- 73 (25%) of centers were in the highest deciles for state data and 61 (20.9%) for national data.

- When the lowest state and nationwide quartiles were compared to the highest quartiles across all four timeliness metrics, there was no significant difference in the number of days except for time from diagnostic MGM to biopsy.

Conclusions

- ADI scores were not closely associated with time to diagnosis and first treatment at NAPBC sites participating in Prompt.

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