

Impact of High Neighborhood Socioeconomic Deprivation on Access to Accredited Breast Imaging Screening and Diagnostic Facilities

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Purpose

To evaluate the impact of high neighborhood socioeconomic deprivation on access to accredited breast imaging facilities.

Methods

- Neighborhood socioeconomic disadvantage rankings at the zip code level were defined by the University of Wisconsin Neighborhood Atlas® Area Deprivation Index.
- Outcomes: presence or absence of FDA or ACR accredited mammography facilities, accredited stereotactic biopsy or breast ultrasound facilities, and ACR breast imaging centers of excellence.
- Access to breast imaging facilities in high-disadvantage (≥ 97 th percentile) and low-disadvantage (≤ 3 rd percentile) zip codes was compared using chi-square tests, stratified by urban/rural status (defined by USDA Rural-Urban Commuting Area Codes).
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Results

Table 1. A comparison of high disadvantage and low disadvantage United States zip codes containing FDA certified or ACR accredited breast imaging facilities.

	High disadvantage zip codes (n=2796)	Low disadvantage zip codes (n=1028)	P-value
FDA certified mammography facilities	28%	35%	<0.001
ACR accredited stereotactic biopsy	7%	15%	<0.001
ACR accredited screening mammography	28%	35%	<0.001
ACR accredited breast ultrasound	9%	23%	<0.001
ACR Breast Imaging Centers of Excellence	7%	16%	<0.001

Table 2. Urban high disadvantage and low disadvantage United States zip codes containing FDA certified or ACR accredited breast imaging facilities.

	Urban High disadvantage zip codes (n=1636)	Urban Low disadvantage zip codes (n=989)	P-value
FDA certified mammography facilities	30%	36%	0.003
ACR accredited stereotactic biopsy	10%	16%	< 0.001
ACR accredited screening mammography	30%	36%	0.002
ACR accredited breast ultrasound	13%	23%	< 0.001
ACR Breast Imaging Centers of Excellence	10%	16%	< 0.001

Conclusions

Access to an ACR Breast Imaging Center of Excellence is an indicator of quality comprehensive multi-modality breast imaging services available at one location.

Zip codes with high levels of socioeconomic disadvantage were less likely to have accredited breast imaging facilities and breast imaging centers of excellence along all steps of the screening and diagnostic breast imaging care continuum.

Reducing breast cancer disparities will require breast imaging practice leaders to expand access to breast imaging services in areas of high socioeconomic disadvantage.

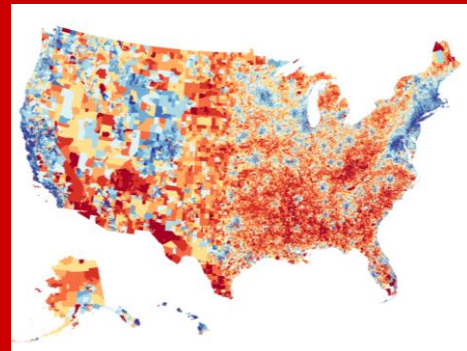


Figure: Area Deprivation Indices throughout United States, courtesy of Neighborhood Atlas®