Internet use, Access to Care, and Breast Cancer Screening Among Publicly Insured Women

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Introduction

Biennial screening of breast cancer is crucial for early cancer detection. Although both Medicare and Medicaid provide coverage for breast cancer screening, screening rates among Medicaid recipients have been consistently lower. Internet use to seek out health information has been linked to increased health literacy and preventive care but findings are inconsistent. Internet use may represent a pathway to improve breast cancer screening rates, although little is known about its role among publicly insured women.

Objective

To examine whether internet use to seek health information is associated with being up-to-date on breast cancer screening among publicly insured women in the United States, and to assess how access to care (usual place of care and recent healthcare visits) may influence this association.

Methods

Sample: 2,867 publicly insured women aged 40-74 years within the recommended breast cancer screening age range, representing approximately 18.8 million U.S. women. Participants were covered by Medicaid, Medicare, or Medicare + Supplemental insurance and were up to date with breast cancer screening (received a mammogram or breast MRI within the past two years). Women with a prior breast cancer diagnosis or missing screening data were excluded. A subsample of 503 women with complete healthcare access data, approximately 3.1 million U.S Women, was used in an expanded model.

Data: 2023 National Health Interview Survey (NHIS), a nationally representative household survey of the non-institutionalized U.S. population.

Study Population Characteristics

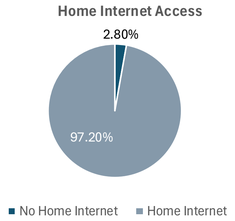


Figure 1. Proportion of Sample with Home Internet Access.

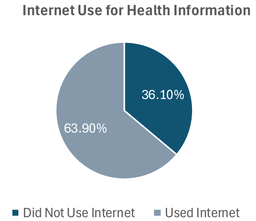


Figure 2. Proportion of Sample that Used Internet to Seek Health Information.

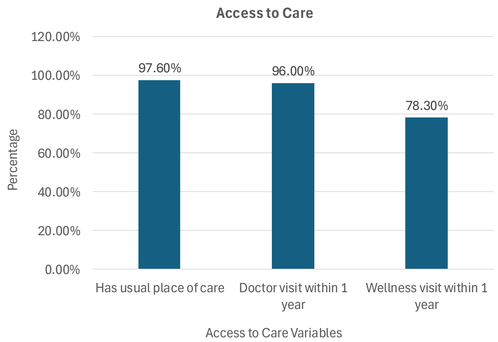
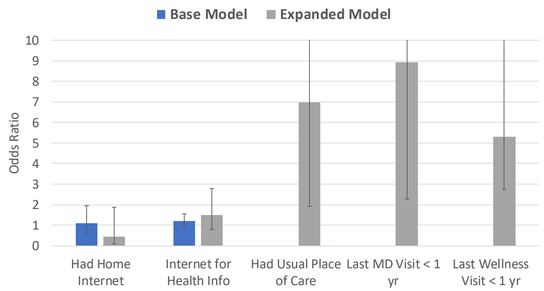


Figure 3. Proportion of Sample with each Access to Care Measure

Results



- Internet use was not significantly associated with breast cancer screening in the base or expanded models.
- In the expanded model, all 3 access to care measures were significantly associated with breast cancer screening.

Base model

Predictor	Odds Ratio (OR)	95% CI
Home internet	1.09	0.61-1.95
Used Internet for Health Information	1.21	0.94-1.56
Insurance Type (ref = Medicare)		
Medicare + Supplemental	1.04	0.75-1.45
Medicaid	**0.61**	**0.43-0.86**
Age	0.99	0.97-1.01
Education (ref = <HS)		
HS/GED	1.40	0.94-2.08
Some college/Associate	1.17	0.80-1.69
Bachelor+	**1.71**	**1.11-2.63**
Income (ref = Low)		
Middle (200-399% FPL)	1.17	0.85-1.62
High (≥400% FPL)	1.24	0.87-1.77

Expanded Model

Predictor	Odds Ratio (OR)	95% CI
Home internet	0.44	0.10-1.87
Used Internet for Health Information	1.48	0.79-2.77
Insurance Type (ref = Medicare)		
Medicare + Supplemental	0.93	0.44-1.97
Medicaid	0.75	0.33-1.67
Age	1.00	0.96-1.04
Education (ref = <HS)		
HS/GED	1.88	0.70-5.05
Some college/Associate	0.95	0.43-2.11
Bachelor+	1.03	0.36-2.91
Income (ref = Low)		
Middle (200-399% FPL)	1.95	0.86-4.42
High (≥400% FPL)	2.17	0.87-5.37
Usual place of care	**6.97**	**1.92-25.35**
Last doctor visit within 1 year	**8.93**	**2.26-35.27**
Wellness visit within 1 year	**5.30**	**2.73-10.27**

- Medicaid was associated with lower odds of up-to-date screening.
- Higher education (Bachelor+) was associated with higher odds of screening.

Discussion

Our findings show that internet use, whether having home internet or using the internet to seek health information, was not associated with being up-to-date on breast cancer screening among publicly insured women. Instead, access to care emerged as the significant predictor of screening. Having a usual place of care, a recent doctor visit, or a recent wellness visit greatly increased the likelihood of screening. This suggests that disparities in screening are driven less by digital access and more by structural barriers to routine care. Efforts to improve breast cancer screening among publicly insured women may work best by making it easier for patients to stay connected to a regular provider and receive routine annual visits.

Conclusion

Among publicly insured women, internet use was not a significant predictor of being up-to-date on breast cancer screening once usual place of care and recent healthcare visits were considered. Improving continuity of care and strengthening access to routine visits may have the greatest impact on increasing screening rates.

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