

Financial hardship is associated with lower uptake of colorectal, breast, and cervical cancer screenings

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BACKGROUND

- Rising healthcare costs and financial hardship are considerable barriers to cancer screening.
- This study examined associations between financial hardship and cancer screening in Indiana, a state with the 10th highest cancer mortality rate in the U.S.

METHODS

- Surveys were mailed to a stratified random sample of 7,979 people ages 18-75
- Inclusion criteria:
 - Seen at least once in the statewide health system during the previous year
 - Lived in Indiana counties with higher than average cancer mortality
- Participants reported whether they had needed to see a doctor in the past year, but could not due to cost.
- This was compared to uptake of:
 - Mammogram
 - Colonoscopy/sigmoidoscopy
 - Pap testing
- Analysis:
 - Logistic regression analysis controlling for age, race/ethnicity, and marital status among participants who were eligible for these screening tests based on USPSTF guidelines.

CONTACT AND FUNDING

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RESULTS

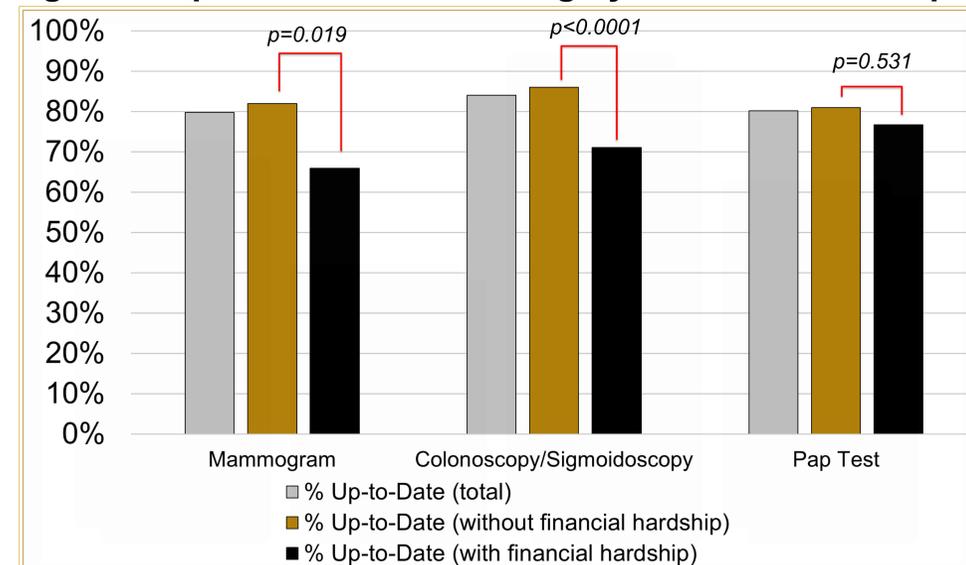
Table 1. Sample description and bivariate associations (N=970)

Variable	Total n(%)	Wanted to see doctor and couldn't due to cost [n(%)]		p-value
		No	Yes	
		798 (84.9)	142 (15.1)	
Demographics				
Age				<0.0001
18-34	105 (10.8)	77 (9.6)	25 (17.6)	
35-49	130 (13.4)	101 (12.7)	26 (18.3)	
50-64	380 (39.2)	309 (38.7)	63 (44.4)	
65+	355 (36.6)	311 (39.0)	28 (19.7)	
Sex				0.842
Male	439 (46.7)	371 (46.6)	67 (47.5)	
Female	501 (51.6)	425 (53.4)	74 (52.5)	
Race/ethnicity				0.001
Non-Hispanic White	709 (75.3)	616 (77.7)	89 (62.7)	
Non-Hispanic Black	179 (19.0)	134 (16.9)	42 (29.6)	
Non-Hispanic Other	35 (3.7)	27 (3.4)	8 (5.6)	
Hispanic	19 (2.0)	16 (2.0)	3 (2.1)	
SES				
Education				0.029
Less than GED	71 (7.8)	57 (7.4)	14 (10.2)	
HS grad or GED	260 (28.4)	213 (27.5)	46 (33.6)	
Some college	253 (27.6)	213 (27.5)	38 (27.7)	
College graduate	192 (21.0)	162 (20.9)	30 (21.9)	
Postgraduate	140 (15.3)	130 (16.8)	9 (6.6)	
Income				<0.0001
\$0-19,999	177 (20.5)	130 (17.9)	46 (34.3)	
\$20,000-34,999	141 (16.3)	110 (15.2)	30 (22.4)	
\$35,000-49,999	127 (14.7)	102 (14.0)	23 (17.2)	
\$50,000-74,999	170 (19.7)	146 (20.1)	23 (17.2)	
\$75,000-99,999	107 (12.4)	100 (13.8)	7 (5.2)	
\$100,000+	143 (16.5)	138 (19.0)	5 (3.7)	
Financial Hardship				
Feelings about income				<0.0001
Living comfortably	345 (37.7)	333 (43.3)	10 (7.1)	
Getting by	329 (35.9)	275 (35.8)	50 (35.5)	
Finding it difficult	161 (17.6)	113 (14.7)	48 (34.0)	
Finding it very difficult	81 (8.8)	48 (6.2)	33 (23.4)	

BEST FIT MODEL

- **Mammogram:**
 - Not foregoing medical care due to cost remained in the model, but was not statistically significant (aOR=2.43; 95%CI=0.94-6.24).
- **Colonoscopy/sigmoidoscopy:**
 - Those who reported they did not have to forego medical care due to cost had higher odds of screening compared to those who did (aOR=2.21; 95%CI= 1.19-4.10). The only other variables significant in the model were higher income (aOR=16.19; 95%CI=3.46-75.71), and occupational status (aOR=2.12; 95%CI=1.14-4.19).
- **Pap testing:**
 - Financial hardship was not significantly associated, but not having health insurance was (aOR=0.15; 95%CI=0.04-0.53).

Figure 1. Up-to-Date on Screening by Financial Hardship



CONCLUSIONS

- The associations between financial hardship associated with medical costs and cancer screening were observed among individuals who had at least one medical encounter in the past year, suggesting the need to reduce barriers to cancer screening even among patients who already have some access to healthcare.
- Future research should explore barriers related to healthcare (e.g., co-pays), personal costs (e.g., time off work), and ways to increase the survey response rate.