

Cancer-Related Distress and Cost of Care Concerns Among a Community-Based Sample of Individuals with Cancer

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Background

- Cancer survivors are at risk for financial burden due to substantial cost of care (CoC), which may impact quality of life

Aims

- The objective of this study was to examine the relationship between patients' cost of care experiences and psychosocial distress

Methods

- 3,318 individuals diagnosed with cancer enrolled in Cancer Support Community's Cancer Experience Registry®, provided demographic, clinical, and cost of care information, and completed CancerSupportSource®, a 25-item distress screening tool that includes 2-item depression risk and 2-item anxiety risk subscales
- We used logistic regression to examine the role of cost of care in predicting odds of anxiety and depression risk, controlling for demographic and clinical variables significant in bivariate analyses

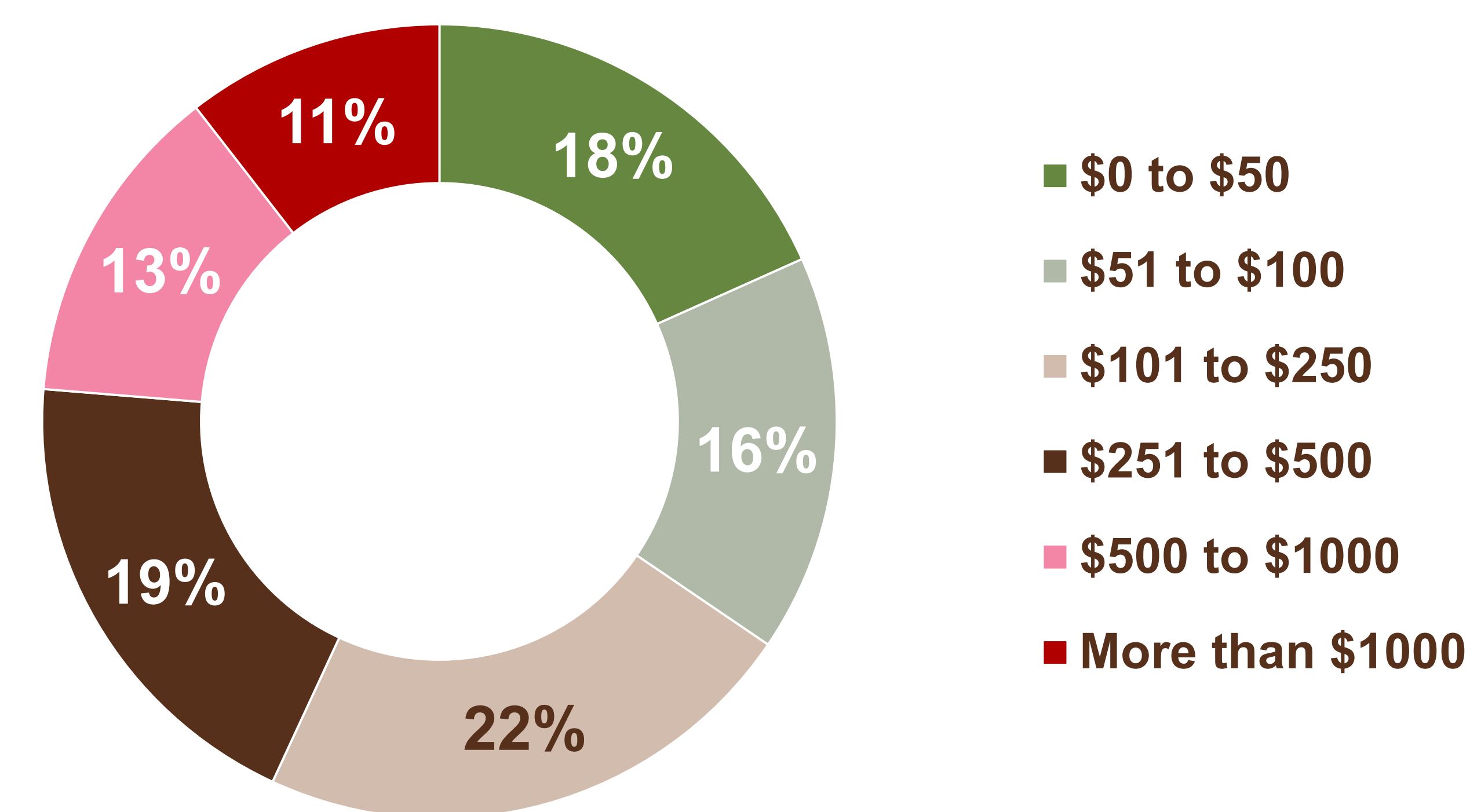
Participants

	M/n	SD/%
Age (years)	58	12
		Range: 18 – 83
18-44 years old	391	13%
45-64 years old	1,765	57%
≥65 years old	919	30%
Employed full-time	1,051	33%
Employed full-time ages 18-64 years (N=2,144)	909	43%
Female	2,480	75%
Non-Hispanic White	2,748	85%
Currently receiving treatment	1,828	61%
Ever experienced recurrence	782	29%
Currently in remission	1,084	49%
Time since diagnosis ≤5 years	2,043	69%
Ever diagnosed with metastatic cancer	583	26%
Cancer type		
Breast Cancer	1386	42%
Chronic Myeloid Leukemia	314	10%
Multiple Myeloma	313	9%
Prostate Cancer	180	5%
Lung Cancer	154	5%
Chronic Lymphocytic Leukemia	122	4%
Colorectal Cancer	103	3%
Ovarian Cancer	90	3%

* Additional cancer diagnoses include Non-Hodgkin's Lymphoma (2%), Head and Neck Cancer (2%), Melanoma (2%), and Endometrial Cancer (1%), among others

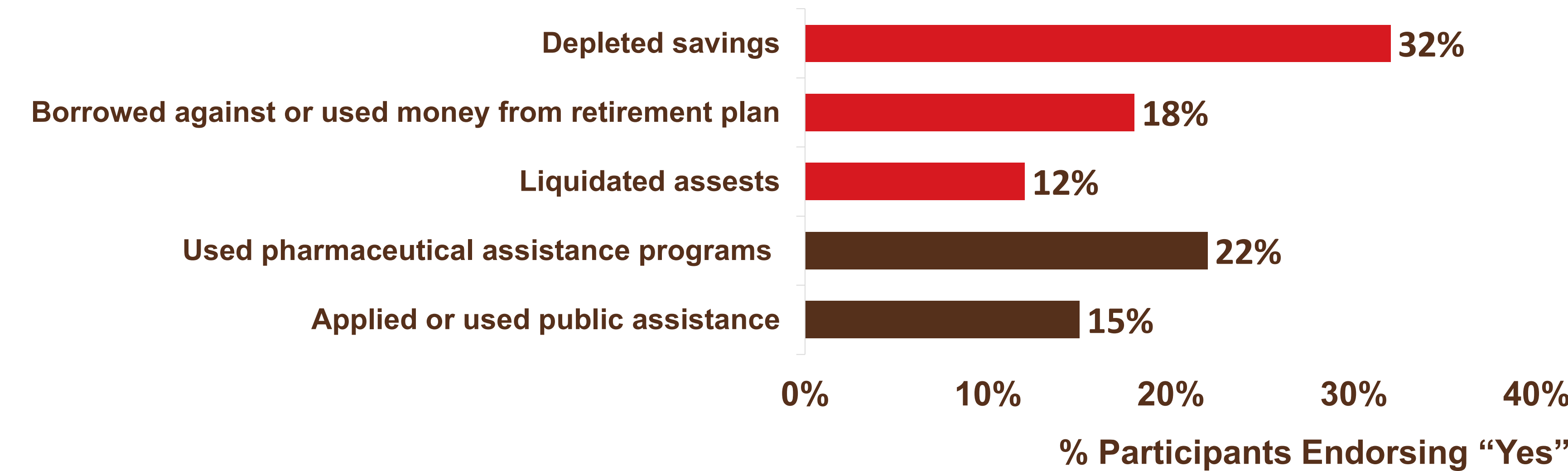
Results

Average Monthly Out-of-Pocket Costs



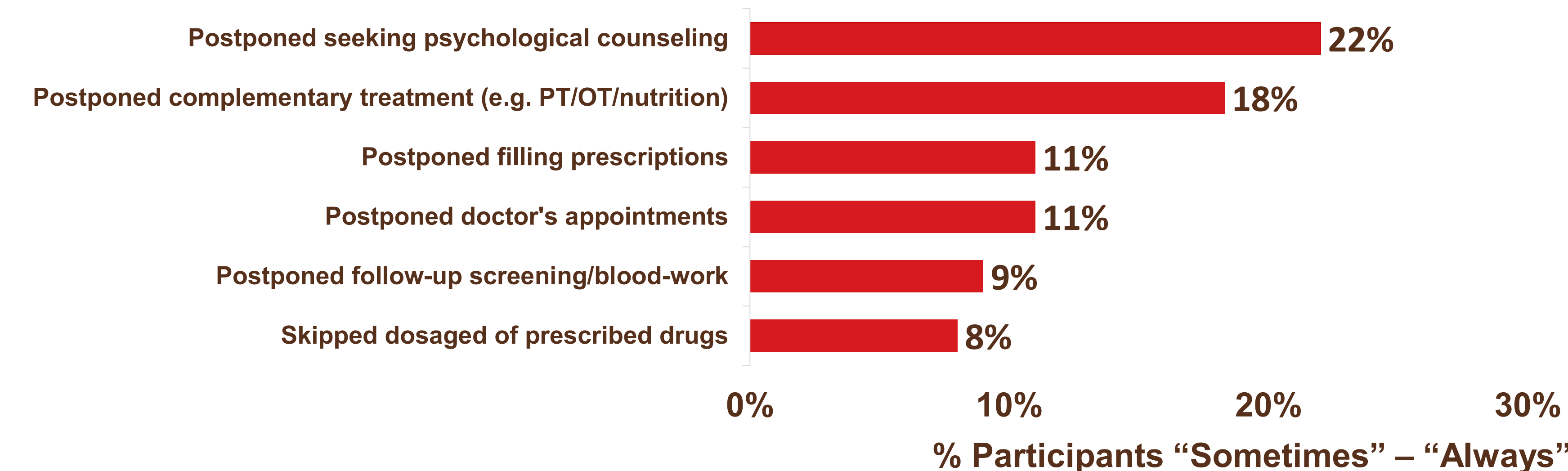
- Nearly one-fourth (24%) of respondents spent more than \$500 per month out-of-pocket for costs such as prescriptions, insurance co-pays, transportation and parking, meals while at the hospital, etc.

Financial Efforts to Offset Cost



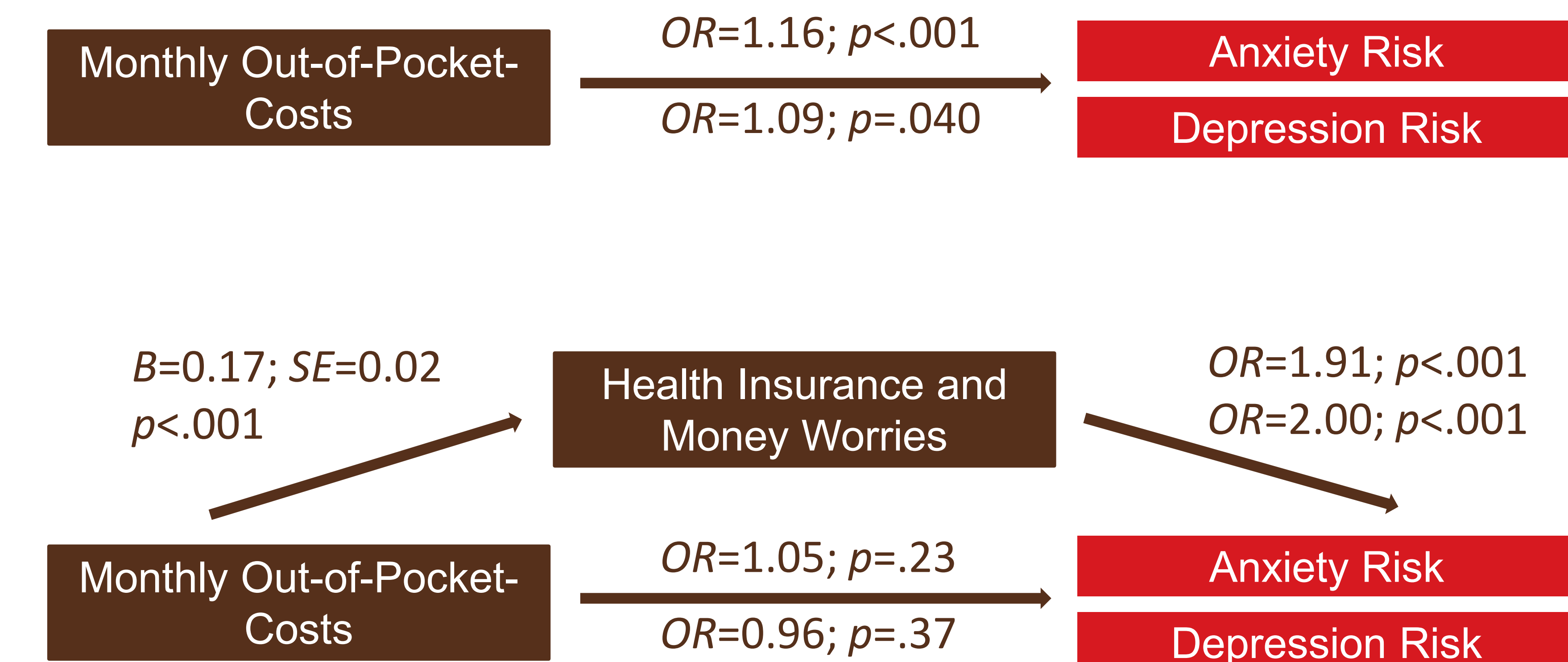
- Due to the cost of cancer, 32% of respondents depleted their savings, 18% borrowed against or used retirement savings, and 12% liquidated assets

Delays in Care to Reduce Cancer Costs



- About 1 in 5 *sometimes to always* postponed psychological counseling (22%) or complementary therapy (18%) to reduce cost of care
- About 1 in 10 postponed filling prescriptions (11%) or skipped doses (8%)

Financial Worries Mediate Associations Between Out-of-Pocket Costs and Anxiety and Depression Risk



* Controlling for demographic, clinical, and financial variables significant in bivariate analysis

- In multivariate logistic regression, the associations between higher out-of-pocket costs and greater odds of anxiety risk and odds of depression risk were significantly mediated by financial worries ($ps < .001$)
- Health insurance and money worries was associated with greater odds of anxiety risk ($OR = 1.91, p < .001$) and depression risk ($OR = 2.00, p < .001$)
- Postponing psychological counseling was associated with greater odds of anxiety risk ($OR = 1.31, p < .001$) and depression risk ($OR = 1.39, p < .001$)
- Having a member of the HCT discuss cost of care was associated with lower odds of depression risk ($OR = 0.71, p < .05$)

Implications and Conclusions

- Higher out-of-pocket costs predict increased concern about health insurance and money worries, which in turn predicts odds of anxiety risk and depression risk
- Additionally, postponing psychological counseling to reduce cost of care predicts anxiety and depression risk odds
- These findings demonstrate the need for doctor-patient cost of care communication and financial counseling to mitigate the impact of financial burden on quality-of-life, treatment, and health outcomes

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References

- Allite, C. K., Banegas, M. P., Tucker-Seeley, R. D., & Yabroff, K. R. (2017). Financial hardships experienced by cancer survivors: a systematic review. *JNCI: Journal of the National Cancer Institute*, 109(2).
- Yousuf, S., Zafar, (2016). Financial Toxicity of Cancer Care: It's Time to Intervene. *JNCI: Journal of the National Cancer Institute*, 108(5), djv370.
- Zafar, S. Y., Peppercorn, J. M., Schrag, D., Taylor, D. H., Goetzinger, A. M., Zhong, X., & Abernethy, A. P. (2013). The financial toxicity of cancer treatment: a pilot study assessing out-of-pocket expenses and the insured cancer patient's experience. *The oncologist*, 18(4), 381-390.
- Zheng, Z., Han, X., Guy, G. P., Davidoff, A. J., Li, C., Banegas, M. P., Ekwueme, D. U., Yabroff, K. R. and Jemal, A. (2017). Do cancer survivors change their prescription drug use for financial reasons? Findings from a nationally representative sample in the United States. *Cancer*, 123: 1453-1463.