original contributions

Financial Toxicity of Cancer Care: An Analysis of Financial Burden in Three Distinct Health Care Systems

Divya A. Parikh, MD[1,2]; Meera Ragavan, MD[1]; Ritika Dutta, BS[1]; Jeffrey Garnet Edwards, BA[1]; James Dickerson, MD[1]; Debeshi Maitra, MHA[3]; Sangeeta Aggarwal, MD[3]; Fa-Chyi Lee, MD[3]; and Manali I. Patel, MD, MPH, MS[1,4,5]

QUESTION ASKED: What factors contribute to financial toxicity in disparate cancer care systems?

SUMMARY ANSWER: Low annual household income (AHI), high out-of-pocket costs, and employment changes as a result of cancer diagnosis are associated with financial toxicity with variation on the basis of site of care.

WHAT WE DID: We conducted a cross-sectional survey of patients in three care systems, Stanford Cancer Institute (SCI), VA Palo Alto Health Care System (VAPAHCS), and Santa Clara Valley Medical Center (SCVMC), from October 2017 to May 2019. We assessed demographic factors, employment status, and out-of-pocket costs (OOPCs) and administered the validated COmprehensive Score for financial Toxicity tool. We calculated descriptive statistics and conducted linear regression models to analyze factors associated with financial toxicity.

WHAT WE FOUND: Four hundred forty-four patients completed the COmprehensive Score for financial Toxicity tool across all three sites and were included in the analysis. At SCI most were White, with AHI $>$ \$50,000 in US dollars (USD) and Medicare insurance; at the VAPAHCS most were White, with AHI $\leq$ \$50,000 USD and insured by the Veterans Administration; and at SCVMC most were Asian and/or Pacific Islander, with AHI $\leq$ \$25,000 USD and Medicaid insurance. Low AHI ($P < .0001$), high OOPCs ($P = .003$), and employment changes as a result of cancer diagnosis ($P < .0001$) were associated with financial toxicity in the pooled analysis; there was variation in significant factors by site, with employment changes significant at SCI, OOPCs at SCVMC, and no significant factors at the VAPAHCS.

BIAS, CONFOUNDING FACTORS, DRAWBACKS: This study included a diverse population across three care systems, but it may not be representative of all geographic areas. Furthermore, this study used self-reported data and a convenience sampling method, which may limit reliability and introduce selection bias. Finally, the multivariable models did not include age, which prior studies have reported is associated with financial toxicity.

REAL-LIFE IMPLICATIONS: This study demonstrates that patients with low AHI, high OOPCs, and employment changes as a result of cancer diagnosis are vulnerable to financial burden with variation on the basis of site of care. Future studies should continue to evaluate these risk factors and tailor financial toxicity interventions to specific health care settings and patient populations.

CORRESPONDING AUTHOR

Divya A. Parikh, MD, 875 Blake Wilbur Drive, Stanford, CA 94305; e-mail: divyaa@stanford.edu.

ASSOCIATED CONTENT

Appendix

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CARE DELIVERY

original contributions

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Divya A. Parikh, MD[1,2]; Meera Ragavan, MD[1]; Ritika Dutta, BS[1]; Jeffrey Garnet Edwards, BA[1]; James Dickerson, MD[1]; Debeshi Maitra, MHA[3]; Sangeeta Aggarwal, MD[3]; Fa-Chyi Lee, MD[3]; and Manali I. Patel, MD, MPH, MS[1,4,5]

abstract

PURPOSE The financial toxicity of cancer care is a source of significant distress for patients with cancer. The purpose of this study is to understand factors associated with financial toxicity in three distinct care systems.

METHODS We conducted a cross-sectional survey of patients in three care systems, Stanford Cancer Institute (SCI), VA Palo Alto Health Care System (VAPAHCS), and Santa Clara Valley Medical Center (SCVMC), from October 2017 to May 2019. We assessed demographic factors, employment status, and out-of-pocket costs (OOPCs) and administered the validated COmprehensive Score for financial Toxicity tool. We calculated descriptive statistics and conducted linear regression models to analyze factors associated with financial toxicity.

RESULTS Four hundred forty-four of 578 patients (77%) completed the entire COmprehensive Score for financial Toxicity tool and were included in the analysis. Most respondents at SCI were White, with annual household income (AHI) > $50,000 USD and Medicare insurance. At the VAPAHCS, most were White, with AHI ≤ $50,000 USD and insured by the Veterans Administration. At SCVMC, most were Asian and/or Pacific Islander, with AHI ≤ $25,000 USD and Medicaid insurance. Low AHI ($P < .0001$), high OOPCs ($P = .003$), and employment changes as a result of cancer diagnosis ($P < .0001$) were associated with financial toxicity in the pooled analysis. There was variation in factors associated with financial toxicity by site, with employment changes significant at SCI, OOPCs at SCVMC, and no significant factors at the VAPAHCS.

CONCLUSION Low AHI, high OOPCs, and employment changes contribute to financial toxicity; however, there are variations based on site of care. Future studies should tailor financial toxicity interventions within care delivery systems.

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INTRODUCTION

Financial toxicity, or the hardship faced by patients because of out-of-pocket expenses, is increasingly recognized as a side effect of health care in the United States.[1,2] Cancer remains one of the most expensive health care conditions among US citizens,[3] and the percentage of cost shared by patients has significantly increased in recent years.[4,5] The impact that cost can have is profound. Several studies associate high healthcare costs with worse patient-reported outcomes,[6] poor treatment adherence,[7] bankruptcy,[8,9] and early mortality[10] among patients with cancer.

Studies evaluating patient experiences related to cost of cancer care among Medicare beneficiaries,[11] privately insured patients in academic institutions,[12,13] and cancer survivors[14] reveal younger age,[8,15] female sex,[16] low income,[17] and newly diagnosed patients[11] as risk factors related to financial toxicity. Some studies also suggest that employed patients are at greater risk of financial hardship[16]; however, others do not corroborate these findings.[18] There is marked heterogeneity in the instruments used to study financial toxicity, and the varied results in studies make comparisons between populations and sites of cancer care difficult.[19,20]

De Souza et al[21] first reported the COmprehensive Score for financial Toxicity (COST) tool, a validated survey developed on the basis of literature review, investigator experience, and patient interviews, to collect patient-reported outcomes related to financial toxicity. The 11-question survey is scored on a range of 0-44 with higher scores representing lower financial toxicity[22] and has been used in several single-institution studies.[12,22] To date, this tool has not

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been used in a multisite study to understand factors that may predispose patients to financial toxicity across patients seeking care in different health care systems. An important knowledge gap remains regarding the financial burden experienced by patients who receive care in different cancer care delivery systems.

Herein, we sought to better understand factors associated with financial toxicity including demographic factors, out-of-pocket costs (OOPCs), and employment status both prior to and after cancer diagnosis in a diverse patient population in three distinct health care systems. We surveyed patients in a tertiary academic medical center, a Veterans Affairs (VA) cancer clinic, and a county hospital using the COST tool and questions regarding demographic, clinical, and financial factors related to their cancer diagnosis. In this exploratory study, we aimed to evaluate factors associated with financial toxicity in the overall population and compare those in each of the three care settings.

METHODS

Study Population

We surveyed consecutive adult patients (age ≥ 18) with a cancer diagnosis who had a patient clinic visit from October 2017 to May 2019 at three diverse cancer care sites—Stanford Cancer Institute (SCI), VA Palo Alto Health Care System (VAPAHCS), and Santa Clara Valley Medical Center (SCVMC). All three cancer care sites are located within a 20-mile radius in the San Francisco Bay; however, the demographic characteristics of patients seen in each of these care systems are disparate. All three cancer centers see adult patients, and the average age of patients seen from 2017 to 2018 was 60.1 years at SCI, 70.1 years at the VAPAHCS, and 59.4 years at SCVMC.[23,24] SCI is an academic medical center and a tertiary referral center located in Palo Alto. The patients seen at SCI are predominantly White, high-income, employed, highly educated, and privately insured. VAPAHCS is part of the integrated health care system that serves veterans in Northern California. The veterans served by the VAPAHCS are predominantly White, low-income, unemployed, and insured by the VA. Finally, SCVMC is a county hospital that serves predominantly minority and low-income patients in Santa Clara County, most of whom are uninsured or publicly insured by Medicaid.

Survey Design

We designed a two-page survey that included three sections: (1) demographic and clinical information including sex, race, education level, insurance type, annual income, cancer type, cancer duration in years, and cancer stage; (2) the COST tool; and (3) employment and OOPCs.

Data Collection

We used a convenience sampling method at all three sites. Trained study staff recruited patients to participate in the study from the main lobby of each of the clinics, waiting areas, and chemotherapy infusion areas during the study period. Study investigators obtained verbal consent from participants. Participants were ensured their confidentiality would be maintained and no identifiable data would be obtained or shared. Translated surveys were used for patients who spoke Spanish or Vietnamese as a primary language, and onsite translators were available to assist patients. The SCI institutional review board, which oversees both SCI and VAPAHCS research, the VAPAHCS research administration committee, and the SCVMC institutional review board approved the study prior to data collection.

Statistical Analysis

Participants who completed the entire COST tool were determined a priori to be included in the analysis. Two study investigators (D.A.P. and M.R.) entered, tabulated, and analyzed data using Stata 15 software (Stata, College Station, TX). We used descriptive statistics to characterize patient demographic and clinical characteristics. We used the COST tool to calculate the COST score. We used multivariable linear regression to evaluate factors most associated with financial toxicity as represented by the COST score. All variables listed in Table 1, except cancer type, were included as covariables in the models. Monthly OOPC, cancer duration in years, and annual household income (AHI) categories were treated as continuous; all other variables were treated as categorical with reference categories noted in Table 1. Multivariable analyses were performed using the linear regression model to assess the independent factors associated with COST score in the overall population. Three separate linear regression models were performed for each of the three cancer care sites individually, with the same independent and dependent variables.

RESULTS

Patient Demographics

Across all three sites, 578 of approximately 1,100 (53%) patients approached during the study time frame participated in the study, with a nearly equal proportion of respondents by cancer care site. A total of 444 patients (77%) completed the entire COST tool and were included in the analysis, and the percent of incomplete surveys was similar by site (range, 22%-25%). Table 1 includes demographic characteristics of respondents by study site which are consistent with the baseline population seen at each site. The participants at SCI were predominantly non-Hispanic White (n = 86, 59%), with reported AHIs ≥ $50,000 in US dollars (USD) per year (n = 111, 77%), and insured predominantly by commercial insurance or Medicare (n = 113, 78%). The majority of the respondents at the VAPAHCS were non-Hispanic White (n = 101, 68%), male (n = 144, 97%), with reported AHIs of less than $50,000 USD (n = 122, 82%), and insured primarily by the VA

TABLE 1. Patient Demographic and Clinical Characteristics by Site

Characteristic	SCI	SCVMC	VAPAHCS	Total
n (%)	145 (33)	151 (34)	148 (33)	444
Mean COST score	24.48	16.22	21.84	20.79
SD COST score	11.82	9.7	8.73	10.70
Sex, No. (%)				
Female	72 (50)	98 (65)	2 (1.5)	172 (39)
Male[a]	67 (46)	52 (34)	144 (97)	263 (59)
Not specified or other	6 (4)	1 (1)	2 (1.5)	9 (2)
Education, No. (%)				
Greater than high school[a]	110 (76)	47 (31)	63 (42.5)	220 (49.5)
High school or less	31 (21)	95 (63)	69 (46.5)	195 (44)
Not specified	4 (3)	9 (6)	16 (11)	29 (6.5)
Ethnicity, No. (%)				
White[a]	86 (59)	32 (21)	101 (68)	219 (49)
Black	5 (3.5)	2 (1)	14 (9.5)	21 (5)
Hispanic	19 (13)	52 (34)	4 (3)	75 (17)
Asian or PI	23 (16)	54 (36)	3 (2)	80 (18)
Other	7 (5)	3 (2)	3 (2)	13 (3)
Not specified	5 (3.5)	8 (5)	23 (15.5)	36 (8)
Annual income, No. (%)				
> $150,000 USD	36 (25)	0 (0)	1 (1)	37 (8)
$100,000-149,000 USD	33 (23)	2 (1)	1 (1)	36 (8)
$75,000-99,000 USD	13 (9)	3 (2)	5 (3)	21 (5)
$50,000-74,000 USD	29 (20)	6 (4)	11 (7)	46 (10)
$25,000-49,000 USD	13 (9)	19 (13)	54 (36.5)	86 (19)
< $25,000 USD	15 (10)	110 (73)	68 (46)	193 (43.5)
Not specified	6 (4)	11 (7)	8 (5)	25 (5.5)
Cancer stage at diagnosis, No. (%)				
I[a]	13 (9)	25 (17)	7 (5)	45 (10)
II	27 (19)	15 (10)	10 (7)	52 (12)
III	19 (13)	29 (19)	15 (10)	63 (14)
IV	32 (22)	31 (20.5)	67 (45)	130 (29)
Not specified	54 (38)	51 (33.5)	49 (33)	154 (35)
Cancer type, No. (%)				
Lung	18 (12)	10 (7)	36 (24)	64 (14.4)
Breast	19 (13)	35 (23)	1 (1)	55 (12.4)
GI	20 (14)	22 (15)	27 (12.5)	69 (15.4)
Skin	2 (1.5)	0 (0)	9 (6)	11 (2.5)
Genitourinary	26 (18)	10 (7)	17 (0)	53 (11.94)
Head and neck	2 (1.5)	3 (2)	24 (7)	29 (6.53)
Lymphoma	13 (9)	10 (6.6)	2 (0)	25 (5.63)
Leukemia or myelodysplastic syndrome	13 (9)	7 (4.6)	0 (0)	20 (4.5)
Other	10 (7)	11 (7.3)	3 (1)	24 (5.41)
Gynecologic (uterine and ovarian)	1 (0.7)	15 (10)	0 (0)	16 (3.6)
Not specified	21 (14.5)	28 (18.5)	29 (0)	78 (17.57)
Cancer duration in years	4.8 (4.5)	2.83 (3.43)	2.95 (4.04)	3.59 (4.12)

(continued on following page)

TABLE 1. Patient Demographic and Clinical Characteristics by Site (continued)

Characteristic	SCI	SCVMC	VAPAHCS	Total
Patient-reported out-of-pocket monthly spending, No. (%)				
< $100 USD	37 (25.5)	89 (59)	90 (61)	216 (49)
$100-$199 USD	15 (10)	21 (14)	28 (19)	64 (14)
$200-$499 USD	24 (17)	18 (12)	9 (6)	51 (11.5)
$500-$99 USD9	30 (21)	11 (7)	3 (2)	44 (10)
$1,000 USD or more	17 (12)	5 (3)	3 (2)	25 (6)
Not specified	22 (15)	7 (5)	14 (10)	44 (10)
Employment prior to cancer diagnosis, No. (%)				
Not employed[a]	43 (30)	58 (38.5)	76 (51.5)	177 (40)
Employed	89 (61)	91 (60.5)	57 (38.5)	237 (53)
Not specified	13 (9)	2 (1)	15 (10)	30 (7)
Employment changes related to cancer diagnosis, No. (%)				
No change in employment status[a]	66 (45)	79 (52)	68 (46)	213 (48)
Stopped working or reduced work hours	63 (43)	70 (46)	52 (35)	185 (42)
Not specified	16 (11)	2 (1)	28 (19)	46 (10)
Payer type, No. (%)				
Commercial[a]	55 (38)	11 (7)	0 (0)	66 (15)
Medicare	58 (40)	25 (16.6)	3 (2)	86 (19)
Medicaid	15 (10)	75 (50)	0 (0)	90 (20)
Other	2 (1.5)	12 (8)	0 (0)	14 (3)
Charity or Ability to Pay	0 (0)	0 (0)	3 (2)	3 (1)
VA or Tricare Plan	2 (1.5)	0 (0)	139 (94)	141 (32)
Affordable Care Act plan or Covered California	0 (0)	23 (15)	0 (0)	23 (5)
Not specified	13 (9)	5 (3)	3 (2)	21 (5)

[a]Reference Category

Abbreviations: COST, COmprehensive Score for Financial Toxicity; SCI, Stanford Cancer Institute; SCVMC, Santa Clara Valley Medical Center; SD, standard deviation; USD, US dollars; VA, Veterans Affairs; VAPAHCS, VA Palo Alto Health Care System.

(n = 139, 94%). Conversely, the minority of the respondents at SCVMC were non-Hispanic White (n = 32, 21%) and the highest proportion self-identified as Asian and/or Pacific Islander (n = 54, 36%), with AHIs of less than $25,000 USD (n = 110, 73%), and insured by Medicaid (n = 75, 50%). A higher proportion of patients at the VAPAHCS reported stage III or IV cancer compared with the other sites (n = 82, 55%). Cancer diagnoses varied widely within and between the three sites and are described further in Table 1.

OOPCs and Employment Status

Figures 1A and 1B depict reported monthly OOPCs and spending categories by clinical site. The monthly OOPCs reported by study participants varied between and within sites. More than half of the patients surveyed at SCVMC and the VAPAHCS reported less than $100 USD per month OOPCs (n = 89 [59%] and n = 90 [61%], respectively), whereas at SCI, OOPCs were more variable, with a significant proportion of patients reporting expending more than $1,000 USD per month (n = 22, 15%). The majority of patients at the VAPAHCS reported OOPCs because of transportation expenditures (n = 83, 74%), whereas those at SCVMC and SCI reported OOPCs were mostly because of insurance, hospital or clinic care, and prescription medications.

Approximately half of all respondents reported employment prior to their cancer diagnosis (n = 237/444, 53%), of which many (n = 41, 17%) reported having to work reduced hours or discontinue employment (n = 144, 60%) as a result of their cancer diagnosis. This trend was seen across all three sites (Figs 2A and 2B). Although more patients were employed prior to diagnosis at SCI (n = 89/145, 61%) and SCVMC (n = 91/151, 60%) compared with the VAPAHCS (n = 38/148, 39%), a similar proportion of employed patients reported stopping work at SCI (n = 50/89, 56%), SCVMC (n = 60/91, 66%), and the VAPAHCS (n = 34/57, 60%).

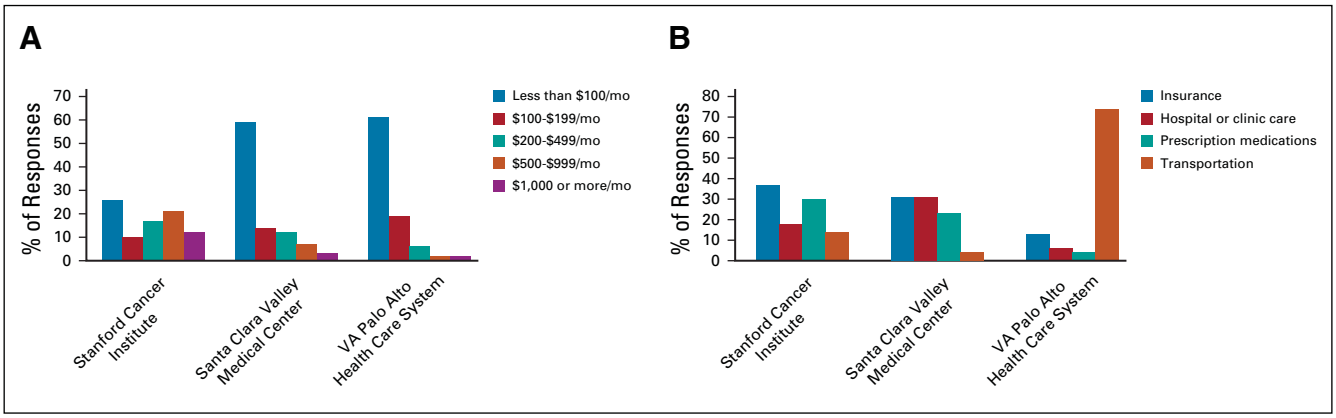

FIG 1. Patient-reported OOPCs: (A) monthly OOPCs by site and (B) out-of-pocket spending categories by site. OOPC, out-of-pocket cost; VA, Veterans Affairs.

Financial Burden by COST Score

The greatest financial burden as represented by the lowest COST score was among participants at SCVMC (mean 16.22, standard deviation [SD] 9.7), followed by the VAPAHCS (mean, 21.84; SD, 8.73) and then SCI (mean, 24.48; SD, 11.82).

In the multivariable linear regression analysis with pooled data from all three sites, lower AHI (β, –3.64; 95% CI, –4.51 to –2.77; $P < .0001$), higher patient-reported OOPCs (β, –1.47; 95% CI, –2.44 to –0.50; $P = .003$), and employment changes related to cancer diagnosis (β, –4.80; 95% CI, –8.24 to –1.35; $P < .0001$) were significantly associated with a lower COST score and increased financial toxicity. In the multivariable linear regressions by cancer care delivery site, at SCI, lower AHI (β, –4.54; 95% CI, –6.03 to –3.04; $P < .0001$) and employment changes related to cancer diagnosis (β, –6.65; 95% CI, –12.11 to –1.19; $P = .004$) were significantly associated with a lower COST score, but out-of-pocket spending was not. At SCVMC, lower AHI (β, –2.87; 95% CI, –5.12 to –0.61; $P = .014$) and higher out-of-pocket spending were significantly associated with a lower COST score (β, –1.77; 95% CI, –3.36 to –0.18; $P = .030$). At SCVMC, employment changes related to cancer diagnosis was not statistically significant, although it did show a trend toward lower COST scores (β, –4.75; 95% CI, –9.91 to 0.41; $P = .070$). At VAPACHS, none of the predictor variables were associated with COST score. Appendix Table A1 (online only) summarizes the results of all multivariable regression models.

DISCUSSION

Our study demonstrates varying aspects of financial burden among patients with cancer in three distinct cancer care sites—an academic medical center, a county hospital system, and a VA cancer clinic—and identifies specific factors that increase financial toxicity.

Lower AHI was highly associated with financial toxicity, which is consistent with prior work that validated the COST tool; however, prior work has been conducted primarily at academic medical centers.[21,22] Our study reveals a unique association between low AHI and increased financial burden experienced by patients in both an academic

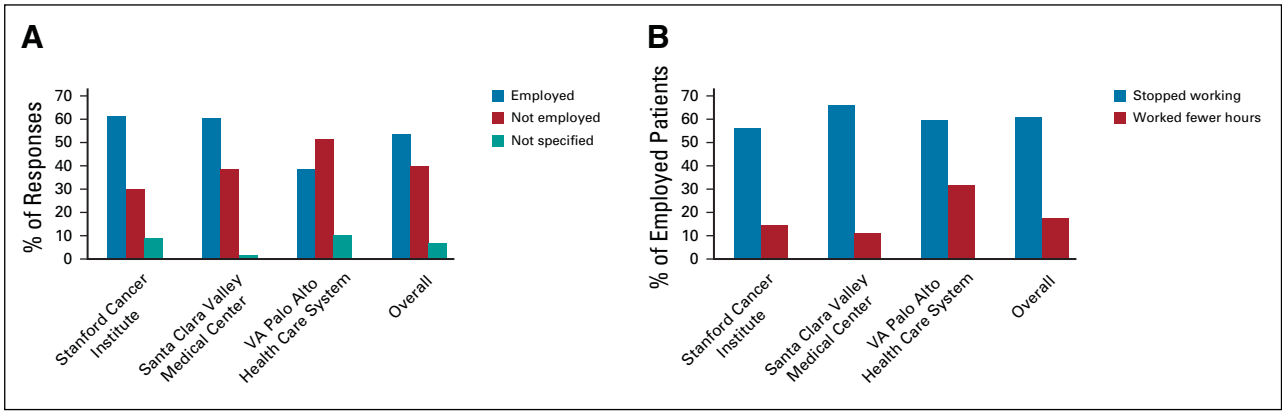

FIG 2. Patient-reported employment status: (A) employment status prior to cancer diagnosis and (B) employed patients' change in employment status after cancer diagnosis. VA, Veterans Affairs.

medical center and a county hospital. This finding is particularly important because the resources available to patients with low AHI such as social work services, patient assistance programs, and financial assistance are vastly different at these cancer care sites.[25,26] This finding supports the need for tailored interventions for populations with low income to mitigate financial toxicity such as robust financial assistance programs despite where they receive care.[27]

In contrast with a study from the Netherlands that found an association between prediagnosis unemployment and higher financial burden,[18] we found that patients who were employed prior to and had employment changes related to their cancer diagnosis had increased financial burden. This finding was significant in the overall analysis and at the academic medical center where a high proportion of patients also reported AHI > $50,000 USD. Our finding could represent the increased financial stress faced among patients who are gainfully employed and dependent on higher incomes for the cost of living in the San Francisco Bay Area—one of the most costly residential areas in the United States. We found that of the patients who were employed prior to cancer diagnosis, more than half had to stop working, suggestive that a cancer diagnosis can significantly affect employment status, which has important policy implications.[28,29] For example, the recent enactment of Medicaid 1115 Waivers,[30,31] which imposes work requirements for Medicaid eligibility, can potentially worsen financial toxicity among patients with cancer who have to discontinue work because of their diagnosis. Furthermore, with the rise in unemployment rates as a result of the COVID-19 pandemic, the financial toxicity related to unemployment may become increasingly significant for at-risk patients with cancer.[32]

Our results also showed that patients with greater OOPCs experienced increased financial burden. This was a significant finding at the county hospital despite lower reported OOPCs overall compared with the academic medical center and VA hospital. This might be expected because the COST tool measures subjective financial hardship and patients at the county hospital who reported low AHIs and were insured by Medicaid may be more vulnerable to smaller changes in OOPCs. As cost-sharing increases and the cost of cancer care rises, increases in OOPCs are likely to worsen financial toxicity for these vulnerable populations.[33] Previous studies have estimated that patients with cancer can pay a median of $393-$454 USD/month on prescription medications, copayments for office visits, insurance premiums, medical equipment, diet, and travel to health centers, causing patients to borrow money and/or declare bankruptcy.[6] Our study further revealed variations in OOPCs and that these expenditures differed on the basis of where patients received their care. Thus, tailored financial aid assistance programs are necessary for optimal care of patients with cancer in different cancer care settings on the basis of where patients have the most need.

In the VA population, our analysis did not identify any clinical or demographic factors that were associated with financial toxicity; however, this is likely because there was minimal variance in this population around the predictor variables. We did identify a pattern that the overwhelming majority of VA respondents reported transportation as a financial concern. These findings are consistent with a number of studies highlighting transportation costs as a significant barrier to receiving health care among vulnerable populations including veterans.[34,35] Enhanced travel benefits or other policies should be enacted to address transportation issues. The Mission Act in 2018, for example, expanded comprehensive care coverage for veterans by allowing those whose travel time to a VA facility is greater than 1 hour to receive care closer to their home.[36] Although the Mission Act may have some unintended consequences on quality of care, which are yet to be determined, further evaluation is warranted to understand if the Act has reduced financial toxicity for veterans as a result of removing transportation cost burden. Finally, greater emphasis is on the integration of telemedicine into cancer care, which has been implemented in the VA and has reduced travel distance and time for veterans,[37] and this should be evaluated as an opportunity to reduce financial burden among veterans.

Our study results should be interpreted in the context of limitations. Although our findings represent a heterogeneous population of patients with cancer in three distinct health systems, all three were located within a 20-mile radius in the San Francisco Bay Area and therefore may not be representative of other geographic areas in the nation. Additionally, we used the COST tool to objectively measure financial toxicity that does not differentiate the domains of financial toxicity including material versus psychologic hardship, which may have differed in the distinct populations.[14] However, to our knowledge, this multisite study is one of the first to describe variations in contributing factors for financial toxicity on the basis of where patients receive their cancer care. Second, this study uses self-reported data and a convenience sampling method, which may limit reliability and generalizability. Furthermore, a proportion of nonresponders and incomplete surveys were not included in the analysis, which may have introduced selection bias if certain populations were more likely to complete all questions in the survey. Although we conducted the study over different days and times to achieve the most diverse patient sample, it is possible our results may be subject to nonresponse bias. Finally, our multivariable models did not include age and other important clinical factors such as the number of comorbidities, cancer type, and treatment type, which prior studies have reported as possible contributors to financial toxicity.[38,39]

In conclusion, this study demonstrates that patients who are most vulnerable to increased financial toxicity are those who have employment changes related to their diagnosis, have lower AHIs, and have greater OOPCs. Thus, future studies, including our own efforts, should continue to assess these important contributing factors to financial toxicity and develop interventions tailored to health care settings and patient populations.

AFFILIATIONS

[1]Department of Medicine, Stanford University, Stanford, CA
[2]Department of Health Research and Policy, Stanford University, Stanford, CA
[3]Department of Hematology/Oncology, Santa Clara Valley Medical Center, San Jose, CA
[4]Veterans Affairs Palo Alto Health Care System, Palo Alto, CA
[5]Center for Primary Care Outcomes Research, Stanford University, Stanford, CA

CORRESPONDING AUTHOR

Divya A. Parikh, MD, 875 Blake Wilbur Drive, Stanford, CA 94305; e-mail: divyaa@stanford.edu.

DISCLAIMER

The content is solely the responsibility of the authors and does not necessarily represent the official views of the Agency for Healthcare Research and Quality.

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AUTHOR CONTRIBUTIONS

Conception and design: Divya A. Parikh, Sangeeta Aggarwal, Fa-Chyi Lee, Manali I. Patel
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Collection and assembly of data: Divya A. Parikh, Ritika Dutta, Debeshi Maitra, Fa-Chyi Lee, Manali I. Patel
Data analysis and interpretation: Divya A. Parikh, Meera Ragavan, James Dickerson, Debeshi Maitra, Fa-Chyi Lee, Manali I. Patel
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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Financial Toxicity of Cancer Care: An Analysis of Financial Burden in Three Distinct Healthcare Systems

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Open Payments is a public database containing information reported by companies about payments made to US-licensed physicians (Open Payments).

Manali I. Patel
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APPENDIX

TABLE A1. Multivariable Linear Regression of COmprehensive Score for Financial Toxicity Score

Significant Factors	Regression Coefficient	95% CI	*P*
Pooled Analysis			
Lower annual income	–3.64	–4.51 to –2.77	< .0001
Higher patient-reported OOPCs	–1.47	–2.44 to –0.50	.003
Employment change	–4.80	–8.24 to –1.35	< .0001
SCI			
Lower annual income	–4.54	–6.03 to –3.04	< .0001
Higher patient-reported OOPCs	–0.53	–2.02 to 0.97	.485
Employment change	–6.65	–12.11 to –1.19	.004
SCVMC			
Lower annual income	–2.87	–5.12 to –0.61	.014
Higher patient-reported OOPCs	–1.77	–3.36 to –0.18	.030
Employment change	–4.75	–9.91 to 0.41	.070
VAPAHCS			
Lower annual income	–0.83	–3.61 to 1.96	.552
Higher patient-reported OOPCs	–2.52	–5.90 to 0.86	.090
Employment change	–6.37	–16.6 to 3.81	.213

Abbreviations: OOPC, out-of-pocket cost; SCI, Stanford Cancer Institute; SCVMC, Santa Clara Valley Medical Center.