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Effects of a Patient-Friendly Medical Debt Financing Program on Access to Care and Social Outcomes

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Abstract

Objectives: To evaluate whether using a patient-friendly payment plan (CarePayment, CP) to finance hospital-acquired debt is associated with reductions in negative access-to-care and social outcomes typically associated with medical debt.

Methods: We compared a nationally representative sample of guarantors actively paying off CP debt (n=1,000) to comparable participants in The Commonwealth Fund 2014 Biennial Health Insurance Survey (n=1,145). We calculated the odds of reporting each outcome, adjusting for household income and total amount of debt.

Results: Compared to others with medical debt, CP guarantors were less likely to report not filling a prescription due to cost; skipping or avoiding needed medical tests and care due to cost; having a medical problem but not going to a doctor/clinic; being unable to pay for household necessities; and delaying education or career plans because of medical bills. CP guarantors were significantly more likely to report skipping preventive care screening due to cost.

Discussion: Our study provides preliminary evidence that a 0% APR line of credit, such as that offered by CP, can result in reductions in many of the negative access-to-care and social outcomes typically associated with medical debt and with negative long-term health effects. This finding is consistent with our previous research comparing outcomes among first-time CP users to those among repeat users, which demonstrated better outcomes among the repeat users. It is incumbent on those interested in reducing those negative effects to consider ways in which patients can have access to manageable payment options for medical bills. Policy and practice options could include increasing access to payment options like CP, and exploring how these programs can be used to cover high co-payments associated with prescription drugs.

Conclusion: CP use is associated with a reduction in multiple negative outcomes typically associated with medical debt. Programs like CP, in combination with other public health policy and practice solutions, have the potential to help patients successfully manage their medical debt, and in turn improve key determinants that influence their health.

Introduction

Out-of-pocket medical costs (including deductibles, copayments, coinsurance, and costs for uncovered services) are an important and increasing source of medical debt and medical bill problems. While findings from multiple national surveys indicate that the percentages of people reporting medical debt and medical bill problems have declined since implementation of the Affordable Care Act (ACA),[1,2] total cost sharing for hospitalizations, particularly for deductibles and coinsurance, has risen in recent years[3], and enrollment in high-deductible health plans is expected to continue to rise in the near future.[4] Potential changes to the ACA may exacerbate this issue by repealing certain current out-of-pocket cost sharing limits.

Medical debt stemming from underinsurance (i.e., having insurance but facing especially high out-of-pockets costs relative to household income) is also a growing public health concern. A recent study found that among seniors, self-reported financial hardship from medication costs has actually increased, despite increases in the proportion of seniors with prescription drug coverage. This appears to be the result of higher insurance premiums and higher out-of-pocket expenses, as well as the requirement that patients pay full cost for some medications.[5] Moreover, The Commonwealth Fund Biennial Health Insurance Survey ([BHIS], 2014) showed that the rate of underinsurance remained statistically unchanged from 2010 to after ACA implementation, and that underinsurance remained linked to medical bill problems.[6]

Medical debt and medical bill problems have been shown to have a negative impact on Americans' access to health care. In fact, medical debt has been shown to be an independent and *better* predictor of delayed or missed medical care and medications than insurance status.[7] Overall debt, and ratios of debt to income and debt to assets, are associated with foregoing medical or dental care in the past year, even after adjusting for socioeconomic and health characteristics, household income, and net worth. These associations between debt and forgoing care have been found to be driven largely by medical and credit card debt.[8] In addition, having medical or credit card debt is associated with increased medication non-adherence.[9] The national Kaiser Family Foundation/New York Times Medical Bills Survey conducted in 2015 found that persons with medical bill problems reported delaying or skipping health care because of cost at approximately two to three times the rate of persons without problems paying medical bills, regardless of insurance status.[10] The 2014 BHIS found that that while 23% of fully insured adults reported problems getting needed healthcare (e.g., not filling a prescription, not getting specialist care) in the past 12 months because of cost[1], among the underinsured, the rate was 44%.[6]

Medical debt and medical bill problems have also been linked to poor social outcomes, including reduced access to basic necessities, as well as to educational and job opportunities. The 2012 BHIS found that 25% of people reporting medical debt or medical bill problems were unable to pay for basic necessities (food, heat, or rent) over the past two years due to medical bills, and 22% reported delaying career or educational plans due to medical bills.[11] The national Health Tracking Household Survey (2010), as well as other local and national studies, have also demonstrated the link between medical debt and challenges with basic necessities, housing, and employment.[12,13]

One potential way to address the access-to-care and related social challenges created by high out-of-pocket medical costs is to provide patients access to payment plans that offer terms and

features that facilitate timely, but not overly burdensome, repayment of debt. This market-based solution could potentially have public health benefit, while supporting the financial solvency of hospitals.[14] CarePayment (http://www.carepayment.com; hereafter CP) is one program that provides 0% APR lines of credit to guarantors of debt incurred at participating healthcare providers. To date, the majority of CP's clients have been hospitals, although CP has an increasing number of medical group and ambulance service clients. While the specific payment terms vary, CP is commonly offered to individuals with debts up to $25,000 as a revolving line of credit, with monthly payments starting at the higher of either 4% of the debt or $25. Guarantors may add new charges from the same facility as the original financial obligation to their CP account, and they receive a single monthly bill for all services from the healthcare provider or provider network financed through CP.[14]

This paper considers the public health outcomes (access to care and social impact) of individuals using CP to pay off medical debt, compared to a separate national sample of Americans paying off medical debt, in order to explore whether using CP is associated with reduction in negative outcomes. We focus here on outcomes that reflect public health priorities, such as the social determinants of health[15], including access to care, access to basic household necessities, and pursuit of educational and job opportunities. The findings can help to inform healthcare providers, payers, policy-makers, and public health professionals seeking to identify mechanisms for ameliorating the negative consequences of medical debt and improving social determinants of health among patients and families.

Methods

This research used a survey of CP guarantors conducted in 2015 and The Commonwealth Fund Biennial Health Insurance Survey ([BHIS] 2014). The 2014 BHIS was used to create a comparison group of Americans with medical debt. The methods for the CP survey are described in detail elsewhere[16], but briefly, a random sample of guarantors was created from CP's internal customer database. The sample included guarantors from hospital-based accounts (which could include physician charges and/or facility charges), age 18 or older, who were actively paying off CP debt as of January 1, 2015. While the majority of guarantors were also the patient (84.6%), some were the parent or guardian or held another relation to the patient. Letters were mailed to each member of the sample (initial sample n=8,122) and then each potential participant was called by an independent market research firm up to four times. Using quota sampling, the firm made calls to potential participants until a 1,000 participant threshold was met; in the end 8,075 guarantors were called at least once (a 12.4% response rate). Once consent was obtained, the interviewer asked a series of questions about the respondent's experience with medical debt and the outcomes that could potentially be attributed to their debt, including access-to-care, social, and financial. The survey instrument used items from the BHIS to maintain comparability between the two data sets. CP also provided information about the total amount of debt each person was currently paying off; this information was added to the dataset using a unique identifier. Participants were sent a check for $10 as a thank you for completing the survey. We received a Waiver of Prior Authorization under HIPAA in order to contact CP guarantors, and study procedures were approved by the Institutional Review Board of Arcadia University (Federal-wide assurance #00000449).

The BHIS, conducted by The Commonwealth Fund, is designed to be representative of all adults age 19 or older living in the continental United States. The sampling design includes both landline and cellular telephones and disproportionally stratifies to include sufficient numbers of low-income households. The 2014 survey was administered between July and December of 2014. The landline portion of the survey achieved a 15.8% response rate and the cellular phone component achieved a 13.6% response rate.[17]

An integrative data analysis (IDA) framework was used to conceptualize the analysis.[18] IDA is particularly applicable to this project because it allows for comparison between CP guarantors and the general population, and given that the surveys were conducted at approximately the same time (July to December 2014 for the BHIS; January 2015 for the CP study), using the same measures, the challenges commonly associated with IDA were minimized for this project.[19]

To maintain comparability with the CP sample, individuals from the BHIS were included in the comparison group if they: a) completed the survey in English; and b) answered "yes" to: "Do you currently have any medical bills you are paying off over time? The bills can be from this year or previous years" (BHIS unweighted n=1,145). The latter criterion ensured that the BHIS group, like the CP group, represents persons currently paying off medical debt. Due to the complex sampling used for the BHIS, all analyses were weighted, using the person weights provided by The Commonwealth Fund for the BHIS respondents and a constant weight of 1 for all CP respondents. Frequencies were computed for all relevant variables, and logistic regression models were used to explore the probability of respondents experiencing each of the measured access-to-care and social outcomes of medical debt. All models controlled for household income (categorical: Less than $20,000; $20,000 - $39,999; $40,000 - $59,999; $60,000 - $79,999; $80,000 or more) and total amount of debt being paid off (categorical: Less than $2,000; $2,000 - $7,999; $8,000 or more). The total amount of debt being paid off over time by CP respondents was calculated by adding their CP high balance (provided by CP) to their reported amount of non-CP debt currently being paid off.

While we collaborated with CP to access information about guarantors (e.g., phone numbers, names, amount of debt), the study was conducted independently, such that CP staff were not involved in data collection, analysis, or report writing. The study was funded by the W.K. Kellogg Foundation.

Results

Demographic and Debt Profiles of Respondents

The majority of respondents in both surveys were non-Hispanic (93.9% of CP and 87.0% of BHIS) and White (88.6%, 71.3%) (Table 1). Approximately 40% of each sample reported their highest education level to be a high school diploma or less; and approximately half of respondents in each survey were employed full-time. The BHIS sample reported significantly lower household income compared to the CP respondents; 29.8% of BHIS respondents reported a total income of less than $20,000 compared to only 17.9% of CP respondents. Just under one quarter of the CP respondents (23.7%) reported that the patient who received the medical

services being paid off through CP was a Medicare beneficiary, compared to 15.1% of the BHIS sample.

Table 1: Demographic and Debt Profile of Included Respondents

	2015 CP Study		2014 BHIS	
Demographic Characteristics and p-Value[1]	# respondents	% total	# respondents	% total
Ethnicity (p<0.001)				
Not Hispanic or Latino	929	93.9	38,895	87.0
Hispanic or Latino	60	6.1	5,797	13.0
Race (p<0.001)				
White	867	88.6	31,699	71.3
African-American	48	4.9	7,663	17.2
Other (including Asian)	38	3.9	3,542	8.0
Multiracial	26	2.7	1,527	3.4
Education Level (p<0.001)				
Less than high school	62	6.2	4,880	10.9
High school graduate or equivalent	353	35.5	14,952	33.4
Some college but no degree	309	31.1	12,910	28.8
College graduate	199	20.0	8,306	18.6
Postgraduate	71	7.1	3,712	8.3
Employment Status (p<0.001)				
Employed full-time	523	52.4	22,001	49.0
Employed part-time	91	9.1	5,340	11.9
Retired	223	22.3	5,572	12.4
Disabled	76	7.6	3,047	6.8
Other	85	8.5	8,980	20.0
Household Income (p<0.001)				
Less than $20,000	153	17.9	12,688	29.8
$20,000 - $39,999	260	30.4	10,746	25.3
$40,000 - $59,999	225	26.3	5,699	13.4
$60,000 - $79,999	114	13.3	5,725	13.5
$80,000 or more	104	12.1	7,658	18.0
Medicare Status (p<0.001)				
Medicare beneficiary	236	23.7	6,796	15.1

[1] p-value for chi-square analysis comparing the two samples

Table 1: Demographic and Debt Profile of Included Respondents – *continued*

Debt Profile and p-Value[1]	2015 CP Study		2014 BHIS	
	# respondents	% total	# respondents	% total
Amount of CarePayment Debt				
Less than $500	184	18.5	-	-
$500 - $999	274	27.5	-	-
$1,000 - $2,499	378	38.0	-	-
$2,500 or more	160	16.1	-	-
Other Medical Debt Being Paid Off Over Time Within Past 12 Months				
Yes	588	59.6	-	-
No	398	40.4	-	-
Approximate Amount of Medical Bills Being Paid Off (p=0.19)				
Less than $2,000	471	49.4	20,771	47.4
$2,000 to less than $8,000	348	36.5	15,953	36.4
$8,000 or more	134	14.1	7,064	16.1

[1] p-value for chi-square analysis comparing the two samples

Despite the fact that the majority of CP guarantors (59.6%) reported multiple sources of medical debt, both samples had comparable amounts of debt currently being paid off (p=0.19), with nearly half the respondents reporting that they were paying off less than $2,000 in medical debt.

CarePayment Outcomes

In order to compare CP guarantors to other Americans with medical debt, binary associations between each negative outcome and CP participation were explored. The results of these analyses show that CP participants were significantly *less likely* to report the majority of the negative access-to-care outcomes measured, including not filling prescriptions, skipping treatment recommended by a doctor, and avoiding seeking needed medical treatment (all $p<0.01$) (Table 2). Similarly, CP guarantors were significantly less likely to report both social outcomes measured (both $p<0.001$).

Table 2: Binary Associations for Each Outcome, Comparing CP Guarantors to BHIS Respondents

Survey Question and p-Value[1]	2015 CP		2014 BHIS	
	Number	Percentage	Number	Percentage
Access-to-Care Outcomes				
In the last 12 months, was there any time when you did not fill a prescription for medicine because of the cost? (p<0.001)	289	29.0	15,474	34.5
In the last 12 months, was there any time when you skipped a medical test, treatment or follow-up recommended by a doctor because of the cost? (p=0.001)	329	33.0	17,022	38.0
In the last 12 months, was there any time when you had a medical problem but did not go to a doctor or clinic because of the cost? (p<0.001)	303	30.4	18,099	40.5
In the last 12 months, was there any time when you did not see a specialist when you or your doctor thought you needed one because of the cost? (p=0.76)	240	24.0	10,986	24.5
In the last 12 months, was there any time when you delayed or skipped preventive care screening, such as colon cancer screening because of the cost? (p=0.032)	246	24.7	9,790	21.9
Social Outcomes				
Have any of the following happened in the past two years because of medical bills? Have you been unable to pay for basic necessities like food, heat or rent because of medical bills? (p<0.001)	144	14.4	11,892	26.5
Have any of the following happened in the past two years because of medical bills? Have you delayed education or career plans because of medical bills? (p<0.001)	96	9.6	9,136	20.3

[1] p-value for chi-square analysis comparing the two samples

To further explore the impact of CP, logistic regression models were used to determine the odds of reporting the negative access-to-care and social outcomes. These models controlled for household income and the total amount of debt the individual was paying off, which the literature suggests can have impacts on the report of these outcomes. The results of these models were consistent with the binary associations. For example, compared to BHIS (2014) respondents with medical debt, CP guarantors were significantly *less* likely to report three negative access-to-care outcomes in the past 12 months, due to cost: not filling a prescription (OR=0.835); skipping a medical test, treatment or follow-up recommended by a doctor (OR=0.858); and having a medical problem but not going to a doctor/clinic (OR=0.684) (Table 3). However, CP guarantors were significantly *more* likely to report delaying or skipping preventive care screening in the past 12 months, due to cost (OR=1.341). In the area of social

outcomes, CP guarantors were significantly *less* likely to report during the past two years that because of medical bills, they were unable to pay for necessities like food, head or rent (OR=0.462), and they delayed education or career plans (OR=0.449).

Table 3: Results of Logistic Regression Models Comparing CP Guarantors to BHIS Respondents

Access-to-Care Outcomes: Because of cost, in the last 12 months...	Odds Ratio[1] (95% CI)
Did not fill a prescription	0.835 (0.717, 0.972)
Skipped a medical test, treatment or follow-up recommended by a doctor	0.858 (0.741, 0.994)
Had a medical problem but did not go to a doctor/clinic	0.684 (0.588, 0.796)
Did not see a specialist when you/your doctor thought you needed one	0.998 (0.850, 1.173)
Delayed or skipped preventive care screening	1.341 (1.141, 1.577)
Social Outcomes: Because of medical bills, in the past two years...	Odds Ratio[1] (95% CI)
Unable to pay for necessities (food, heat, rent)	0.462 (0.378, 0.565)
Delayed education or career plans	0.449 (0.355, 0.568)

[1] Each row represents one logistic regression model with outcome variable representing the odds of the respondent reporting the negative outcome listed in the first column. All models controlled for household income and total amount of debt being paid off.

Discussion

Our study provides preliminary evidence that a 0% APR line of credit, such as that offered by CP, can result in reductions in many of the negative access-to-care and social outcomes typically associated with medical debt and with negative long-term health effects. This finding is consistent with our previous research comparing outcomes among first-time CP users to those among repeat users, which demonstrated better outcomes among the repeat users.[16]

Recent efforts to address healthcare spending and medical debt have focused on reducing unnecessary care[20], increasing health insurance access[21], and increasing cost-of-care discussions between clinicians and patients[22]. While these efforts should result in a reduction in unnecessary care and improvements in access to care, out-of-pocket costs will remain for many patients and families, and even small amounts of debt have been associated with negative outcomes.[12] It is incumbent on those interested in reducing those negative effects to consider ways in which patients can have access to manageable payment options for medical bills. Policy and practice options could include increasing access to payment options like CP, and exploring how these programs can be used to cover high co-payments associated with prescription drugs.

Increasing access to payment plans like CP among more patients and providers may be a promising approach to helping patients manage medical debt successfully. For example, while we found that CP guarantors were overwhelmingly White, past national surveys have suggested that medical bill problems may be significantly more prominent among African Americans.[23] Identifying the reasons for this demographic profile of CP guarantors and, more importantly,

how access to programs like CP can be expanded in the African-American community, may be a worthwhile next step for this research. In addition, with 23.7% of our CP survey respondents reporting that the patient who received the medical services being paid off through CP was a Medicare beneficiary, it is clear that Medicare recipients can benefit from plans that allow manageable payments to be made over time. Given that our previous qualitative research on CP has suggested that elderly patients can be reluctant to make medical bill payments to a third party[24], future research might also focus on how to expand access to and appeal of programs like CP among the Medicare population.

In the domain of increasing the number of providers that offer programs such as CP, our previous qualitative research on CP outcomes for hospitals has shown that CP can have positive effects on bad debt rates and accounts receivable, billing processes and costs, and competitive advantage, particularly when the program is properly configured to meet the specific needs and characteristics of the hospital and its patient population.[14] CP has been increasing the range of its terms in order to better accommodate such needs and characteristics; for example, hospitals may now select repayment term lengths from three to 72 months. With programs like CP affording potential benefits not only for patients but also for providers, administrators could find uptake of programs like CP to be a double win.

Finally, while CP can help patients and their guarantors cover medical costs associated with facilities and physician charges, this program is not currently available to cover copayments or other out-of-pocket costs associated with prescription drugs, which present a challenge to many Americans.[4,5,25] Further conversations are needed about how programs like CP could cover prescription drugs, to reduce the likelihood that patients will skip doses, cut pills, or avoid filling prescribed medications entirely, or sacrifice other necessities in order to pay for prescription drugs.

We also recommend that future research explore why CP guarantors were significantly more likely than other Americans with medical debt to delay or skip preventive care screening because of cost (Table 3) and how programs like CP can leverage their access to patients through mailed bills and other correspondence to educate patients about out-of-pocket costs, coverage, and care. CP could use its data on guarantor birth date to include targeted preventive care screening messages in its monthly billing statements. These messages could also make patients aware that some health plans, including many high deductible health plans, currently require little or no out-of-pocket expense for such screenings.

The study has several limitations that should be taken into consideration. First, as there is some amount of self-selection among the CP guarantors, their comparability to the general BHIS respondent sample may be reduced. However, the study addressed this limitation by controlling for income in the analysis and by only selecting BHIS respondents who were also paying off debt over time. Secondly, both the BHIS and CP studies had low response rates, which may limit the generalizability of the results beyond those who answered the telephone. This is a limitation common to all telephone surveys, and was minimized by comparing the two equivalent groups (i.e., those who responded to telephone surveys). In addition, while the analysis was conducted using the IDA framework, it is acknowledged in the literature that there is no single appropriate way to handle complex sampling and weighted data in this context.[26] The potential impact of this limitation is that the standard errors of measurement are over-estimated, resulting in a larger

number of statistically significant results than may be warranted. Finally, the cross-sectional nature of the study means that reverse causality is possible: some participants may use CP because they are better off socially, instead of participants being better off socially because they use CP. While we cannot rule out this possibility, qualitative interviews with staff at CP clients hospitals about the effects of CP on patients suggested that CP does help patients and their families to manage medical expenses and avoid a wide range of financial, access to care, and other negative outcomes associated with medical debt.[14,24]

Conclusion

Out-of-pocket medical expenses remain an important and increasing source of medical debt and medical bill problems, including—but not limited to—decreased access to care and negative social outcomes, both of which impact health. Programs like CP, in combination with other public health policy and practice solutions, have the potential to help patients successfully manage their medical debt, and in turn improve key determinants that influence their health. This seems particularly true if such programs can be successfully applied to a broader range of patients and health services, and through a wider range of providers.

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