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Center for Financial Security
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Finances and Health: Clarifi Survey Data

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Over the past decade, a number of studies have explored how household finances affect individual health outcomes. Medication adherence is a common subject of these studies, as prescription drugs are both potential stressors for already stretched budgets and key elements of successful treatment for many conditions. Even in households that have insurance coverage for prescription drugs, the co-pays required by many insurance plans may be difficult for households to manage, and for households without insurance, prescription drug costs may be prohibitive. But failing to fill a prescription or quitting a medication regimen early can lead to worse overall health in the long run—when patients fail to take medications as directed, their risk of hospitalization increases and their health care costs generally go up (Viswanathan et al. 2012; Roter et al. 1998). Because they may determine the ability to afford medications, then, household finances may also be a determinant of clients' overall health.

Thus, interventions that support positive financial management behaviors may, in turn, improve individuals' health. The first step in developing such interventions is understanding the characteristics and needs of those who would benefit from them. This brief examines the characteristics of credit counseling clients who experienced problems paying for their medications and analyzes which factors affect clients' ability to pay for prescriptions.

Data

The data analyzed in this brief were collected by Clarifi, a leading nonprofit financial counseling provider that serves about 15,000 Philadelphia-area residents each year. In the summer of 2016, Clarifi surveyed a sample of its non-housing counseling clients to document their credit status and medication use. Clarifi sent the survey to 1,171 clients; 324 responded to the survey, for a 28 percent response rate.

Key Findings

Our results show strong correlations between financial well-being and overall health/mental health, and a relationship between financial well-being and struggles paying for prescription medications. Clients who experienced problems paying for prescription drugs were more likely than those without such problems to have a number of indicators of financial challenges. Factors associated with prescription payment problems include:

- Lower credit scores
- Spending more than $40 per month on prescriptions
- Lack of health insurance
- Lower financial well-being
- Lower overall health

These findings suggest that financial interventions designed to help clients budget more effectively and focus on health-related goals may improve medication adherence and thus patient health.

Clarifi provided de-identified administrative data, collected during counseling sessions, on all 1,171 clients, allowing us to compare the demographics of the 324 survey respondents to the 847 nonrespondents. Table 1 compares the two groups. Overall, survey respondents and nonrespondents were similar in terms of their incomes, monthly expenses, credit scores, late payments, household size, military service, and racial/ethnic backgrounds. Survey respondents had a slightly higher average number of appointments with Clarifi, and 37 percent of respondents never attended college, compared to 46 percent of nonrespondents. Although we generally find that survey respondents reflect the characteristics of all Clarifi clients who were invited to complete the survey, there may be unmeasured differences between respondents and nonrespondents not captured in the administrative data.

***Table 1**. Comparison of Survey Respondents and Nonrespondents*

	Respondents	Nonrespondents
Monthly Income	$2,635	$2,833
Monthly Expenses	$863	$906
Credit Score (Range 500–800[1])	624	617
Any Late Payments in Last 30 Days	67%	66%
Any Late Payments in Last 90 or 120 Days	55%	54%
Household Size	2.1	2.3
Ever Served in Military	10%	9%
Race/Ethnicity		
White Non-Hispanic	24%	27%
Black Non-Hispanic	59%	55%
Latino/Latina*	2%	5%
No. of Clarifi Appointments**	1.2	1.0
Highest Education		
High School or Less***	37%	46%
Some College	13%	13%
4-year College***	40%	31%
Graduate School	8%	9%
Observations	324	847

Source: Clarifi administrative data

*, **, and *** indicate statistically significant differences at the .10, .05, and .01 levels, respectively

[1] 91% of clients had credit scores within this range; the other 9% were dropped as outliers.

The remainder of this brief focuses on the survey respondents. As Table 1 shows, survey respondents had an average monthly income of $2,635 and average monthly expenses of $863. Their average credit score was 624. Sixty-seven percent had a 30-day late payment on their credit report, and 55 percent had a late payment of 90 or 120 days on their report.

The survey questions covered financial and health topics and included the Center for Financial Security's Financial Capability Scale and the Consumer Financial Protection Bureau's Financial Well-Being Scale. Table 2 summarizes the survey data. Respondents' average score on the Financial Capability Scale, which measures financial behavior and confidence, was 3.8 out of a possible 8. Respondents' average score on the Financial Well-Being Scale, a measure of individuals' subjective sense of their financial status, was 34 on a scale of 14 to 86, similar to average scores in other studies of similar lower-income populations. Figure 1 shows the distribution of Financial Well-Being Scores, which are concentrated between 33 and 41.

***Table 2.** Average Survey Responses*

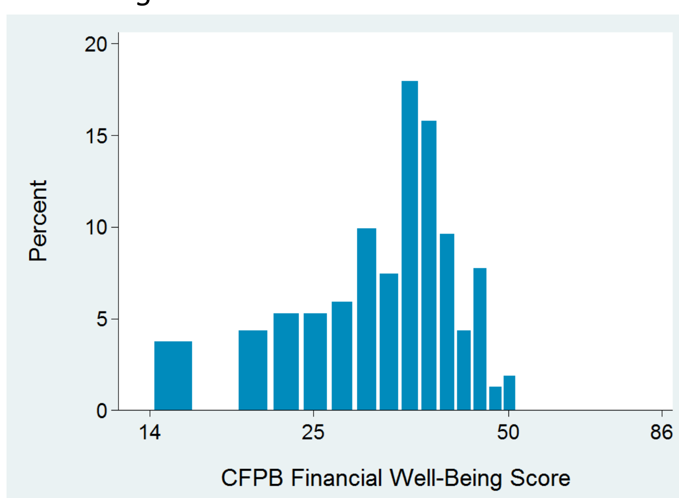
	Average
Financial Capability Scale (Possible range 0–8)	3.8
CFPB Financial Well-Being Scale (Possible range 14–86)	33.5
Any Chronic Disease[H]	52%
High Blood Pressure[H]	37%
Sought Help from Mental Health Professional	29%
Health Insurance Coverage[H]	90%
Recent Accident or Injury[H]	18%
Currently Taking a Prescription	59%
Didn't Take/Took Less Medicine in Past 4 Weeks Because of Cost[1]	14%
Ever Experienced a Problem Paying for Medication[1]	20%
Currently Taking a Prescription: Experienced a Problem Paying for Medication	35%
Currently Taking a Prescription: Monthly Spending on Medications	
$1–$20	52%
$20–$40	15%
$40–$60	11%
$60 or more	11%
Not Sure	11%
Overall health score (Possible range 6–30)	22.2
Mental health score (Possible range 4–20)	14.1
Observations	324

Source: Clarifi client survey

[1] Applies to all respondents, not only those currently taking a prescription

[H] Applies to any member of client's household

***Figure 1**. Distribution of Respondents' Financial Well-Being Scores*



Just over half (52 percent) of households had a member with at least one chronic disease, defined as a diagnosis of asthma, high blood pressure, diabetes, emphysema, or heart disease; 37 percent of households had a member with high blood pressure. Twenty-nine percent of survey respondents had sought help from a mental health professional in the past year. Ninety percent of respondents' households were covered by health insurance. A substantial proportion (59 percent) of respondents were currently taking a prescription medication.

Among all respondents, 14 percent of clients did not take medication, or took less than prescribed, because of cost at some point in the past four weeks; In total, 20 percent of respondents had ever experienced a problem paying for medications. These rates of prescription cost problems are similar to proportions found in other studies in the United States. For example, the U.S. Financial Capability Study found that 15 percent of Americans did not fill a prescription because of the cost in the past year (FINRA 2016), and the Federal Reserve's SHED survey found that 11 percent of all respondents went without prescription medicine during the past year because of the cost (Federal Reserve System 2016).[1]

Among survey respondents with current prescriptions, 35 percent had ever experienced a problem paying for a medication. About one-half (52%) of clients currently taking prescriptions spent $20 or less each month on medication; 15 percent spent $20 to $40, and just over one in five spent more than $40 per month. Eleven percent of clients with a prescription were unsure of their monthly medication payments.

Comparing Prescription Drug Recipients With and Without Cost Problems

We examined differences between prescription drug recipients who experienced problems paying for medications and those who did not have such problems, considering only the 59 percent of respondents who were currently taking prescription medications. Table 3 (see page 4) compares these two groups.

Among respondents actively taking prescriptions, clients with higher credit scores were less likely to experience difficulties paying for prescription drugs, as shown in Figure 2. Lacking health insurance was highly correlated with prescription cost problems. As Figure 3 shows, 71 percent of households with active prescriptions who lacked health insurance experienced problems paying for prescription medications, compared to 32 percent of households with health insurance.

***Figure 2**. Prescription Payment Problems by Credit Score*

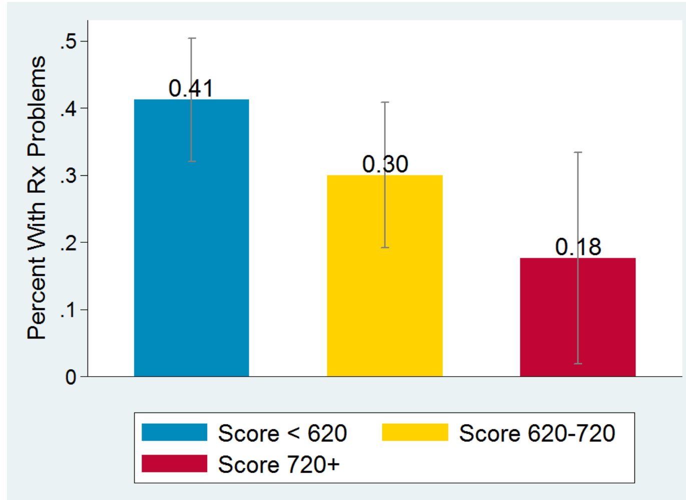
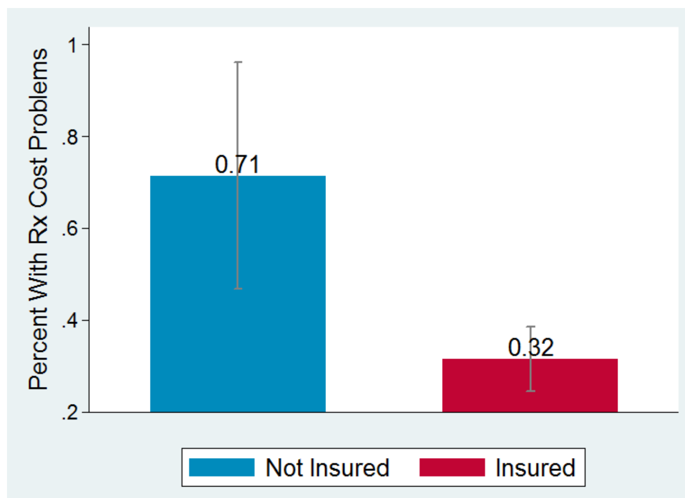


***Figure 3**. Prescription Payment Problems by Insurance Status*



Respondents with problems paying for prescriptions were less healthy, with slightly lower overall health and mental health scores, differences that are statistically significant. Higher health scores signify healthier individuals. Clients with cost problems also typically spent more money on medications each month; 27 percent of those with no cost problems spent more than $20 per month on medications, while 58 percent of clients with cost problems spent more than $20 per month on their prescriptions.

[1] Both the FINRA and SHED surveys examine respondents from the general U.S. population, not lower-income households.

Households with a member who recently experienced an accident or injury were also more likely to have payment problems.

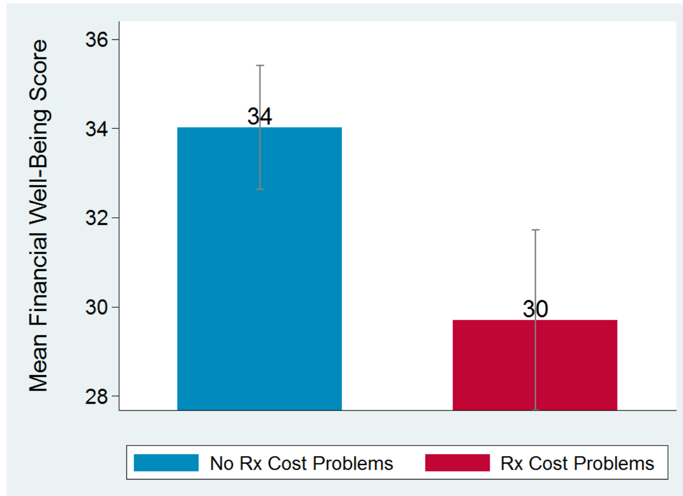
***Table 3**. Comparison of Prescription Recipients With and Without Cost Problems*

	No Prescription Cost Problems	Prescription Cost Problems
	Average	Average
Overall Health Score (Possible range 6–30)**	21.8	19.9
Mental Health Score (Possible range 4–20)**	14.1	12.9
1 or More Chronic Diseases[H]	66%	67%
Health Insurance Coverage**[H]	97%	85%
Monthly Medication Spending		
$1–$20***	63%	30%
More than $20***	27%	58%
Not Sure	10%	12%
Financial Capability Scale (Possible range 0–8)	3.6	3.2
Ability to Make Ends Meet in a Financial Emergency		
Not at all confident	41%	53%
Somewhat confident	42%	36%
Very confident	16%	11%
Any Late Payments in the Last 30 Days	71%	82%
Any Late Payments in the Last 90 or 120 Days*	52%	65%
Recent Accident or Injury**[H]	15%	29%
Monthly Income	$2,606	$2,490
Credit Score (Range 500–800[1])*	628	604
CFPB Financial Well-Being Scale (Possible range 14–86)***	34	30
Observations	123	66

Source: Clarifi client survey
*, **, and *** indicate statistically significant differences at the .10, .05, and .01 levels, respectively
[1] 91% of clients had credit scores within this range; the other 9% were dropped as outliers.
[H] Applies to any member of client's household

A number of indicators suggest that those with problems paying for prescription drugs also have other financial challenges. Prescription drug recipients with cost problems had significantly lower scores on the Financial Well-Being Scale, as shown in Figure 4, scoring an average of 30 compared to an average of 34 for clients without prescription payment problems. Although respondents without payment problems scored higher on the Financial Capability Scale than those with such problems (average score of 3.6 versus 3.2), this difference is not statistically significant.

***Figure 4**. Financial Well-Being by Prescription Cost Problems*

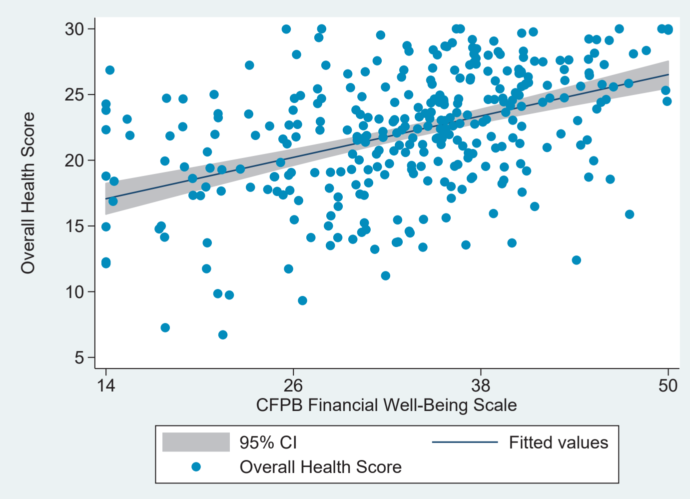


Respondents with prescription payment problems were also more likely to have 90- or 120-day late payments in their credit reports, and they tended to have lower credit scores. Respondents without cost problems had an average credit score of 628, compared to 604 for those with cost problems, a statistically significant difference. However, we found no significant differences between the revolving, installment, and real estate balances of prescription drug recipients with and without cost problems (not shown in the table). We also found no significant differences in household income between the two groups.

Relationships Between Personal Finances and Health

Because the survey included both financial and health questions, we are able to look at the relationships between these two domains. Overall, we found a positive correlation between the overall health and mental health of survey respondents and their scores on the Financial Well-Being Scale, with a similar trend between the two elements, as shown in Figure 5. These results suggest that financial well-being and health are closely related.

Figure 5. *Relationship Between Overall Health and Financial Well-Being Scores*



Using logistic regression, a technique that allows us to look at multiple factors at once, we examined which factors might increase the risk of prescription cost problems. We display the results in Table 4 (see page 6) as marginal effects. Columns 1–3 include different sets of variables. Higher credit scores decrease the likelihood of prescription cost problems. Clients who spend more than $40 per month on prescription drugs are more likely to have prescription cost problems. Clients with health insurance are less likely to experience cost problems, as are healthier individuals. Perhaps surprisingly, clients with a household member who has a chronic disease are less likely to experience cost problems, potentially because the ongoing nature of their medication costs gives them more time to budget for these expenses. Black respondents were more likely to experience prescription cost problems. Receiving public assistance (through SSI or SNAP) decreases the likelihood of experiencing cost problems, probably because those clients are more likely to be receiving Medicaid, which has very low or no co-pays. Clients with Financial Well-Being scores greater than 38 are less likely than those with lower scores to have problems paying for their prescriptions.

None of the other variables examined were significantly related to the likelihood of experiencing cost problems, including income, respondents' number of appointments with Clarifi, seeking help from a mental health professional, household size, and whether a member of the client's household had an accident during the past 12 months.[2]

Because of missing data, our regression analysis only examines 118 people; the small sample size may affect the validity of the results. The results are suggestive of important relationships between finances and health, but more research is needed.

Conclusion

Our findings suggest that clients who struggle to pay for prescription medications spend more on their monthly medications, have lower rates of health insurance, and are generally less healthy. They also have lower credit scores and levels of financial well-being. Overall, we find a significant positive correlation between health and financial well-being.

Our regression findings show the risk factors that may predict which clients experience problems paying for prescription medications. Lower levels of overall health, lower credit scores, a lack of health insurance, and spending more on monthly medications may all increase the risk of prescription cost problems.

These results suggest that financial interventions may be able to improve medication adherence and, consequently, patient health. Helping clients to improve financial management and focus on their health-related goals may lead to better planning for prescription costs and hence fewer prescription medications skipped or reduced because of the cost.

Works Cited

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[2] We did not have data on clients' age or gender, so we were unable to examine the relationship between those variables and prescription cost problems.

***Table 4**. Marginal Effects of Logistic Regressions on Prescription Cost Problems*

	(1)	(2)	(3)
Monthly Income (Range \$0–\$9,416)	-0.0134	-0.0025	-0.0204
	(-0.39)	(-0.07)	(-0.78)
Credit Score/100 (Range 500–800[1])	-0.0898*	-0.110**	-0.115**
	(-1.77)	(-2.21)	(-2.27)
Monthly Prescription Spending Exceeds \$40	0.239**	0.238**	0.227**
	(2.18)	(2.23)	(2.03)
Health Insurance Coverage[H]		-0.370*	-0.432***
		(-1.90)	(-2.82)
Financial Well-Being Score 26–38	-0.0673	0.0297	0.0416
	(-0.57)	(0.25)	(0.41)
Financial Well-Being Score 38+	-0.264**	-0.166	-0.167*
	(-2.27)	(-1.36)	(-1.65)
1 or More Chronic Diseases[H]		-0.125	-0.170**
		(-1.55)	(-2.22)
No. of Clarifi Appointments		0.0261	0.0346
		(0.84)	(1.01)
Sought Help from Mental Health Professional		0.0346	0.109
		(0.37)	(1.27)
Recent Accident or Injury[H]		0.128	0.0940
		(1.23)	(0.93)
Overall Health Score (Possible range 6–30)		-0.0129	-0.0228**
		(-1.40)	(-2.31)
Black			0.211**
			(2.53)
Household Size			0.0144
			(0.53)
Receiving Public Assistance			-0.286***
			(-3.08)
Observations	118	118	118

*, **, and *** indicate statistically significant differences at the .10, .05, and .01 levels, respectively. T-statistics are in parentheses.

[1] 91% of clients had credit scores within this range; the other 9% were dropped as outliers.

[H] Applies to any member of client's household

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