

Pathways between health and financial well-being

Introduction

Our objective is to better understand the effects of chronic conditions and health perceptions while controlling for a wide range of sociodemographic and individual characteristics. We use two measures of financial well-being: the Consumer Financial Protection Bureau (CFPB) Financial Well-being Score and self-assessment of retirement preparedness. Specifically, we ask: How are objective and subjective health variables related to financial well-being measures? Which objective health conditions and experiences are most strongly associated with self-assessed health? How are individual characteristics or traits, such as economic preferences, related to financial well-being? Is there evidence to support a causal relationship between health and financial well-being?

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Poor health can result in out-of-pocket medical costs and negatively affect employment and income, with longer-term consequences including reduced human capital and lower savings accumulation (Capatina, 2015; Hosseini et al., 2021; Meer et al., 2003). Out-of-pocket medical costs can strain household budgets, jeopardizing the ability to meet current and future needs (Becker et al., 2022; Ward et al., 2021). In our sample, respondents averaged \$1,183 in out-of-pocket medical expenses over the prior two years, and 13% reported at least one overnight hospital stay. Chronic health conditions can also reduce a person's (or their caregiver's) ability to work, lowering income and long-term wealth accumulation. Even the youngest age group in our sample is affected: 23% of millennials report that health issues limit their ability to perform at least one daily activity, and nearly 10% report that health affects their work. These patterns are consistent with prior research linking poor health to reduced earnings, employment, and income (for example, Arrieta and Li, 2023; Babiarz and Yilmazer, 2017; Biasi et al., 2021; De Nardi, 2025; García-Gómez et al., 2013; Mojtabai et al., 2015).

Health perceptions are also closely related to how individuals perceive their financial situation. In our sample, respondents in excellent health rate their retirement preparedness 1.07 points higher on a 4-point scale (2.85 versus 1.78) than those in poor health, and on average, score 18 points higher on the CFPB Financial Well-being Scale. These results highlight the strong relationship between health and financial well-being across multiple measures.

A key challenge in this area is establishing the direction of the relationship. While there's substantial evidence that poor health can negatively impact household finances, financial stress and fragility may also contribute to worse physical and mental health (Blundell et al., 2023; Meer et al., 2003). Using data from the Understanding America Study, we explore how chronic conditions and self-perceived health are related to financial well-being, while addressing the potential for this relationship to run in both directions.

Few existing studies integrate chronic conditions, subjective health perceptions, and financial well-being within a comprehensive framework. Issues identified in the existing literature suggest a need for empirical approaches that encompass multiple pathways between health and financial well-being, including related individual traits. For example, we find that individuals with higher cognitive ability and personality traits such as higher conscientiousness and lower neuroticism report substantially higher financial well-being. These relationships operate directly on financial well-being and also through associations with higher self-perceived health, which, in turn, affects financial well-being.

If chronic conditions and self-perceived health status shape financial well-being, then these elements are important considerations for public policy interventions aimed at

improving financial outcomes. A deeper understanding of the connections between health and financial well-being can also contribute to more effective financial planning and advising, in particular, for populations disproportionately affected by health disparities.

Background

Financial well-being. Financial well-being can be defined in a number of different ways, but common elements include the ability to meet current and ongoing financial obligations, feeling secure in one's financial future, and the ability to absorb shocks.¹ Although each of these aspects can be measured separately, composite measures of financial well-being, such as the CFPB Financial Well-being Score (FWB Score),² encompass financial behaviors, self-perceptions of well-being, and quantifiable financial outcomes in a single variable. Factors that influence individual components of financial well-being, such as retirement adequacy or financial satisfaction, have been individually studied,³ but the FWB Score has gained wide acceptance as a comprehensive measure and is a common reference point (Mercado et al., 2024). Because of its widespread use and availability, as well as evidence of construct validity,⁴ the CFPB's financial well-being metric is used for the analysis in this paper. We also measure financial well-being using self-assessed retirement preparedness.

Chronic health conditions. As compared with one-time health shocks, chronic health conditions are any diseases or conditions that last for longer periods of time. Examples of chronic diseases include heart disease and stroke, lung disease, cancer, diabetes, obesity, arthritis, Alzheimer's, epilepsy, tooth decay, and mental illness (Centers for Disease Control and Prevention, 2024). Chronic diseases are the leading causes of illness, disability, and death and the leading drivers of health care costs in the United States (Hacker, 2024). These conditions affect people of all age groups, genders, and ethnicities. Although most American adults have at least one chronic condition, the prevalence tends to increase with age, with 81% of those age 65 and over

1 See, for example, Consumer Financial Protection Bureau (2025), Boston University (2025), Brügggen et al. (2017).

2 See Consumer Financial Protection Bureau (2025) for a list of the CFPB survey questions. The response to each question is on a 10-point scale. The totals of the ten responses are added to arrive at a score that ranges from 0 to 100.

3 For a review of the FWB literature, see Coats and Bajtelsmit (2026b).

4 Khashadrourian and Harrison (2024) validate the CFPB Financial Well-being Scale by showing that the scores are directionally consistent with financial well-being ranked based on financial ratios.

having more than one chronic condition and approximately 12% experiencing five or more (Buttorff et al., 2017).

Mental health problems generally have been found to be more consequential for household finances than physical health, although causal inference is more difficult because the chronic nature of the condition makes it impossible to establish the date of onset (Hassan et al., 2021; Swensen & Urban, 2023).

Personality traits, cognitive factors, and economic preferences. Certain personality traits have been associated with both financial well-being and health.⁵ A standard survey methodology for assessing these individual characteristics results in scores in each of the “Big Five” personality traits: openness, conscientiousness, extroversion, agreeableness, and neuroticism (McCrae & John, 1992). Based on previous research, personality traits emerge as significant factors for financial well-being indicators.⁶ In addition to financial well-being, personality has also been associated with health outcomes (Jerram & Coleman, 1999; Luo et al., 2023; Murray & Booth, 2015).

Financial well-being is also associated with risk and time preferences as well as several cognitive factors, including financial literacy, numeracy, and financial self-efficacy. This literature is summarized in Coats and Bajtelsmit (2026b). Risk and time preferences are additional predictors of future life outcomes, including those that significantly affect financial well-being (Almlund et al., 2011; Golsteyn et al., 2014). Coats and Bajtelsmit (2026a) find that the individual discount rate, or the rate at which a person is willing to forgo current consumption for future consumption, is negatively associated with multiple financial well-being indicators. Many studies have found a strong positive relationship between financial literacy and financial well-being (Lusardi & Streeter, 2023). In addition, financial literacy is positively related to health-promoting behaviors and health status (Meyer, 2016).

Socioeconomic and demographic characteristics. Health outcomes vary by income and socioeconomic status. Numerous studies document that individuals with lower socioeconomic status face barriers to accessing health care, report lower use of preventative care, and experience adverse health outcomes and shorter life expectancy (McMaughan et al., 2020; Pickett & Wilkinson, 2015; Han et al., 2021).

Researchers have documented patterns between health and other demographic variables related to socioeconomic status such as race, ethnicity, income, and marital status (Grutman, 2021; Maharlouei et al., 2020; Park & Yang, 2021). Capatina (2015) and Hosseini et al. (2021) show that poor health contributes significantly to income inequality through adverse effects on productivity.

Data

We analyze survey data from the Understanding America Study (UAS),⁷ a nationally representative internet panel of households. The survey data include measures of financial well-being, subjective health perceptions, health history, as well as measures of individual characteristics such as time and risk preferences, financial literacy, financial efficacy, personality traits, and sociodemographic background. The core survey, covering approximately 15,000 respondents in 5,000 households, includes full demographics, wealth, and income data (modeled after questions in the Health and Retirement Study), updated regularly. We use the UAS comprehensive file and include respondents who are age 29–79 in wave 15, have a CFPB Financial Well-being Scale score, and an elicited discount rate.⁸ The ages selected correspond to individuals who are in the generations commonly referred to as early baby boomers (born 1946–1954), late baby boomers (born 1955–1964), Generation X (born 1965–1980),⁹ and millennials (born 1981–1996). In addition to the health variables described in more detail below, we include controls for individual characteristics and demographics.

Survey respondents were asked to self-assess their health from poor to excellent. Figure 1 shows that all four age groups exhibit a range of health perceptions. Poor health can limit an individual’s activities or ability to work. As shown in Figure 2, the percentage of people who indicate that their health impacts their activities increases with age category. Not surprisingly, these are more likely to be problems for the oldest respondents in our sample. However, even the youngest age group is impacted by health, with 23% of millennials indicating that health issues limit their ability to perform at least one daily activity and nearly 10% indicating that health affects their work.

5 For examples, see Asebedo et al. (2019), Becker et al. (2012), Coats and Bajtelsmit (2026a, Nabeshima and Seay (2015), Parise and Peijenberg (2019), Strömbäck et al. (2020), and Xu et al. (2015).

6 See Campbell et al. (2023) for a review of the literature related to the Big Five and financial planning.

7 The Understanding America Study (uasdata.esc.edu) is a probability-based internet panel of U.S. adults administered by the Center for Economic and Social Research at the University of Southern California. The full panel includes more than 15,000 respondents representing the entire United States.

8 Due to differences in the timing of the surveys that include variables necessary for our study, we use data from more than one survey year. Although the discount rate elicitation occurred one year after the other data we’re using in this study was collected, we don’t believe this is a problem. Although some studies have shown that individual discount rates decrease with age, they’re relatively stable in the short term (Kureishi et al., 2021).

9 It’s common to treat early and late baby boomers separately because these subgroups were shaped by different key events and cultural climates. The post-war period was characterized by optimism and prosperity, whereas the late baby boomers who were in their teens in the 1970s saw greater political and economic upheaval. See Beresford Research (2025).

FIGURE 1. SUBJECTIVE HEALTH BY GENERATION

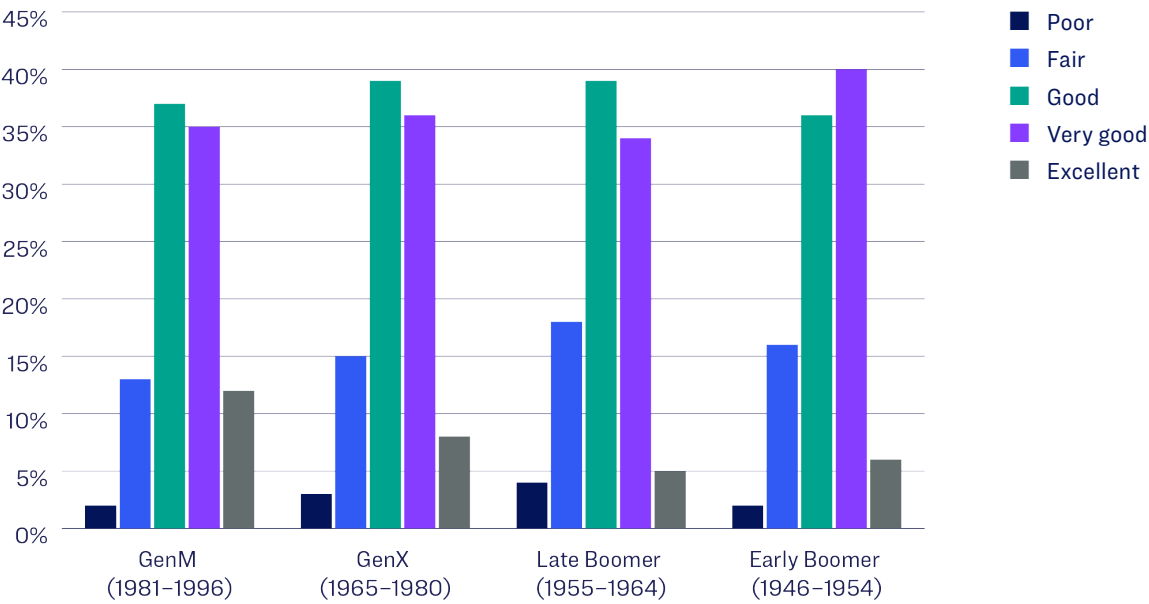
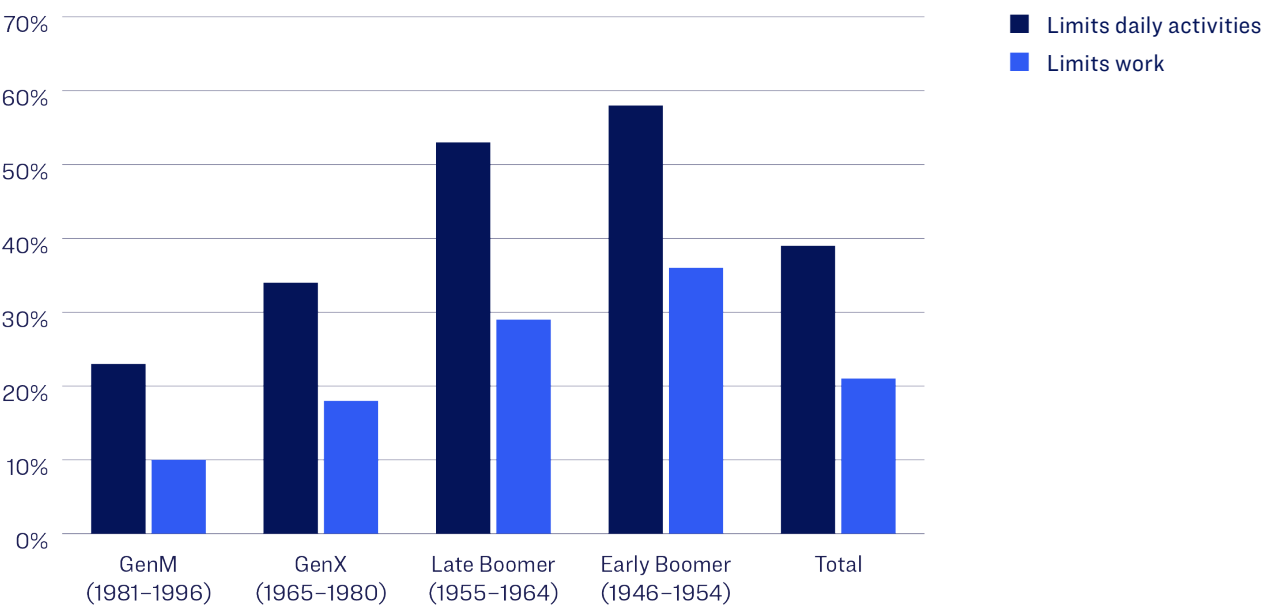


FIGURE 2. PERCENTAGE OF RESPONDENTS WHOSE HEALTH LIMITS DAILY ACTIVITIES AND WORK



Other health information in our dataset includes incidence of chronic diseases, number of outpatient surgeries in the previous two years, number of hospital stays and nights in the hospital, and out-of-pocket medical expenses. The vast majority of the sample has health insurance, ranging from 74% of millennials to 98% for the older boomers. The UAS asks respondents if they have “ever had” the following conditions: obesity, stroke, heart problems, cancer,

arthritis, high blood pressure, lung problems, diabetes, or psychological problems. These are binary variables, with “yes” answers coded as 1. Table 1 summarizes the percentage of the sample, in total and by generation, that reports ever having had each of the chronic conditions. The incidence of most chronic conditions increases with age group, with the exception of psychological problems.

TABLE 1. PERCENT REPORTING CHRONIC CONDITIONS, BY GENERATION

Chronic Conditions	GenM (1981–1996)	GenX (1965–1980)	Late Boomer (1955–1964)	Early Boomer (1946–1954)	Total
Ever had diabetes	8.9%	17.5%	25.3%	28.1%	18.00%
<i>N</i>	1511	1877	1296	865	5549
Ever had stroke	0.6%	1.4%	3.2%	3.9%	2.0%
<i>N</i>	1511	1880	1299	865	5555
Ever had heart disease	3.6%	6.7%	13.3%	20.3%	9.5%
<i>N</i>	1511	1882	1299	864	5556
Ever had cancer	2.1%	4.9%	9.7%	19.5%	7.5%
<i>N</i>	1512	1880	1299	865	5556
Ever had arthritis	7.3%	23.4%	42.7%	55.4%	28.50%
<i>N</i>	1510	1880	1299	866	5555
Ever had high blood press	21.2%	36.5%	51.3%	60.0%	39.1%
<i>N</i>	1515	1883	1300	866	5564
Ever had lung disease	2.7%	3.9%	7.5%	8.0%	5.1%
<i>N</i>	1512	1881	1299	865	5557
Ever had psychological problems	27.3%	23.3%	19.5%	12.9%	21.9%
<i>N</i>	1510	1878	1299	866	5553
Obese (currently)	40.60%	45.40%	39.60%	37.30%	41.50%
<i>N</i>	1517	1886	1302	866	5571

Source: UAS Survey response to questions asking if the respondent “ever had” each specific condition. Obese is equal to 1 if the respondent’s body mass index (BMI) is 30 or higher.

Financial well-being of the sample

This study uses two measures of financial health: the CFPB FWB Score and subjective retirement preparedness. The range of the FWB Score is from 0 to 100. For this sample, the scores range from 14 to 95, and the average score increases with generational group as shown in Table 2.

TABLE 2. AVERAGE FINANCIAL WELL-BEING SCORE, BY GENERATION

Generation Group	Average FWB Score
GenM (1981–1996)	52.44
GenX (1965–1980)	54.28
Late Boomer (1955–1964)	60.65
Early Boomer (1946–1954)	66.96
Total	57.24

Note: UAS Survey 578, Wave 15, Variable c15wellbeingscore

Retirement preparedness is based on a subjective assessment in which the respondents rated themselves as being very, somewhat, not too, or not at all prepared for retirement. This variable is created using the following question from UAS 457:

How well prepared financially (are/were) you for retirement? Please give yourself a grade from A to D, where A means you are very well prepared and D means not prepared at all.

Figure 3 summarizes the self-assessed retirement preparedness of our sample. On average, the percentage reporting being somewhat or very prepared for retirement increases with generational group, as illustrated in Figure 4.

FIGURE 3. SUBJECTIVE ASSESSMENT OF RETIREMENT PREPARATION

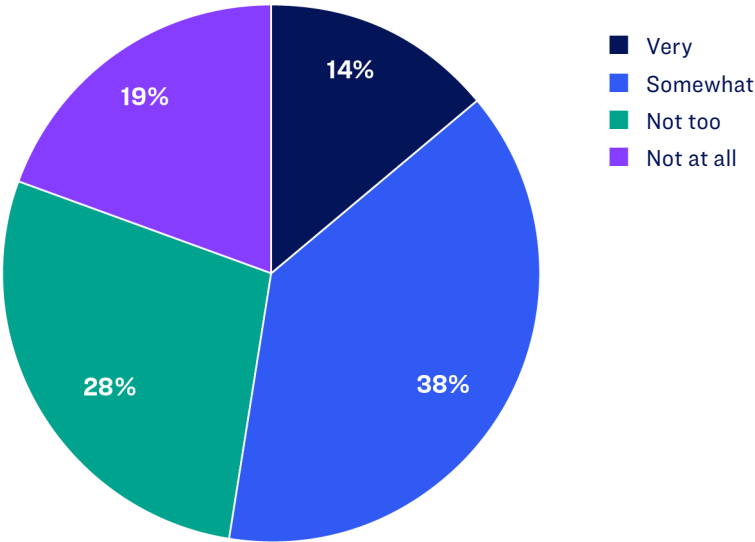
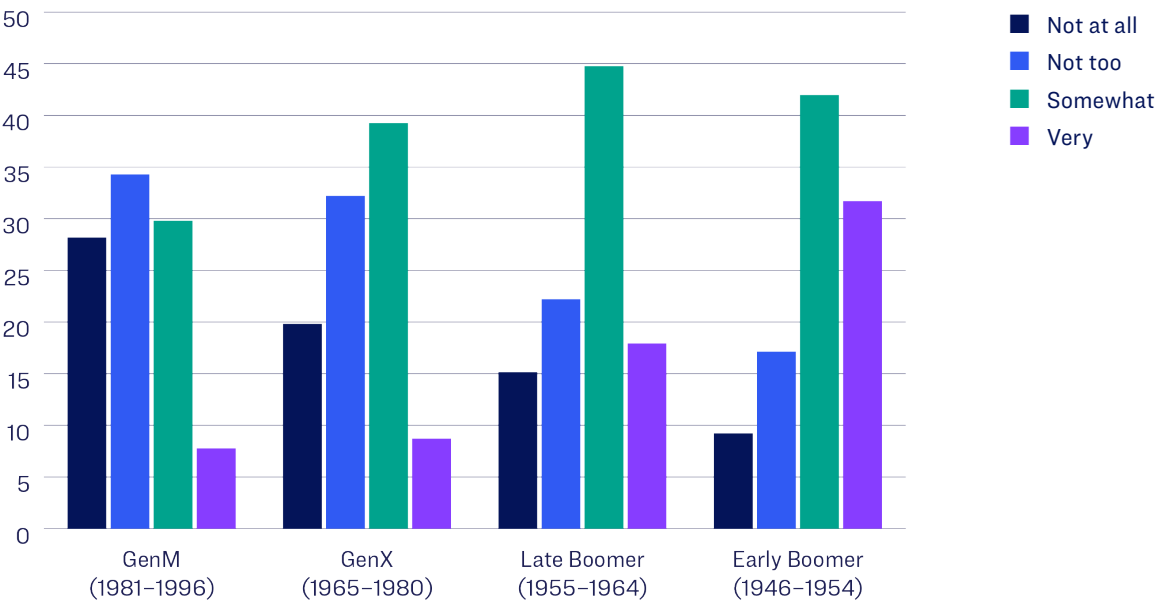


FIGURE 4. SUBJECTIVE RETIREMENT PREPAREDNESS, BY GENERATION



Variables, methodology, and results

Building on earlier analysis, we know that self-perceived health is strongly associated with financial well-being metrics. Our research questions focus on how chronic conditions relate to financial well-being in two ways: indirectly, by shaping how individuals assess their health, which then in turn affects financial well-being, and directly, through other consequences of poor health. To examine these relationships together, we use an analytical approach that allows us to consider multiple pathways at the same time. The direct effects likely reflect factors beyond subjective perceptions such as out-of-pocket medical costs, reduced ability to work, or other financial consequences of chronic illness that affect well-being regardless of how individuals rate their overall health.

To more comprehensively understand the relationship between health and financial well-being, we employ nine indicators of chronic health conditions. In the analysis that follows, the association of chronic condition indicators with financial well-being is analyzed indirectly, through their association with self-perceived good health, and directly with financial well-being. As many chronic conditions occur as comorbidities, there’s potential for covariation. After analyzing the data, we determined that it was justified to combine all the chronic conditions, except for cancer and psychological problems, into a factor index we call *Metabolic Index*.¹⁰

Additional variables related to financial well-being include personality traits, the individual discount rate,¹¹ risk tolerance, numeracy, financial literacy, financial self-efficacy, income, and demographic controls. Like chronic conditions, these indicators may reflect underlying common variation. Based on analysis of the baseline indicators, we determined that it was appropriate to create two indices, one for cognitive factors (numeracy, financial literacy, and education) and one for personality factors (conscientiousness, agreeableness, and neuroticism).¹²

10 The conditions included in the factor index are body mass index (BMI), high blood pressure, stroke, heart disease, diabetes, lung disease, and arthritis. As compared with using the dichotomous obesity variable, using BMI in creating Metabolic Index resulted in lower correlations between health perceptions (-26.5%, as compared with -35.3%) and age (-34%, as compared with -37.6%). For additional background on the construction of factor indexes, see Williams et al. (2010) and Naveed et al. (2021).

11 A subsample of respondents answered a series of questions designed to elicit their discount rate using an established protocol. They chose between receiving \$100 today versus a larger amount of money in 12 months. Based on the point at which they switch their preference from receiving the money at the earlier versus later time, an individual discount rate is calculated, which ranges from 1.5% to 115% in this sample. The UAS 226 survey was administered to individuals age 44-77, and 2,887 individuals completed the discount rate elicitation task and are included in our analysis. This data in the survey is now included in the data for UAS Survey 378, which is a follow-up to the original survey.

12 These indices are also standardized to mean = 0 and standard deviation = 1.

Ultimately, the analysis draws on 29 variables. Table 3 defines the variables, and Table 4 displays descriptive statistics.

TABLE 3. VARIABLE DEFINITIONS

Variable	Definition
FWB Score	Score based on responses to ten survey questions designed by the Consumer Financial Protection Bureau that encompass financial behaviors, self-perceptions, and quantifiable outcomes.
Retirement Prep	Self-assessed degree of retirement preparedness from , 1= Not at all to 4 = Very prepared)
Good Health	Binary variable for self assessed health with 1 = Good, Very Good, or Excellent, 0 = Other)
Fin Efficacy	Self-assessment of confidence in making financial decisions, from 1 (Not at all) to 10 (Very)
Risk Tolerance	Measure of risk tolerance in a hypothetical gamble, from 1 (lowest) to 7 (highest)
Metabolic Index	Standardized values (mean = 0, standard deviation = 1) of factor index for chronic conditions including obesity (BMI), high blood pressure, stroke, heart disease, diabetes, lung disease and arthritic. Higher values indicate worse health.
Hospital Nights in 2 yrs	Number of nights spent in a hospital in the last two years.
Ever Psych	Binary variable =1 if respondent reports ever having had psychological problems.
Ever Cancer	Binary variable =1 if respondent reports ever having had cancer.
Cognitive Index	Standardized values (mean = 0, standard deviation = 1) of factor index based on highest educational attainment and scores on cognition and financial literacy quizzes.
Personality Index	Standardized values (mean = 0, standard deviation = 1) of factor index based on Big 5 personality trait scores for agreeableness, conscientiousness, and neuroticism.
Impatience	Standardized values for elicited discount rate from 1 (lowest) to 32 (highest).
Age	Respondent's age at time of their last completed survey in the wave sequence.
Gender	Binary variable (1 = Male, 2 = Female)
Couple	Binary variable (1 = Married or partnered household, 0 = Single)
Working for Pay	Binary variable (1 = Respondent reports working for pay, 0 = Not)
Race	Categorical variable (1 = White, 2 = Black, 3 = Other)
Hispanic	1 = Respondent reports Hispanic origin, 0 = Not
Income Cat	Nine categories of household income based on percentiles in the sample.

TABLE 4. DESCRIPTIVE STATISTICS

Variable	N	Mean	Std. dev.	Min	Max
FWB Score	5,571	57.213	14.536	14	95
Retirement Prep	5,464	2.476	0.959	1	4
Good Health	5,571	0.819	0.385	0	1
Fin Efficacy	5,565	8.098	1.979	0	10
Risk Tolerance	5,556	2.621	1.756	1	7
Metabolic Index	5,571	0.000	1.000	-1.838	4.072
Body Mass Index (BMI)	5,480	29.57	7.34	7.2	78.1
Ever had high blood pressure	5,560	0.39	0.49	0	1
Ever had stroke	5,555	0.02	0.14	0	1
Ever had heart disease	5,556	0.10	0.29	0	1
Ever had diabetes	5,549	0.19	0.39	0	1
Ever had lung disease	5,557	0.05	0.22	0	1
Ever had arthritis	5,555	0.29	0.45	0	1
Hospital Nights in 2 yrs	5,451	0.640	3.596	0	100
Ever Psych	5,553	0.219	0.413	0	1
Ever Cancer	5,556	0.075	0.264	0	1
Cognitive Index	5,415	0.000	1.000	-2.975	2.118
Cognition Score	5,416	50.68	9.44	33.54	70.45
Financial Literacy Score	5,436	9.05	3.66	0	14
Highest education received	5,570	11.40	2.29	1	16
Personality Index	5,385	0.000	1.000	-4.064	2.327
Agreeableness Score	5,414	35.45	5.58	11	45
Conscientiousness Score	5,407	35.60	5.71	9	45
Neuroticism Score	5,408	21.85	6.55	8	40
Impatience	5,571	0.000	1.000	-1.343	1.531
Age	5,570	51.740	13.512	24	77
Gender (Female = 2)	5,570	1.608	0.488	1	2
Couple	5,571	0.674	0.469	0	1
Working for Pay	5,512	0.634	0.482	0	1
Race (White = 1, Black = 2)	5,571	1.383	0.722	1	3
Hispanic	5,571	0.149	0.356	0	1
Income Category	5,571	5.149	2.477	1	9
< \$13k	531	3,975	4,495	0	13,000
\$13k–\$28.6k	505	20,614	4,618	13,001	28,601
\$28.6k–\$43.5k	530	35,941	4,243	28,680	43,500
\$43.5k–\$60k	546	51,664	4,733	43,551	60,000
\$60k–\$98.3k	1090	78,514	10,991	60,001	98,200
\$98.3k–\$121.6k	559	109,371	6,808	98,324	121,505
\$121.6k–\$155.2k	575	137,403	9,991	121,600	155,176
\$155.2k–221k	575	183,462	18,861	155,210	220,346
>\$221k	588	397,528	314,180	221,000	3,297,413

Note: Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Metabolic Index is constructed using the listed health problems. Cognitive Index is constructed using cognitive functioning, education and financial literacy. Personality Index is constructed using the personality traits listed. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles with 1 being least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident.

We report the results of our analysis in Tables 5 and 6. Table 5 shows the direct, indirect, and total (direct + indirect) relationships between *FWB Score* and the other variables. The values reported in Tables 5 and 6 indicate the direction and relative strength of the relationships estimated in the model.¹³ Problems with metabolic and mental health both have strong direct and indirect negative effects on financial well-being. In contrast, cancer has a significant negative indirect effect through its effect on health perceptions, but an insignificant total effect. Although having had cancer is strongly negatively associated with self-perceived good health, as expected, we find the unexpected result that having had cancer has a positive direct association with *CFPB Score*. While the positive association between cancer and *CFPB Score* is unexpected, previous literature suggests this may be due to the fact that respondents from higher

socioeconomic backgrounds are more likely to survive cancer (Byers et al., 2008).

Respondents with higher cognitive and personality index scores are more likely to report being in good health, and independent of good health, these attributes are strongly positively associated with higher *FWB Scores*.

Although the *FWB Score* is commonly used as a measure of financial well-being, it's not directly tied to retirement well-being. Based on the literature discussed above, we expect that good health throughout the lifespan should contribute to earnings potential and the ability to save for retirement. Table 6 shows the direct, indirect, and total (direct + indirect) relationships between *Retirement Prep* and the other variables.

13 Because the analysis includes both linear and nonlinear components, the results are best interpreted by comparing the sign, statistical significance, and consistency of direct and indirect effects across variables, rather than as precise changes in outcomes.

TABLE 5. DIRECT, INDIRECT, AND TOTAL EFFECTS FROM SIMULTANEOUS GSEM ESTIMATION OF HEALTH AND FINANCIAL WELL-BEING

Covariate	Effect Type	Coefficient	Std. err.	z	P>z
Metabolic Index					
	Indirect	-3.574	0.436	-8.2	0
	Direct	-1.146	0.183	-6.25	0
	Total	-4.720	0.429	-10.99	0
Hospital Nights					
	Indirect	-0.322	0.066	-4.85	0
	Direct	-0.035	0.044	-0.8	0.426
	Total	-0.358	0.078	-4.59	0
Ever Psych					
	Indirect	-2.441	0.477	-5.12	0
	Direct	-2.446	0.401	-6.11	0
	Total	-4.887	0.606	-8.06	0
Ever Cancer					
	Indirect	-2.332	0.635	-3.67	0
	Direct	2.845	0.589	4.83	0
	Total	0.513	0.856	0.6	0.549
Cognitive Index					
	Indirect	0.607	0.221	2.75	0.006
	Direct	1.786	0.193	9.26	0
	Total	2.393	0.292	8.21	0
Personality Index					
	Indirect	1.439	0.244	5.91	0
	Direct	1.562	0.171	9.14	0
	Total	3.002	0.290	10.34	0
Impatience					
	Indirect	-0.034	0.182	-0.19	0.852
	Direct	-1.805	0.165	-10.95	0
	Total	-1.839	0.246	-7.49	0

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

Note: This table reports direct, indirect, and total effects from the generalized structural equation model (GSEM) in Table 6, in which the health and FWB equations are simultaneously estimated. Self-assessed health functions as a mediating pathway and also directly influences FWB. The direct effect reflects the association of each variable with FWB, holding constant the health pathway. The indirect effect operates through the variable's association with self-assessed health, and the total effect is the sum of these components. Statistics are generated using the gsem command in Stata. Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean = 0 and standard deviation = 1. Ever Psych and Ever Cancer are binary variables indicating whether the respondent has ever had a psychological or cancer diagnosis, respectively. Metabolic Index measures health problems, including chronic conditions and obesity. Cognitive Index measures cognitive functioning, including numeracy, education, and financial literacy. Personality Index measures personality traits. Impatience is a standardized ranking based on individual discount rates from low to high.

TABLE 6. DIRECT, INDIRECT, AND TOTAL EFFECTS FROM SIMULTANEOUS GSEM ESTIMATION OF HEALTH AND RETIREMENT PREPAREDNESS

Covariate	Effect Type	Coefficient	Std. err.	z	P>z
Metabolic Index					
	Indirect	-0.603	0.076	-7.92	0
	Direct	-0.132	0.032	-4.12	0
	Total	-0.735	0.075	-9.79	0
Hospital Nights					
	Indirect	-0.054	0.011	-4.79	0
	Direct	-0.003	0.008	-0.42	0.674
	Total	-0.058	0.013	-4.28	0
Ever Psych					
	Indirect	-0.412	0.082	-5.05	0
	Direct	-0.363	0.070	-5.22	0
	Total	-0.776	0.105	-7.39	0
Ever Cancer					
	Indirect	-0.394	0.108	-3.64	0
	Direct	0.242	0.103	2.34	0.019
	Total	-0.152	0.147	-1.03	0.304
Cognitive Index					
	Indirect	0.103	0.037	2.74	0.006
	Direct	0.376	0.034	11.03	0
	Total	0.478	0.051	9.47	0
Personality Index					
	Indirect	0.243	0.042	5.8	0
	Direct	0.134	0.030	4.5	0
	Total	0.377	0.050	7.5	0
Impatience					
	Indirect	-0.006	0.031	-0.19	0.852
	Direct	-0.227	0.029	-7.84	0
	Total	-0.233	0.042	-5.51	0

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

Note: This table reports direct, indirect, and total effects from the generalized structural equation model (GSEM) in Table 9, in which the health and retirement preparedness equations are simultaneously estimated. Self-assessed health functions as a mediating pathway and also directly influences retirement preparedness. The direct effect reflects the association of each variable with retirement preparedness, holding constant the health pathway. The indirect effect operates through the variable's association with self-assessed health, and the total effect is the sum of these components. Statistics are generated using the `gsem` command in Stata. Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean = 0 and standard deviation = 1. Ever Psych and Ever Cancer are binary variables that indicate if the respondent has ever had a psychological or cancer diagnosis respectively. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high.

The results from this analysis are remarkably similar to the estimation results for the FWB Score. Both financial well-being metrics appear to be influenced by the same underlying framework in which chronic conditions inform perceived health, and through this variable, as well as directly, are associated with present financial well-being and, more specifically, with retirement preparedness. Cancer again has a negative indirect pathway operating through health perceptions but a positive direct association with retirement preparedness. These opposite effects offset each other such that the total effect of having had cancer is not significant.

There's a longstanding question in the field regarding the causal direction between health problems and financial outcomes and perceptions. For example, in the previous section, low retirement preparedness can signal a compromised financial position, which can lead to health problems due to access to healthy lifestyle habits and practices, lack of resources for medical care, etc. To investigate the issue of causality, we segment our sample into *FWB Score* quantiles: top 25%, 25th–50th percentile, 50th–75th percentile, and bottom 25%. We next conduct our

analysis for retirement preparation, focusing exclusively on the top quartile. For respondents with the highest scores, it's less likely that financial vulnerability drives health problems, reducing concerns about reverse causality in this subgroup. Table 7 provides some evidence consistent with a causal relationship between health and retirement preparedness. For this group, *Good Health* retains a highly significant positive association with retirement preparedness. Negative health conditions (*Metabolic Index*, *Hospital Nights*, and previous psychological problems) each have significant indirect negative effects on retirement preparedness operating through their effect on health perceptions. Further, for respondents in the top *CFPB Score* quartile, chronic conditions influence retirement preparedness only through *Good Health*, and none of the health variables have a significant direct association with retirement preparedness. This evidence is consistent with interpreting the direction of influence as going from better health to better retirement preparedness, at least within the highest segment, where reverse causality is less likely.

TABLE 7. SIMULTANEOUS GSEM ESTIMATES OF HEALTH (EQUATION 1) AND RETIREMENT PREPAREDNESS (EQUATION 2), BY FWB QUARTILE

	Equation 1 Good Health				Equation 2 Retirement Preparedness			
	FWB Score Quartiles				FWB Score Quartiles			
	Top 25%	50-75%	25-50%	Bottom 25%	Top 25%	50-75%	25-50%	Bottom 25%
N	1444	1224	1281	1325				
Good Health					0.482***	0.354*	0.298	0.756***
Financial Efficacy					-0.00355	0.0491	0.0842*	0.182**
Risk Tolerance					0.0222	-0.0377	-0.00158	0.0584
Metabolic Index	-0.786***	-0.861***	-0.901***	-0.863***	0.0327	0.000697	-0.0677	-0.231***
Hospital Nights in 2 yrs	-0.0750**	-0.0489**	-0.0892*	-0.177***	-0.00755	0.00773	-0.0440	0.00155
Ever Psych	-0.498***	-0.366	-0.631**	-0.631*	-0.235	-0.0931	-0.280	-0.413*
Ever Cancer	-0.437	-1.427***	-0.226	-0.834**	0.0569	-0.183	0.375	0.0990
Cognitive Index	0.0891	0.309**	-0.114	-0.165	0.0845	0.199**	0.364***	0.556***
Personality Index	0.281***	0.352***	0.366**	0.152	0.0353	-0.0515	0.0117	0.204**
Impatience	0.110	-0.0690	0.0861	-0.0555	-0.175**	-0.0972	-0.119	-0.0984
Income Bin								
\$13k–\$28.6k	-0.139	-0.0827	-0.336	-1.496	-0.116	-0.401	-0.729*	-0.774*
\$28.6k–\$43.5k	-0.0873	-0.413	-0.0870	-1.050	0.0515	0.0790	-0.324	-0.175
\$43.5k–\$60k	0.226	-0.435	0.0322	-0.973	0.118	-0.0430	-0.308	-0.414
\$60k–\$98.3k	0.0222	-0.326	0.460	-0.661	0.335	-0.0266	-0.0506	-0.374
\$98.3k–\$121.6k	-0.115	0.0178	0.338	0.221	0.778***	0.133	-0.0745	-0.0594
\$121.6k–\$155.2k	0.662	-0.707	0.499	-0.702	0.678**	0.555*	-0.0332	-0.319
\$155.2k–221k	-0.113	0.0373	0.445	-0.0729	0.413	0.106	0.255	-0.243
>\$221k	0.435	0.148	0.397	-0.193	0.798**	0.831**	0.449	0.182
Age	0.0008	0.0109	0.0072	0.0378**	0.0162**	0.0134*	0.0332***	0.0297***
Gender (Female = 2)0	0.0653	0.117	0.387	0.240	-0.110	-0.209	-0.240*	-0.0287
Couple	0.327*	0.679***	0.589**	0.0445	0.219*	0.206	0.589***	0.0794
Working for Pay	0.669***	0.908***	0.330	1.159***	0.403***	0.0297	-0.109	-0.727***
Race = Black	-0.220	-0.172	-0.558	0.0212	0.370*	0.0472	-0.519*	-0.592*
Race = Other	-0.287	-0.589*	-0.646*	-0.683	0.175	0.152	-0.283	-0.262
Hispanic	-0.526**	-0.0937	0.0268	-0.389	0.0589	-0.149	-0.0151	-0.670**
Constant	0.706	0.885	0.919	0.704				

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$; Standard errors and p-values available upon request

Note: This table reports estimates from a generalized structural equation model (GSEM) in which the health and retirement preparedness equations are simultaneously estimated. The first equation models the probability of self-assessed good health (logit), and the second models retirement preparedness (ordered logit) as a function of self-assessed health and other covariates. Statistics are generated using the gsem command in Stata. Data from Understanding America Study. Index variables are created using factor analysis and are standardized to mean = 0 and standard deviation = 1. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles with 1 being least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident. Income is segmented into 9 categories with 1 being the lowest and 9 the highest. Race is segmented into three categories, with 1 = white, 2 = black and 3 = other. Gender is a categorical variable with 1=Male and 2 = Female.

Conclusions and implications

We find that chronic health conditions are associated with lower financial well-being, measured using both the FWB Score and self-assessed retirement preparedness. These relationships operate through two channels. First, chronic conditions reduce self-perceived good health, which is associated with reduced financial well-being across both measures. Second, chronic conditions have direct, negative effects on each measure, independent of their influence on perceived health. These findings hold after controlling for cognitive ability and personality traits, which are also predictive of health perceptions and financial well-being outcomes. In our analysis, which includes underlying chronic conditions, income and the individual discount rate are not strongly related to self-assessed health but are important factors in both financial well-being measures.

The effect of health on financial well-being is an important issue for both retirement policy and public health policy. Policies that promote health stability, such as paid leave and quality health care, may indirectly reduce financial planning burdens for households. Policies promoting

preventive care are likely to contribute directly to financial well-being. Policies fostering workplace wellness and disability accommodations may improve both income and self-perceptions of health. To the extent that poor health negatively affects employment, income, household debt, and the ability to save for the future, preventive health policies and early treatment of chronic conditions very likely have secondary benefits of reducing future reliance on public assistance and the risk of old-age poverty.

Our results may prove beneficial for financial planning and advising practitioners. Integration of clients' health conditions, beyond insurance and estate planning, can result in more tailored and comprehensive financial well-being guidance. For example, advisors who systematically collect health information may be more adept at anticipating clients' future income volatility or medical expenses. Future research should develop guidelines for integrating health information into financial planning processes.

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Appendix A

Questions used to construct the CFPB Financial Well-being Scale

How well does this statement describe you or your situation?

1. I could handle a major unexpected expense.
2. I am securing my financial future.
3. Because of my money situation, I feel like I will never have the things I want in life.
4. I can enjoy life because of the way I'm managing my money.
5. I am just getting by financially.
6. I am concerned that the money I have or will save won't last.

How often does this statement apply to you?

7. Giving a gift for a wedding, birthday, or other occasion would put a strain on my finances for the month.
8. I have money left over at the end of the month.
9. I am behind with my finances.
10. My finances control my life.

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