

SI Appendix

Predicting mortality from 57 economic, behavioral, social, and psychological factors

Eli Puterman, Jordan Weiss, Ben Hives, Alison Gemmill, Deborah Karasek, Wendy Berry
Mendes, David H. Rehkopf

Correspondence to: eli.puterman@ubc.ca, drehkopf@stanford.edu

SI Appendix Materials and Methods.....	2
Principal Components Analyses from the Health and Retirement Study.....	20
Figures S1 and S2.....	32
Tables S1 to S9.....	35

SI Appendix

Materials and Methods

Predictor Measures

Here, we provide an overview of the variables used in our study. All data from the primary data source of the Health and Retirement Study are publicly available and can be retrieved upon request from <https://hrs.isr.umich.edu/data-products/access-to-public-data>.

Demographics

Age was measured in years by taking the integer portion of the number of months between a respondent's birthdate and the date the interview began divided by 12. We used respondent's age at the time of response in survey wave 2006 or 2008 depending on which year they completed the psychosocial survey.

Male was coded as binary (-1/1), with 1 indicating male and -1 indicating female.

Hispanic was coded as binary (-1/1), with 1 indicating Hispanic and -1 indicating non-Hispanic.

Black was coded as binary (-1/1), with 1 indicating non-Hispanic Black and -1 indicating non-Hispanic White or non-Hispanic Other.

Foreign Born was coded as binary (-1/1), with 1 indicating the respondent was born outside of the United States and -1 indicating the respondent was born in the United States.

Childhood Adversity

Lower Father Occupational Status was coded by categorizing the respondent's father's occupation as (1) Executives and managers, (2) Professional specialty, (3) Sales and administration, (4) Protection services and armed forces, (5) Cleaning, building, food preparation, and personal services, and (6) Production, construction, and operation occupations.

Scores were then standardized to have a mean of 0 and standard deviation of 1. While in more

focused work on occupational class these categories should not be considered as ranked characteristics across a linear relationship, we have included as a single variable in this analysis to avoid duplicate counting with multiple categories in this current comparative analysis.

Paternal and Maternal Education were coded as (0) high school for less than 12 years; (1) high school graduate or GED; (2) some college; (3) college and above. These scores were then reverse coded and standardized to have a mean of 0 and standard deviation of 1.

Father was Unemployed in Childhood was coded as binary (-1/1), with 1 indicating that before the age of 18 the respondent's father ever lost his job and -1 indicating that this did not occur.

Family Received Financial Help in Childhood was coded as binary (-1/1), with 1 indicating that before the age of 18 the respondent's family received help from relatives because of financial difficulties and -1 indicating that this did not occur.

Relocated Homes in Childhood was coded as binary (-1/1), with 1 indicating that before the age of 18 the respondent's family had to relocate due to financial difficulties and -1 indicating that this did not occur.

Child Psychosocial Adversity (2) was a composite measure scored by summing the binary (0/1) responses to whether before the age of 18 the respondent had ever experienced physical abuse; parents' substance or alcohol use caused problems in the home; and had to repeat a year of school. The sum was then standardized to have a mean of 0 and standard deviation of 1.

Adulthood Socioeconomic

Income 2006/2008 was measured in nominal dollars in survey year 2006 and is the sum of all income in a household, including: Respondent's and spouse's wage/salary income, bonuses/overtime pay/commissions/tips, 2nd job or military reserve earnings, professional practice or trade income; household business or farm income, self-employment earnings,

business income, gross rent, dividend and interest income, trust funds or royalties, and other asset income; respondent's and spouse's income from all pensions and annuities; respondent's and spouse's total Social Security income (including that which is and is not received due to disability); respondent's and spouse's income from unemployment and worker's compensation; respondent's and spouse's income from veterans' benefits, welfare, and food stamps; and alimony, other income, and lump sums from insurance, pension, and inheritance at the household level. This value was then log-transformed, reverse coded, and standardized to have a mean of 0 and standard deviation of 1.

Lower Wealth 2006/2008 was measured in nominal dollars in survey year 2006/2008 as the sum of all wealth components (except secondary home) less all debt. This value was then log-transformed, reverse coded, and standardized to have a mean of 0 and standard deviation of 1.

Education was assessed at entry (1992/93) and coded as (0) less than high school; (1) high school graduate or GED; (2) some college; (3) college and above. These scores were then reverse coded and standardized to have a mean of 0 and standard deviation of 1.

Lower Occupational Status was coded by categorizing respondent's occupation as (1) Executives and managers, (2) Professional specialty, (3) Sales and administration, (4) Protection services and armed forces, (5) Cleaning, building, food preparation, and personal services, and (6) Production, construction, and operation occupations. Scores were then standardized to have a mean of 0 and standard deviation of 1.

Recent Financial Difficulties 2006/2008 was measured by asking respondents to how difficult is it for them to meet their/their families monthly bill payments, coding their responses "Not at all difficult", "Not very difficult", "Somewhat difficult", "Very difficult", "Completely

difficult") on a 5-point Likert scale. Scores were standardized to have a mean of 0 and standard deviation of 1.

History of Unemployment was coded as binary (-1/1), with 1 indicating the respondent had reported ever being unemployed over the study period (1995-2006), with a one-item question that asked at each assessment whether the respondent is not working for pay and reports actively looking for a job in the last four weeks and -1 indicating otherwise.

History of Renting was coded as binary (-1/1), with 1 indicating the respondent had reported ever renting their dwelling over the study period (1992-2008), with a one-item question that asked at each assessment, "Do you (and (your (husband/wife/partner))) own your home, rent it, or what?", and -1 indicating otherwise.

History of Food Insecurity was coded as binary (-1/1), with 1 indicating the respondent had reported not having enough money to buy the food they needed any point over the study period (1996-2008) with a one-item question that asked at each assessment, "Since (your previous participation/in the last two years), have you always had enough money to buy the food you need?". -1 indicates the respondent had enough money to buy the food they needed.

History of Food Stamps is coded as binary (-1/1), with 1 indicating the respondent had reported ever receiving food stamps over the study period (1995-2008), with a one-item question that asked at each assessment, "Did you (or other family members who were living here) receive government food stamps at any time [since [Previous Wave Month] [PREV WAVE IW YEAR OF FINANCIAL R]/in the last two years] ?", and -1 indicating otherwise.

History of Medicaid was coded as binary (-1/1), with 1 indicating the respondent had reported ever being on Medicaid over the study period (1992-2006), with a one-item question that asked

at each assessment, “Are you currently covered by (Medicaid/State name for Medicaid)?” and -1 indicating otherwise.

Neighborhood Social Cohesion and Neighborhood Physical Disorder were measured using a scale based on the work of Cagney and colleague.(3) All items scored between one and seven. For physical disorder, the score was created by averaging the responses to items: (i) There is no problem with vandalism and graffiti in this area/Vandalism and graffiti are a big problem in this area; (ii) People feel safe walking alone in this area after dark/People would be afraid to walk alone in this area after dark; (iii) This area is kept very clean/This area is always full of rubbish and litter; and (iv) There are no vacant or deserted houses or storefronts in this area/There are many vacant or deserted houses or storefronts in this area. For social cohesion, the mean of the following items was calculated: (i) I really feel part of this area/I feel that I don’t belong in this area; (ii) Most people in this area can be trusted/Most people in this area can’t be trusted; (iii) Most people in this area are friendly/Most people in this area are unfriendly; and (iv) If you were in trouble, there are lots of people in this area who would help you/If you were in trouble, there is nobody in this area who would help you. Variables in the neighborhood physical disorder subscale were reverse-coded. The mean responses for each subscale were standardized to have a mean of 0 and standard deviation of 1. For each subscale, the final scores were set to missing if three or more items had missing responses. Cronbach’s alphas for neighborhood social cohesion in the 2006 and 2008 data were 0.82 and 0.86, respectively. Cronbach’s alphas for neighborhood physical disorder in the 2006 and 2008 data were 0.64 and 0.83, respectively.

Neighborhood Safety 2006/2008 was measured by asking respondents to report the safety of their neighborhood in the survey year 2006/2008, coding their responses (“Excellent”, “Very

good”, “Good”, “Fair”, “Poor”) on a 5-point Likert scale. Scores were standardized to have a mean of 0 and standard deviation of 1.

Adulthood Health Behaviors

Alcohol Abuse 2006/2008 was coded as binary (-1/1), with 1 indicating the respondent reported being a heavy drinker and -1 indicating the respondent did not report being a heavy drinker.

Current Smoker 2006/2008 was coded as binary (-1/1), with 1 indicating the respondent reported being a current smoker and -1 otherwise.

History of Smoking 2006/2008 was coded as binary (-1/1), with 1 indicating the respondent reported ever smoking and -1 indicating otherwise.

Low/No Moderate Activity was coded as binary (1/-1), with -1 indicating the respondent reported completing moderate activity more than once per week and 1 indicating otherwise.

Low/No Vigorous Activity 2006/2008 was coded as binary (1/-1), with -1 indicating the respondent reported completing vigorous activity more than once per week and 1 indicating otherwise.

Sleep Problems 2006/2008 was coded as binary (-1/1), with 1 indicating the respondent reported restless sleep and -1 otherwise.

Adulthood Social Connections

History of Divorce was coded as binary (-1/1), with 1 indicating the respondent reported being divorced or separated over the course of the study period (1992-2008) and -1 indicating the respondent never reported being divorced no separated.

Never Married was coded as binary (-1/1), with 1 indicating the respondent never reported being married over the course of the study period (1992-2008) and -1 indicating the respondent had ever been married.

Positive and Negative Social Interactions were measured for relationships with **children, family, and friends**. The HRS used a 3-item subscale for support and a 4-item subscale for strain, each rated on a 4-point Likert-type scale (1 = A lot, 2 = Some, 3 = A little, 4 = Not at all). For each of domain, support was the mean scores for the items: (i) How much do they really understand the way you feel about things; (ii) How much can you rely on them if you have a serious problem; and (iii) How much can you open up to them if you need to talk about your worries. For each of domain, strain was the mean scores for the items: (i) How often do they make too many demands on you; (ii) How much do they criticize you; (iii) How much do they let you down when you are counting on them; and (iv) How much do they get on your nerves. All items were reverse-coded and the resultant mean scores for each domain and measure pairing were standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were not at least two valid responses for each measure. See Table S9 for all Cronbach's alpha values.

Adulthood Psychological

Personality traits (**Agreeableness, Extroversion, Neuroticism, Conscientiousness, and Openness to Experience**) were measured by Lachman and Weaver's The Midlife Development Inventory (MIDI) Personality Scales (4). Respondents rated the level to which a set of items describes themselves using a four-point Likert-type scale (1 = A lot, 2 = Some, 3 = A little, 4 = Not at all). Within each sub-dimension, a mean score was produced. The agreeableness sub-dimension contained the items (i) Helpful, (ii) Warm, (iii) Caring, (iv) Soft hearted, and (v) Sympathetic. The extroversion sub-dimension contained the items (i) Outgoing, (ii) Friendly, (iii) Lively, (iv) Active, and (v) Talkative. The neuroticism sub-dimension contained the items (i) Moody, (ii) Worrying, (iii) Nervous, and (iv) Calm. The conscientiousness sub-dimension

contained the items (i) Organized, (ii) Responsible, (iii) Hardworking, (iv) Careless, and (v) Thorough. The openness to experience sub-dimension contained the items (i) Creative, (ii) Imaginative, (iii) Intelligent, (iv) Curious, (v) Broad-minded, (vi) Sophisticated, and (vii) Adventurous. All items except for Careless and Calm were reverse-coded. Each mean score was then standardized to have a mean of 0 and standard deviation of 1. In 2006, the Cronbach's alpha for agreeableness, extroversion, neuroticism, conscientiousness, and openness to experience are 0.78, 0.75, 0.70, 0.67, and 0.79, respectively. In 2008, the Cronbach's alphas for agreeableness, extroversion, neuroticism, conscientiousness, and openness to experience are 0.78, 0.74, 0.72, 0.66, and 0.79, respectively.

Anger-out and **Anger-in** were measured by the Spielberger's State-Trait Anger Expression Inventory (5). This scale includes a 4-item subscale for trait anger and a 7-item subscale for state anger, both measured on a 4-point Likert scale (1 = Almost never, 2 = Sometimes, 3 = Often, 4 = Almost always). Anger-out was scored by taking the mean across seven items: (i) When I am feeling angry or mad, I argue with others; (ii) When I am feeling angry or mad, I strike out at whatever infuriates me; (iii) When I am feeling angry or mad, I say nasty things; (iv) When I am feeling angry or mad, I lose my temper; (v) I am quick tempered; (vi) I have a fiery temper; and (vii) I fly off the handle. Anger-in was scored by taking the mean across four items: (i) When I am feeling angry or mad, I keep things in; (ii) When I am feeling angry or mad, I withdraw from people; (iii) When I am feeling angry or mad, I am irritated more than people are aware; and (iv) When I am feeling angry or mad, I am angrier than I am willing to admit. These scores were then standardized to have a mean of 0 and standard deviation of 1. Anger-out scores were set to missing if there were four or more items with missing values. Anger-in scores were set to missing if there were three or more items with missing values. Cronbach's alpha for state anger

in 2006 and 2008 data is 0.88 and 0.87, respectively. Cronbach's alphas for trait anger in 2006 and 2008 data are 0.78 and 0.78, respectively.

Cynical Hostility was assessed using a subscale of the Cook-Medley Hostility Inventory (6) which contained a 5-item scale rated on a 6-point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Cynical hostility is scored by taking the mean across five items: (i) Most people dislike putting themselves out to help other people; (ii) Most people will use somewhat unfair means to gain profit or an advantage rather than lose it; (iii) No one cares much what happens to you; (iv) I think most people would lie in order to get ahead; and (v) I commonly wonder what hidden reasons another person may have for doing something nice for me. Note: in the 2006 version, item (i) was worded "Most people inwardly dislike putting themselves out to help other people". These scores were then standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were four or more items with missing values. Cronbach's alphas for the 2006 and 2008 data are 0.76 and 0.79, respectively.

Hopelessness was measured by two items taken from two Hopelessness scales (7, 8). This composite scale is measured using a 6-point ordered response scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Hopelessness is scored by taking the mean across each item: (i) I feel it is impossible for me to reach the goals that I would like to strive for; (ii) The future seems hopeless to me and I can't believe that things are changing for the better; (iii) I don't expect to get what I really want; and (iv) There's no use in really trying to get something I want because I probably won't get it. These scores were then standardized to have a mean of 0 and standard deviation of 1.

Hopelessness scores were set to missing if there were three or more items with missing values.

Cronbach's alphas for hopelessness in 2006 and 2008 data are 0.86 and 0.84, respectively.

Loneliness was assessed using a subscale of the Loneliness Scale (9) which contained a 3-item scale rated on a 3-point ordered response scale (1 = Often, 2 = Some of the time, 3 = Hardly ever or never). Loneliness was scored by taking the mean response across three items: (i) You lack companionship; (ii) Left out; and (iii) Isolated from others. All items were reverse-coded. These overall scores were then standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were two or more items with missing values. Cronbach's alphas for loneliness in 2006 and 2008 data are 0.82 and 0.88, respectively.

Life Satisfaction was measured in the HRS using Diener's measure of life satisfaction (10), a well-established measure of self-evaluated life quality that has been used extensively in international comparative studies. Diener's measure is a 5-item scale rated on a 7-point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree, 6 = Somewhat agree, 7 = Strongly agree). Note, in 2006, a 6-point Likert scale was used (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Life satisfaction is scored by taking the mean across five items: (i) In most ways my life is close to ideal; (ii) The conditions of my life are excellent; (iii) I am satisfied with my life; (iv) So far, I have gotten the important things I want in life (v) If I could live my life again, I would change almost nothing. These scores were then standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were three or more items with missing values. Cronbach's alphas for the 2006 and 2008 data are 0.89 and 0.88, respectively.

Optimism and Pessimism were measured by Scheier and colleagues' Life Orientation Test – Revised (11), which contained two 3-item subscales, each rated on a 6-point Likert-type scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Optimism was scored as the mean response score to the items: (i) I'm always optimistic about my future; (ii) In uncertain times, I usually expect the best; and (iii) Overall, I expect more good things to happen to me than bad. Pessimism was scored by taking the mean response to three items: (i) If something can go wrong for me it will; (ii) I hardly ever expect things to go my way; and (iii) I rarely count on good things happening to me. Each mean score was then standardized to have a mean of 0 and standard deviation of 1. If either scale was missing more than one response value, the score was set to missing. Cronbach's alpha for optimism in the 2006 and 2008 data is 0.80 and 0.79, respectively. Cronbach's alphas for pessimism in the 2006 and 2008 data are 0.77 and 0.76, respectively.

Positive Affect and Negative Affect were measured differently between 2006 and 2008. In 2006, they were measured using a scale taken from MIDUS, based on the work of Mroczek and Kolarz (12), which contained two 6-item subscales, each rated on a 5-point Likert-type scale (1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time). The positive affect scale was created by averaging responses to the following items: (i) cheerful; (ii) in good spirits; (iii) extremely happy; (iv) calm and peaceful; (v) satisfied; and (vi) full of life. The negative affect scale was created by reverse-coding, standardizing, and averaging responses to the following items: (i) so depressed that nothing could cheer you up; (ii) hopeless; (iii) restless or fidgety; (iv) that everything was an effort; (v) worthless; and (vi) nervous. All items were reverse-coded. These scores were then standardized to have a mean of 0 and standard

deviation of 1. If responses to more than 3 items were missing, then the score was set as missing. Cronbach's alphas for positive affect and negative affect in 2006 are 0.92 and 0.88, respectively. Starting in 2008, affect was measured by a modified version of Watson and Clarks' Positive and Negative Affect Schedule – Expanded Form (PANAS-X; (13)). This scale contained 25 items (13 positive valance and 12 negative valance) and measured the degree to which an individual an individual's feelings corresponded to each item using a 5-point Likert scale (1 = Very much, 2 = Quite a bit, 3 = Moderately, 4 = A little, 5 = Not at all). A positive affect score was calculated by averaging responses to the following: (i) Determined; (ii) Enthusiastic; (iii) Active; (iv) Proud; (v) Interested; (vi) Happy; (vii) Attentive; (viii) Content*; (ix) Inspired; (x) Hopeful*; (xi) Alert; (xii) Calm; and (xiii) Excited. Similarly, a negative affect score was calculated by reverse-coding, standardizing, and averaging responses to the following: (i) Afraid; (ii) Upset; (iii) Guilty; (iv) Scared; (v) Frustrated*; (vi) Bored*; (vii) Hostile; (viii) Jittery; (ix) Ashamed; (x) Nervous; (xi) Sad; and (xii) Distressed. Asterisks (*) denote items that were not present in the PANAS-X, but rather were added from the work of other researchers in this area. All items were reverse-coded. These scores were then standardized to have a mean of 0 and standard deviation of 1. Values were set to missing if there were seven or more missing values. Cronbach's alphas for positive affect and negative affect in 2008 are 0.92 and 0.89, respectively.

Purpose in Life was assessed using a subscale of the Ryff Measures of Psychological Well-being (14) which contained a 7-item scale rated on a 6-point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Purpose in life is scored by taking the mean across seven items: (i) I enjoy making plans for the future and working to make them a reality; (ii) My daily activities often seem trivial and unimportant to me; (iii) I am an active person in carrying out the plans I set for

myself; (iv) I don't have a good sense of what it is I'm trying to accomplish in life; (v) I sometimes feel as if I've done all there is to do in life; (vi) I live life one day at a time and don't really think about the future; (vii) I have a sense of direction and purpose in my life. Items (ii), (iv), (v), and (vi) were reverse coded. These scores were then standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were more than three items with missing values. Cronbach's alphas for the 2006 and 2008 data are 0.74 and 0.76 respectively.

Religiosity was measured with Fetzer Institute's (15) 4-item scale rated on a 6 point Likert scale (1=Strongly Disagree; 2 = Somewhat Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Somewhat Agree; 6 = Strongly Agree). Religiosity is scored by taking the mean across four items: (i) I believe in a God who watches over me; (ii) The events in my life unfold according to a divine or greater plan; (iii) I try hard to carry my religious beliefs over into all my other dealings in life; (iv) I find strength and comfort in my religion. These scores were then standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were two or more items with missing values. Cronbach's alpha for the 2006 and 2008 data is 0.92.

Perceived Constraints and Perceived Mastery were measured using select items from the Sense of Control scale used in MIDUS. This scale include a 5-item subscale for perceived constraints and a 5-item subscale for perceived mastery, both measured on a 6-point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Perceived constraints was scored by taking the mean across each item: (i) I often feel helpless in dealing with the problems of life; (ii) Other people determine most of what I can and cannot do; (iii) What happens in my life is often beyond my control; (iv) I have little control over the things that happen to me; and (v) There is really no way

I can solve the problems I have. Perceived mastery was scored by taking the mean across each item: (i) I can do just about anything I really set my mind to; (ii) When I really want to do something, I usually find a way to succeed at it; (iii) Whether or not I am able to get what I want is in my own hands; (iv) What happens to me in the future mostly depends on me; and (v) I can do the things that I want to do. These scores were then standardized to have a mean of 0 and standard deviation of 1. For each subscale, the score was set to missing if four or more items had missing values. Cronbach's alphas for perceived constraints in 2006 and 2008 data are 0.86 and 0.87, respectively. Cronbach's alphas for perceived mastery in 2006 and 2008 data are 0.89 and 0.89, respectively.

Trait Anxiety was assessed using a subscale of the Beck Anxiety Inventory (16) (1988), this subscale consisted of five items rated on a 4-point Likert scale (1 = Never, 2 = Hardly ever, 3 = Some of the time, 4 = Most of the time). Trait anxiety was scored by taking the mean across five items: (i) I had fear of the worst happening; (ii) I was nervous; (iii) I felt my hands trembling; (iv) I had a fear of dying; and (v) I felt faint. These scores were then standardized to have a mean of 0 and standard deviation of 1. Values were set as missing if there were three or more missing responses. Cronbach's alphas for state anxiety in the 2006 and 2008 data are 0.81 and 0.82, respectively.

Adulthood Adverse Experiences

Adult Psychosocial Adversity (2) is a composite measure scored by summing the binary (0/1) responses to whether the respondent had experienced, at any age after 17, (i) the death of a child, (ii) a natural disaster, (iii) fired a weapon in combat, (iv) a partner addicted to drugs or alcohol, (v) being victim of a physical attack, and (vi) a spouse or child with a serious illness. The sum was then standardized to have a mean of 0 and standard deviation of 1.

Daily Discrimination was assessed using a short-form version of the Everyday Discrimination Scale by Williams and colleagues (17), which contained up to six items rated on a 6-point Likert-type scale (1 = Almost every day, 2 = At least once a week, 3 = A few times a month, 4 = A few times a year, 5 = Less than once a year, 6 = Never). In 2006, this scale was composed of the items: (i) You are treated with less courtesy or respect than other people; (ii) You receive poorer service than other people at restaurants or stores; (iii) People act as if they think you are not smart; (iv) People act as if they are afraid of you; and (v) You are threatened or harassed. In 2008, a sixth item was included to give more adult-relevant context: (vi) You receive poorer service or treatment than other people from doctors or hospitals. All items were reverse-coded and a composite daily discrimination score was produced by taking the mean of all items. This score was then standardized to have a mean of 0 and standard deviation of 1. Scores were set to missing if there were four or more items with missing values. Cronbach's alphas for the 2006 and 2008 data were 0.80 and 0.82 respectively.

Major Discrimination was measured using the abbreviated version of the Major Experiences of Discrimination created by Williams and colleagues (17). This scale measured the number of major discriminatory events to which individual had been subjected. In 2006, individuals were asked if the following had happened: (i) At any time in your life, have you ever been unfairly dismissed from a job; (ii) For unfair reasons, have you ever not been hired for a job, (iii) Have you ever been unfairly denied a promotion; (iv) Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment; (v) Have you ever been unfairly denied a bank loan; and (vi) Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police. In 2008, an additional item was added to measure: (vii) Have you ever been unfairly denied health care or

treatment. Affirmative responses were coded as 1 while negative responses were coded as -1, and a sum score was created to represent the total number of major experiences of discrimination. This score was then standardized to have a mean of 0 and standard deviation of 1.

References

1. D. Weir, “Validating mortality ascertainment in the Health and Retirement Study” (2016), (available at https://hrs.isr.umich.edu/sites/default/files/biblio/Weir_mortality_ascertainment.pdf).
2. E. Puterman *et al.*, Lifespan adversity and later adulthood telomere length in the nationally representative US Health and Retirement Study. *Proc. Natl. Acad. Sci. U. S. A.* **113**, E6335–E6342 (2016).
3. K. A. Cagney *et al.*, Neighborhood-Level Cohesion and Disorder: Measurement and Validation in Two Older Adult Urban Populations. *Journals Gerontol. Ser. B Psychol. Sci. Soc. Sci.* **64B**, 415–424 (2009).
4. M. E. Lachman, S. L. Weaver, “The Midlife Development Inventory (MIDI) personality scales: Scale construction and scoring” (1997), (available at <https://www.brandeis.edu/psychology/lachman/pdfs/midi-personality-scales.pdf>).
5. C. D. Spielberger, in *The Corsini Encyclopedia of Psychology* (John Wiley & Sons, Inc., Hoboken, NJ, USA, 2010; <http://doi.wiley.com/10.1002/9780470479216.corpsy0942>), pp. 1–1.
6. W. W. Cook, D. M. Medley, Proposed hostility and Pharisaic-virtue scales for the MMPI. *J. Appl. Psychol.* **38**, 414–418 (1954).
7. S. A. Everson, G. A. Kaplan, D. E. Goldberg, R. Salonen, J. T. Salonen, Hopelessness and 4-Year Progression of Carotid Atherosclerosis. *Arterioscler. Thromb. Vasc. Biol.* **17**, 1490–1495 (1997).
8. A. T. Beck, A. Weissman, D. Lester, L. Trexler, The measurement of pessimism: the hopelessness scale. *J. Consult. Clin. Psychol.* **42**, 861–5 (1974).

9. M. E. Hughes, L. J. Waite, L. C. Hawkley, J. T. Cacioppo, A Short Scale for Measuring Loneliness in Large Surveys. *Res. Aging.* **26**, 655–672 (2004).
10. E. Diener, R. A. Emmons, R. J. Larsen, S. Griffin, The Satisfaction With Life Scale. *J. Pers. Assess.* **49**, 71–75 (1985).
11. M. E. Scheier, C. S. Carver, Dispositional Optimism and Physical Well-Being: The Influence of Generalized Outcome Expectancies on Health. *J. Pers.* **55**, 169–210 (1987).
12. D. K. Mroczek, C. M. Kolarz, The effect of age on positive and negative affect: a developmental perspective on happiness. *J. Pers. Soc. Psychol.* **75**, 1333–49 (1998).
13. D. Watson, L. Anna Clark, The PANAS-X: Manual for the Positive and Negative Affect Schedule - Expanded Form (1999), doi:10.17077/48vt-m4t2.
14. C. D. Ryff, C. L. Keyes, The structure of psychological well-being revisited. *J. Pers. Soc. Psychol.* **69**, 719–27 (1995).
15. Fetzer Institute, in *Multidimensional measurement of religiousness/spirituality for use in health research: A report of the Fetzer Institute/National Institute on Aging Working Group*, N. W. Group, Ed. (John E. Fetzer Institute., Kalamazoo, MI, 2003), pp. 85–88.
16. A. T. Beck, N. Epstein, G. Brown, R. A. Steer, An inventory for measuring clinical anxiety: psychometric properties. *J. Consult. Clin. Psychol.* **56**, 893–7 (1988).
17. D. R. Williams, Yan Yu, J. S. Jackson, N. B. Anderson, Racial Differences in Physical and Mental Health. *J. Health Psychol.* **2**, 335–351 (1997).

Principal Components Analysis from the Health and Retirement Study

Principal component analyses demonstrated the following loadings within each domain. We report variance per dimension and cumulative variance.

1. Childhood Adversity

1.1 Eigenvalues for each Dimension

	Eigenvalue	Variance (%)	Cumulative Variance (%)
Dimension 1	2.195	31.355	31.355
Dimension 2	1.602	22.888	54.243
Dimension 3	0.916	13.085	67.328
Dimension 4	0.684	9.771	77.099
Dimension 5	0.663	9.470	86.569
Dimension 6	0.627	8.956	95.525
Dimension 7	0.313	4.475	100.000

1.2 Contribution to each Dimension

	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
Lower Father					
Occupational	21.029	4.186	0.129	4.296	17.168
Status					

Lower					
Education	29.356	8.849	0.000	1.106	0.337
Father					
Lower					
Education	26.045	9.695	0.061	3.307	2.620
Mother					
Family					
Received					
Financial Help	3.819	28.298	3.910	20.480	39.602
in Childhood					
Father was					
Unemployed in	9.035	19.317	2.734	61.585	0.133
Childhood					
Relocated					
Homes in	8.426	21.529	3.946	9.113	40.062
Childhood					
Childhood					
Psychosocial	2.290	8.126	89.220	0.113	0.078
Adversities					

2. Adulthood Socioeconomic

2.1 Eigenvalues for each Dimension

	eigenvalue	Variance (%)	Cumulative Variance (%)
Dimension 1	3.297	25.360	25.360
Dimension 2	1.456	11.203	36.564
Dimension 3	1.290	9.920	46.484
Dimension 4	1.070	8.230	54.714
Dimension 5	0.888	6.835	61.548
Dimension 6	0.833	6.409	67.958
Dimension 7	0.797	6.130	74.088
Dimension 8	0.689	5.298	79.386
Dimension 9	0.677	5.211	84.597
Dimension 10	0.643	4.943	89.540
Dimension 11	0.512	3.935	93.475
Dimension 12	0.488	3.754	97.228
Dimension 13	0.360	2.772	100.000

2.2 Contribution to each Dimension

	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
Lower Income	2.482	0.273	28.081	15.359	0.714
Lower Wealth	4.595	0.089	24.176	16.184	0.391

Lower Education	10.507	1.355	10.008	19.079	0.627
Lower Occupational Status	8.121	0.482	10.927	25.653	2.725
Recent Financial Difficulties	8.353	0.215	0.299	6.279	1.363
History of Unemployment	3.217	2.747	3.362	7.027	74.543
History of Renting	5.580	3.139	3.231	7.731	13.357
History of Food Insecurity	7.651	5.768	6.799	0.181	0.747
History of Food Stamps	11.378	8.248	5.606	0.012	3.004
History of Medicaid	11.244	8.155	3.613	0.547	2.422
Lower Neighborhood Cohesion	7.629	29.704	3.122	0.952	0.001
Neighborhood Disorder	9.539	30.545	0.769	0.013	0.010
Lower Neighborhood Safety	9.705	9.282	0.009	0.984	0.096

3. Adulthood Health Behaviour

3.1 Eigenvalues for each Dimension

	Variance		Cumulative
	Eigenvalue	(%)	Variance (%)
Dimension 1	1.483	24.715	24.715
Dimension 2	1.317	21.943	46.658
Dimension 3	0.946	15.760	62.418

Dimension 4	0.909	15.155	77.573
Dimension 5	0.685	11.421	88.994
Dimension 6	0.660	11.006	100.000

3.2 Contribution to each Dimension

	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
Alcohol Abuse	6.086	13.815	0.237	79.630	0.019
Current Smoker	29.886	11.209	0.563	6.615	8.788
History of Smoking	23.081	18.178	0.118	11.335	7.826
Low/No Moderate Activity	17.945	24.880	4.743	1.563	45.539
Low/No Vigorous Activity	16.500	26.627	6.247	0.786	37.788
Sleep Problems	6.502	5.291	88.092	0.070	0.039

4. Adulthood Social Connection

4.1 Eigenvalues for each Dimension

	eigenvalue	Variance (%)	Cumulative Variance (%)
Dimension 1	2.435	30.440	30.440
Dimension 2	1.365	17.057	47.497
Dimension 3	1.109	13.863	61.360
Dimension 4	0.867	10.839	72.199
Dimension 5	0.741	9.265	81.464
Dimension 6	0.610	7.620	89.084
Dimension 7	0.485	6.066	95.150
Dimension 8	0.388	4.850	100.000

4.2 Contribution to each Dimension

	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5
History of Divorce	2.277	1.581	49.552	29.317	12.814
Never Married	0.146	9.666	35.967	51.475	2.101
Lower Positive Interactions with Children	18.533	11.568	0.005	6.020	6.507
Negative Interactions with Children	24.451	5.597	0.108	0.114	3.150

Lower Positive Interactions with Family	11.583	21.553	2.931	0.388	14.141
Negative Interactions with Family	21.655	10.737	0.220	2.910	0.777
Lower Positive Interactions with Friends	4.282	26.406	11.211	4.237	43.462
Negative Interactions with Friends	17.074	12.892	0.006	5.539	17.048

5. Adulthood Psychological

5.1 Eigenvalues for each Dimension

	Variance eigenvalue (%)	Cumulative Variance (%)
Dimension 1	6.250	31.249
Dimension 2	2.407	43.284
Dimension 3	1.242	49.494
Dimension 4	1.045	54.720
Dimension 5	1.013	59.785
Dimension 6	0.933	64.450
Dimension 7	0.821	68.555
Dimension 8	0.709	72.100
Dimension 9	0.669	75.447
Dimension 10	0.642	78.657
Dimension 11	0.579	81.552
Dimension 12	0.557	84.339
Dimension 13	0.475	86.716
Dimension 14	0.445	88.942
Dimension 15	0.440	91.143
Dimension 16	0.422	93.255
Dimension 17	0.388	95.194
Dimension 18	0.364	97.015
Dimension 19	0.316	98.593

Dimension 20 0.281 1.407 100.000

5.2 Contribution to each Dimension

	Dimension	Dimension	Dimension	Dimension	Dimension
	1	2	3	4	5
Lower Agreeableness	0.291	23.706	0.902	5.436	0.057
Lower Extroversion	5.429	8.232	1.396	1.817	1.225
Lower Neuroticism	2.711	11.823	0.936	6.503	5.968
Lower Conscientiousness	3.998	15.532	0.820	3.811	1.935
Lower Openness to Experiences	4.678	13.749	1.404	0.234	0.042
Anger Out	1.865	2.288	0.541	2.989	26.467
Anger In	1.778	1.672	3.473	1.056	29.504
Cynical Hostility	3.563	2.664	19.966	12.140	1.098
Hopelessness	8.797	1.529	6.836	2.184	4.524
Loneliness	6.129	3.200	0.621	0.288	0.698
Lower Life Satisfaction	8.192	0.845	2.022	0.000	0.301
Lower Optimism	3.935	0.036	12.284	0.564	9.148
Pessimism	6.770	2.196	14.374	6.347	1.875
Lower Positive Affectivity	9.138	0.025	2.401	0.000	0.030
Negative Affectivity	4.863	5.320	1.453	8.863	0.701
Lower Purpose in Life	8.660	0.447	0.053	0.000	1.162
Lower Religiosity	0.119	0.402	21.064	36.819	0.053
Perceptions of Obstacles	8.247	1.337	1.916	0.467	2.310

Lower Sense of Mastery	5.094	0.264	7.036	1.974	11.282
Trait Anxiety	5.743	4.731	0.501	8.508	1.621

6. Adulthood Adverse Experience

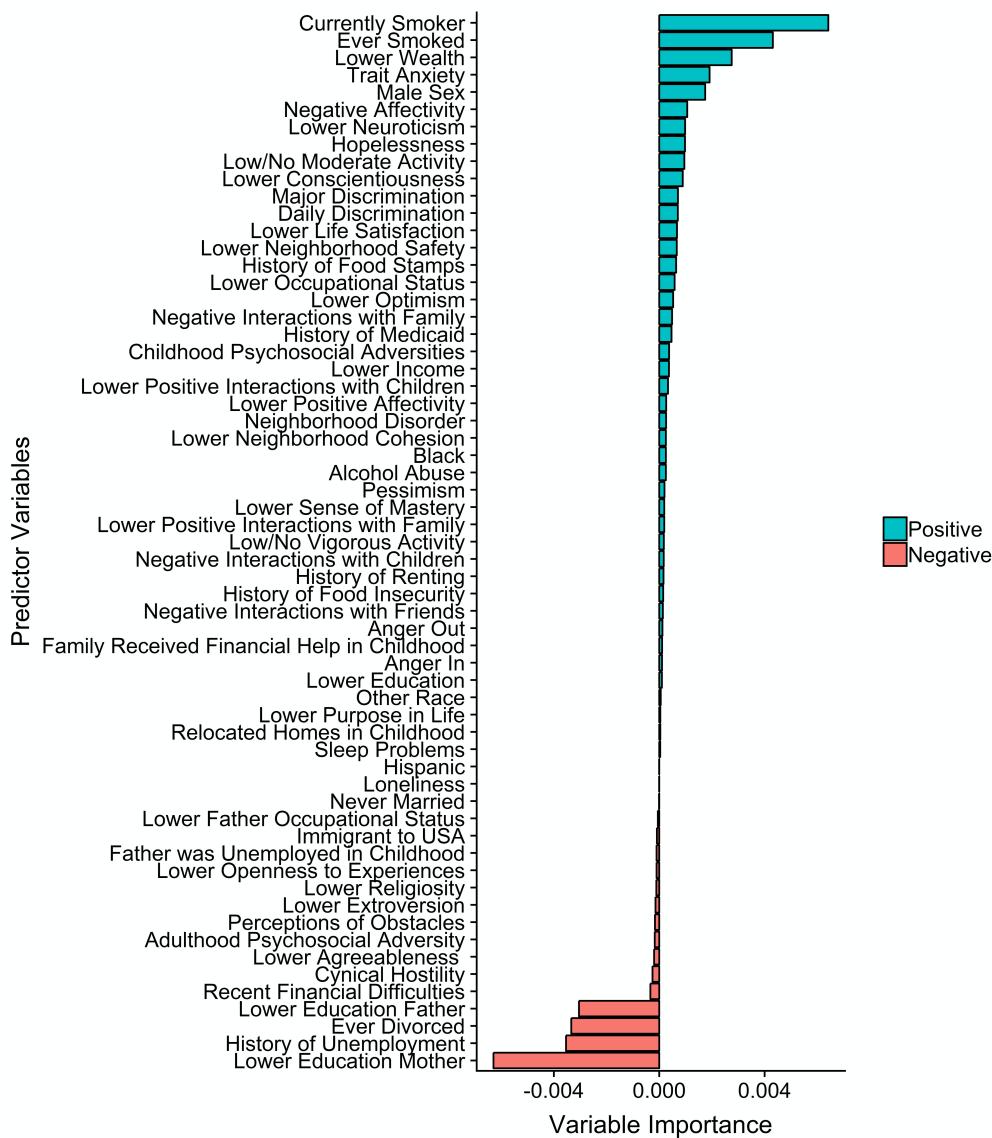
6.1 Eigenvalues for each Dimension

	eigenvalue	Variance (%)	Cumulative Variance (%)
Dimension 1	1.373	45.766	45.766
Dimension 2	0.943	31.447	77.213
Dimension 3	0.684	22.787	100.000

6.2 Contribution to each Dimension

	Dimension 1	Dimension 2	Dimension 3
Adulthood Psychosocial Adversity	14.881	82.297	2.822
Daily Discrimination	40.082	15.425	44.493
Major Discrimination	45.037	2.279	52.685

Figure S1. Random forest survival analysis to predict survival over the follow-up period, Health and Retirement Study.



The figure shows positive variable importance in blue, which indicates this factor increases the predictive nature of the model. Negative variable importance is shown in red, indicating these variables decrease the accuracy of prediction. This is likely due to random error. Note that the variable importance scale is quite low, meaning that based on the random forest model with

baseline hazard of age, these variables are not highly predictive of survival relative to age in this model.

Figure S2. Correlations among predictors, Health and Retirement Study

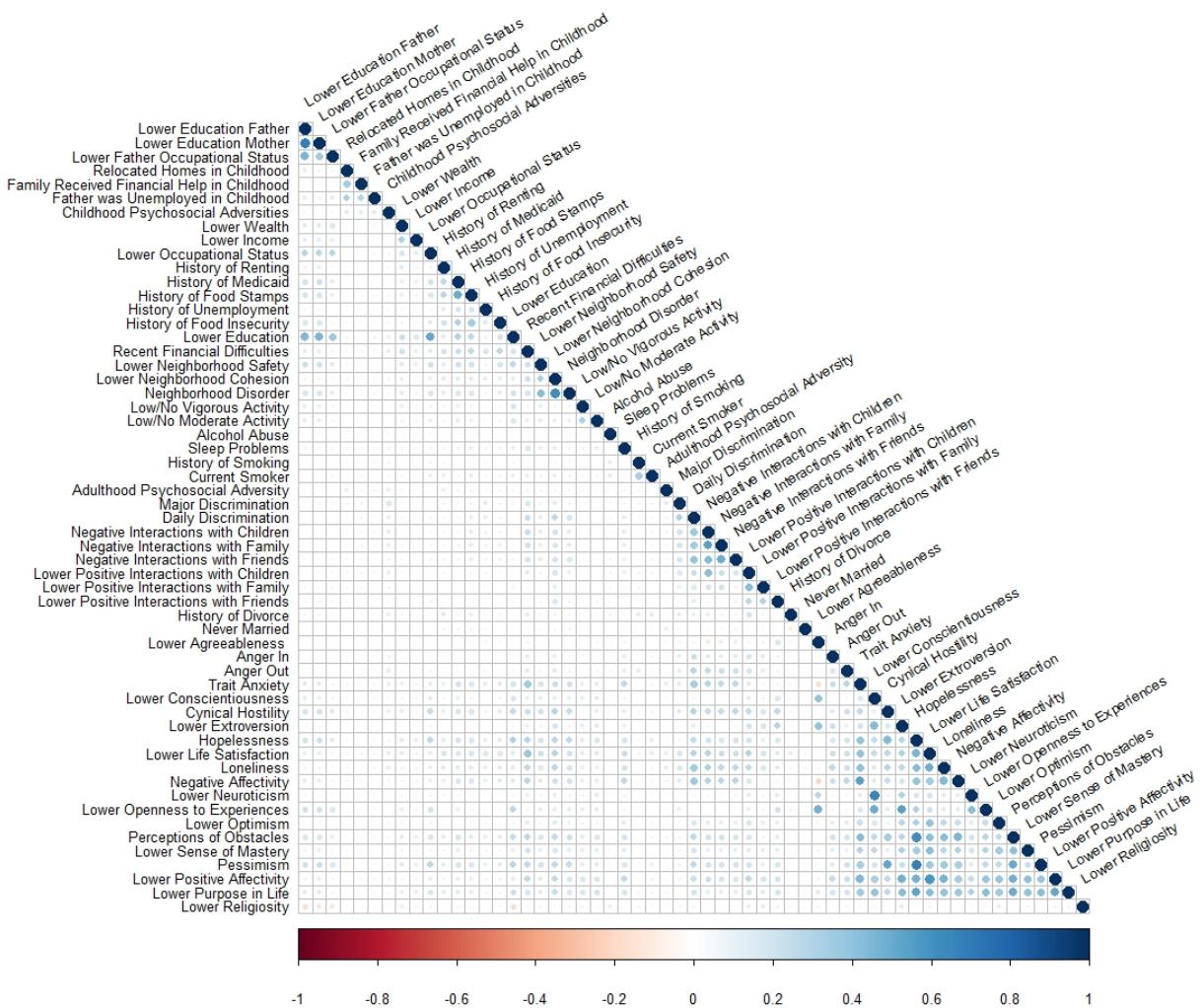


Table S1. List of predictor variables in the current study, including descriptive statistics, Health and Retirement Study

Variable		Statistic	Missing (%)
Demographics			
	Age, years (SD)	69.35 (9.67)	0.00%
	Men, N (%)	5630 (41.36%)	0.00%
	Race		0.01%
	Hispanic White, N (%)	768 (5.64%)	
	White, N (%)	10563 (77.61%)	
	Hispanic Black, N (%)	26 (0.19%)	
	Hispanic Other, N (%)	268 (1.97%)	
	Non-Hispanic Black, N (%)	1715 (12.6%)	
	Other, N (%)	270 (1.98%)	
	Foreign Born, N born outside United States (%)	1221 (8.97%)	0.09%
Childhood Adversity			
	Lower Father Occupational Status, units (SD)	4.91 (1.74)	30.48%
	Lower Education Father, years (SD)	9.28 (3.77)	14.15%
	Lower Education Mother, years (SD)	9.62 (3.46)	9.32%
	Family Received Financial Help in Childhood, N received help (%)	1799 (13.22%)	1.52%

	Father was Unemployed in Childhood, N unemployed (%)	2708 (19.90%)	9.83%
	Relocated Homes in Childhood, N relocated (%)	2479 (18.21%)	0.52%
	Childhood Psychosocial Adversities, units (SD)	0.35 (0.61)	2.45%
Adulthood Socioeconomic			
	Lower Income, dollars (SD)	63816.99 (166412.44)	0.00%
	Lower Wealth, dollars (SD)	508557.77 (1239010.97)	0.00%
	Lower Education, units (SD)	3.21 (1.36)	0.01%
	Lower Occupational Status, units (SD)	3.53 (1.82)	16.81%
	Recent Financial Difficulties, units (SD)	1.96 (1.00)	2.78%
	History of Unemployment, N unemployed (%)	1143 (8.40%)	29.20%
	History of Renting, N rented (%)	2976 (21.86%)	0.00%
	History of Food Insecurity, N food insecure (%)	2629 (19.32%)	0.03%
	History of Food Stamps, N on food stamps (%)	1373 (10.09%)	0.03%
	History of Medicaid, N using medicaid (%)	1619 (11.89%)	0.00%
	Lower Neighborhood Cohesion, units (SD)	5.53 (1.36)	4.76%
	Neighborhood Disorder, units (SD)	2.47 (1.36)	4.92%
	Lower Neighborhood Safety, units (SD)	2.04 (1.02)	0.76%
Adulthood Health Behaviors			

	Alcohol Abuse, N heavy drinker (%)	929 (6.83%)	0.11%
	Current Smoker, N smokers (%)	1696 (12.46%)	0.68%
	History of Smoking, N smokers (%)	7688 (56.48%)	0.68%
	Low/No Moderate Activity, N with < 2 bouts per week (%)	6239 (45.84%)	0.03%
	Low/No Vigorous Activity, N with < 2 bouts per week (%)	10480 (77.00%)	0.08%
	Sleep Problems, N restless sleep (%)	4039 (29.67%)	1.67%

Adulthood Social Connections

	History of Divorce, N divorced (%)	4275 (31.41%)	0.00%
	Never Married, N never married (%)	438 (3.22%)	0.00%
	Lower Positive Interactions with Children, units (SD)	3.28 (0.72)	10.55%
	Negative Interactions with Children, units (SD)	1.69 (0.63)	11.38%
	Lower Positive Interactions with Family, units (SD)	2.89 (0.87)	7.81%
	Negative Interactions with Family, units (SD)	1.57 (0.62)	9.62%
	Lower Positive Interactions with Friends, units (SD)	3.05 (0.75)	9.23%
	Negative Interactions with Friends, units (SD)	1.41 (0.49)	10.48%

Adulthood Psychological

	Lower Agreeableness, units (SD)	2.73 (0.38)	5.09%
	Lower Extroversion, units (SD)	3.20 (0.55)	5.22%
	Lower Neuroticism, units (SD)	2.86 (0.37)	4.24%

	Lower Conscientiousness, units (SD)	3.06 (0.41)	5.89%
	Lower Openness to Experiences, units (SD)	2.94 (0.55)	7.13%
	Anger Out, units (SD)	1.49 (0.51)	4.64%
	Anger In, units (SD)	2.17 (0.68)	3.97%
	Cynical Hostility, units (SD)	2.93 (1.13)	6.95%
	Hopelessness, units (SD)	2.39 (1.29)	4.30%
	Loneliness, units (SD)	1.48 (0.54)	2.89%
	Lower Life Satisfaction, units (SD)	4.38 (1.21)	49.64%
	Lower Optimism, units (SD)	4.54 (1.15)	4.07%
	Pessimism, units (SD)	2.60 (1.29)	4.61%
	Lower Positive Affectivity, units (SD)	3.59 (0.74)	6.73%
	Negative Affectivity, units (SD)	1.96 (0.56)	5.88%
	Lower Purpose in Life, units (SD)	4.59 (0.93)	6.56%
	Lower Religiosity, units (SD)	5.03 (1.38)	3.25%
	Perceptions of Obstacles, units (SD)	2.22 (1.20)	3.35%
	Lower Sense of Mastery, units (SD)	4.76 (1.11)	2.99%
	Trait Anxiety, units (SD)	1.57 (0.58)	3.70%
Adulthood Adverse Experiences			
	Adulthood Psychosocial Adversity, units (SD)	1.22 (1.15)	4.05%
	Daily Discrimination, units (SD)	1.61 (0.73)	3.42%
	Major discrimination, units (SD)	0.46 (0.88)	4.63%

Table S2. Hazard ratios and 95% confidence intervals for each interaction between each predictor and gender, Health and Retirement Study

Variable	HR for interaction	95% CI
Childhood Adversity		
Lower Father Occupational Status	1.036	(0.963, 1.114)
Lower Education Father	0.970	(0.866, 1.085)
Lower Education Mother	0.959	(0.859, 1.070)
Family Received Financial Help in Childhood	0.981	(0.880, 1.094)
Father was Unemployed in Childhood	0.948	(0.872, 1.031)
Relocated Homes in Childhood	1.033	(0.948, 1.125)
Childhood Psychosocial Adversities	0.961	(0.886, 1.042)
Adulthood Socioeconomic		
Lower Income	1.034	(0.870, 1.230)
Lower Wealth	1.069	(0.940, 1.216)
Lower Education	1.033	(0.962, 1.110)
Lower Occupational Status	1.056	(0.951, 1.172)
Recent Financial Difficulties	1.081	(1.002, 1.167)
History of Unemployment	0.928	(0.776, 1.109)
History of Renting	1.044	(0.960, 1.136)
History of Food Insecurity	1.036	(0.943, 1.138)
History of Food Stamps	1.087	(0.946, 1.249)
History of Medicaid	1.043	(0.942, 1.155)

Lower Neighborhood Cohesion	0.982	(0.915, 1.054)
Neighborhood Disorder	1.024	(0.949, 1.106)
Lower Neighborhood Safety	1.032	(0.957, 1.113)
Adulthood Health Behaviors		
Alcohol Abuse	1.070	(0.868, 1.320)
Current Smoker	0.988	(0.887, 1.102)
History of Smoking	0.950	(0.877, 1.029)
Low/No Moderate Activity	1.030	(0.958, 1.108)
Low/No Vigorous Activity	0.993	(0.892, 1.107)
Sleep Problems	1.060	(0.977, 1.150)
Adulthood Social Connections		
History of Divorce	0.966	(0.885, 1.055)
Never Married	1.006	(0.801, 1.263)
Lower Positive Interactions with Children	1.002	(0.923, 1.087)
Negative Interactions with Children	1.023	(0.936, 1.118)
Lower Positive Interactions with Family	0.992	(0.918, 1.072)
Negative Interactions with Family	1.021	(0.931, 1.119)
Lower Positive Interactions with Friends	0.995	(0.922, 1.073)
Negative Interactions with Friends	1.032	(0.955, 1.115)
Adulthood Psychological		
Lower Agreeableness	0.976	(0.909, 1.048)
Lower Extroversion	0.954	(0.887, 1.028)
Lower Neuroticism	1.002	(0.938, 1.072)

Lower Conscientiousness	0.998	(0.938, 1.062)
Lower Openness to Experiences	0.986	(0.919, 1.059)
Anger Out	0.999	(0.917, 1.088)
Anger In	0.991	(0.916, 1.072)
Cynical Hostility	1.041	(0.962, 1.126)
Hopelessness	0.983	(0.913, 1.058)
Loneliness	0.981	(0.91, 1.058)
Lower Life Satisfaction	0.999	(0.905, 1.102)
Lower Optimism	0.965	(0.896, 1.040)
Pessimism	0.986	(0.914, 1.064)
Lower Positive Affectivity	0.993	(0.917, 1.075)
Negative Affectivity	0.971	(0.904, 1.042)
Lower Purpose in Life	0.975	(0.905, 1.051)
Lower Religiosity	0.995	(0.920, 1.076)
Perceptions of Obstacles	0.984	(0.919, 1.053)
Lower Sense of Mastery	1.012	(0.945, 1.084)
Trait Anxiety	1.008	(0.935, 1.088)
Adulthood Adverse Experiences		
Adulthood Psychosocial Adversity	1.053	(0.977, 1.135)
Daily Discrimination	0.988	(0.912, 1.069)
Major Discrimination	1.001	(0.918, 1.093)

Table S3. Hazard ratios and 95% confidence intervals for each interaction between each predictor and identification as White or non-White, Health and Retirement Study

Variable	HR for interaction	95% CI
Childhood Adversity		
Lower Father Occupational Status	1.168	(0.826, 1.654)
Lower Education Father	1.009	(0.693, 1.469)
Lower Education Mother	0.965	(0.633, 1.470)
Family Received Financial Help in Childhood	1.102	(0.822, 1.477)
Father was Unemployed in Childhood	0.827	(0.628, 1.090)
Relocated Homes in Childhood	0.952	(0.733, 1.236)
Childhood Psychosocial Adversities	1.027	(0.794, 1.329)
Adulthood Socioeconomic		
Lower Income	0.420	(0.065, 2.726)
Lower Wealth	0.655	(0.129, 3.330)
Lower Education	1.148	(0.913, 1.445)
Lower Occupational Status	0.961	(0.717, 1.287)
Recent Financial Difficulties	1.080	(0.842, 1.387)
History of Unemployment	0.713	(0.460, 1.106)
History of Renting	0.898	(0.695, 1.160)
History of Food Insecurity	0.909	(0.710, 1.163)
History of Food Stamps	1.003	(0.725, 1.388)
History of Medicaid	0.907	(0.697, 1.181)

Lower Neighborhood Cohesion	0.989	(0.801, 1.222)
Neighborhood Disorder	1.049	(0.818, 1.345)
Lower Neighborhood Safety	1.037	(0.816, 1.318)
Adulthood Health Behaviors		
Alcohol Abuse	1.092	(0.659, 1.809)
Current Smoker	1.122	(0.850, 1.481)
History of Smoking	1.085	(0.852, 1.380)
Low/No Moderate Activity	1.055	(0.826, 1.348)
Low/No Vigorous Activity	1.014	(0.690, 1.489)
Sleep Problems	1.108	(0.845, 1.453)
Adulthood Social Connections		
History of Divorce	1.089	(0.825, 1.437)
Never Married	0.851	(0.475, 1.525)
Lower Positive Interactions with Children	1.098	(0.855, 1.410)
Negative Interactions with Children	1.071	(0.758, 1.513)
Lower Positive Interactions with Family	0.989	(0.756, 1.293)
Negative Interactions with Family	1.124	(0.821, 1.538)
Lower Positive Interactions with Friends	0.918	(0.726, 1.160)
Negative Interactions with Friends	1.000	(0.803, 1.247)
Adulthood Psychological		
Lower Agreeableness	1.039	(0.802, 1.346)
Lower Extroversion	0.979	(0.762, 1.257)
Lower Neuroticism	1.035	(0.843, 1.272)

Lower Conscientiousness	1.059	(0.890, 1.261)
Lower Openness to Experiences	0.983	(0.770, 1.255)
Anger Out	1.051	(0.833, 1.326)
Anger In	1.059	(0.821, 1.364)
Cynical Hostility	0.971	(0.762, 1.237)
Hopelessness	0.921	(0.717, 1.183)
Loneliness	1.093	(0.878, 1.361)
Lower Life Satisfaction	1.029	(0.786, 1.348)
Lower Optimism	1.096	(0.857, 1.401)
Pessimism	0.989	(0.775, 1.261)
Lower Positive Affectivity	1.004	(0.797, 1.265)
Negative Affectivity	1.128	(0.912, 1.395)
Lower Purpose in Life	0.961	(0.731, 1.264)
Lower Religiosity	0.916	(0.701, 1.196)
Perceptions of Obstacles	1.062	(0.860, 1.310)
Lower Sense of Mastery	1.077	(0.873, 1.328)
Trait Anxiety	1.150	(0.914, 1.448)
Adulthood Adverse Experiences		
Adulthood Psychosocial Adversity	1.093	(0.841, 1.420)
Daily Discrimination	1.119	(0.883, 1.418)
Major Discrimination	1.101	(0.896, 1.353)

Table S4. Hazard ratios and 95% confidence intervals for each interaction between each predictor and whether educational status (completed high school or not), Health and Retirement Study

Variable	HR for interaction	95% CI
Childhood Adversity		
Lower Father Occupational Status	0.917	(0.786, 1.070)
Lower Education Father	1.027	(0.811, 1.301)
Lower Education Mother	1.044	(0.825, 1.322)
Family Received Financial Help in Childhood	0.919	(0.789, 1.070)
Father was Unemployed in Childhood	0.995	(0.852, 1.162)
Relocated Homes in Childhood	0.954	(0.820, 1.109)
Childhood Psychosocial Adversities	0.952	(0.797, 1.137)
Adulthood Socioeconomic		
Lower Income	0.858	(0.574, 1.285)
Lower Wealth	1.209	(0.875, 1.671)
Lower Education	0.824	(0.649, 1.047)
Lower Occupational Status	0.949	(0.755, 1.193)
Recent Financial Difficulties	0.915	(0.760, 1.102)
History of Unemployment	0.907	(0.762, 1.080)
History of Renting	0.956	(0.822, 1.112)
History of Food Insecurity	1.020	(0.879, 1.185)
History of Food Stamps	0.884	(0.756, 1.034)

History of Medicaid	0.884	(0.758, 1.032)
Lower Neighborhood Cohesion	1.002	(0.851, 1.180)
Neighborhood Disorder	1.012	(0.859, 1.192)
Lower Neighborhood Safety	1.000	(0.848, 1.180)
Adulthood Health Behaviors		
Alcohol Abuse	0.886	(0.760, 1.034)
Current Smoker	0.901	(0.772, 1.050)
History of Smoking	1.078	(0.927, 1.254)
Low/No Moderate Activity	0.982	(0.845, 1.142)
Low/No Vigorous Activity	1.009	(0.866, 1.174)
Sleep Problems	0.924	(0.792, 1.078)
Adulthood Social Connections		
History of Divorce	0.980	(0.842, 1.140)
Never Married	0.875	(0.751, 1.019)
Lower Positive Interactions with Children	0.952	(0.808, 1.122)
Negative Interactions with Children	0.922	(0.778, 1.092)
Lower Positive Interactions with Family	1.074	(0.917, 1.259)
Negative Interactions with Family	0.976	(0.810, 1.175)
Lower Positive Interactions with Friends	1.065	(0.914, 1.242)
Negative Interactions with Friends	0.988	(0.834, 1.171)
Adulthood Psychological		
Lower Agreeableness	1.030	(0.892, 1.189)
Lower Extroversion	1.037	(0.883, 1.217)

Lower Neuroticism	0.966	(0.835, 1.119)
Lower Conscientiousness	0.983	(0.854, 1.132)
Lower Openness to Experiences	0.982	(0.841, 1.146)
Anger Out	0.982	(0.826, 1.166)
Anger In	0.986	(0.836, 1.163)
Cynical Hostility	1.001	(0.845, 1.186)
Hopelessness	1.018	(0.866, 1.197)
Loneliness	0.954	(0.813, 1.120)
Lower Life Satisfaction	0.982	(0.801, 1.204)
Lower Optimism	0.941	(0.807, 1.098)
Pessimism	0.997	(0.840, 1.183)
Lower Positive Affectivity	0.988	(0.838, 1.164)
Negative Affectivity	0.923	(0.781, 1.092)
Lower Purpose in Life	0.980	(0.842, 1.140)
Lower Religiosity	1.019	(0.872, 1.191)
Perceptions of Obstacles	0.959	(0.831, 1.108)
Lower Sense of Mastery	1.002	(0.873, 1.150)
Trait Anxiety	0.961	(0.806, 1.146)
Adulthood Adverse Experiences		
Adulthood Psychosocial Adversity	0.898	(0.771, 1.045)
Daily Discrimination	0.898	(0.756, 1.066)
Major Discrimination	1.041	(0.868, 1.247)

Table S5. Hazard ratios and 95% confidence intervals for each interaction between each predictor and age (<75 vs 75+), Health and Retirement Study.

Variable	Interaction effect	<75		75+		
			95% CI	HR	95% CI	
Childhood Adversity						
Lower Father Occupational Status	0.787	(0.589, 1.050)	1.119	(0.992, 1.263)	1.042	(0.948, 1.145)
Lower Education Father	0.700	(0.551, 0.890)	1.099	(0.976, 1.238)	1.031	(0.830, 1.281)
Lower Education Mother	0.753	(0.590, 0.961)	1.039	(0.921, 1.173)	0.839	(0.673, 1.047)
Family Received Financial Help in Childhood	4.227	(2.712, 6.587)	1.122	(0.948, 1.329)	1.034	(0.905, 1.182)
Father was Unemployed in Childhood	2.683	(1.863, 3.864)	1.026	(0.885, 1.189)	0.991	(0.893, 1.099)
Relocated Homes in Childhood	3.143	(2.132, 4.635)	1.061	(0.914, 1.231)	1.067	(0.962, 1.183)
Childhood Psychosocial Adversities	0.868	(0.720, 1.045)	1.168	(1.043, 1.308)	1.098	(0.987, 1.221)
Adulthood Socioeconomic						
Lower Income	0.039	(0.004, 0.349)	2.131	(1.126, 4.036)	0.906	(0.726, 1.131)
Lower Wealth	0.097	(0.019, 0.491)	1.995	(1.055, 3.770)	1.020	(0.930, 1.118)

Lower Education	0.769	(0.601, 0.985)	1.224	(1.077, 1.391)	1.055	(0.960, 1.160)
Lower Occupational Status	0.668	(0.524, 0.851)	1.239	(1.097, 1.400)	1.011	(0.883, 1.158)
Recent Financial Difficulties	0.673	(0.560, 0.809)	1.414	(1.258, 1.590)	1.166	(1.047, 1.298)
History of Unemployment	4.806	(3.332, 6.932)	1.266	(1.084, 1.479)	1.027	(0.679, 1.553)
History of Renting	1.433	(1.071, 1.918)	1.280	(1.126, 1.455)	0.906	(0.819, 1.003)
History of Food Insecurity	1.785	(1.311, 2.432)	1.265	(1.097, 1.459)	0.995	(0.864, 1.147)
History of Food Stamps	3.043	(2.069, 4.474)	1.435	(1.219, 1.690)	1.037	(0.835, 1.286)
History of Medicaid	2.416	(1.667, 3.501)	1.394	(1.193, 1.628)	1.015	(0.886, 1.163)
Lower Neighborhood Cohesion	0.730	(0.609, 0.875)	1.243	(1.121, 1.378)	1.047	(0.960, 1.143)
Neighborhood Disorder	0.739	(0.613, 0.891)	1.214	(1.090, 1.353)	1.057	(0.957, 1.168)
Lower Neighborhood Safety	0.825	(0.660, 1.031)	1.180	(1.039, 1.339)	1.114	(1.011, 1.227)
Adulthood Health Behaviors						
Alcohol Abuse	6.884	(4.332, 10.939)	1.193	(0.976, 1.458)	1.206	(0.895, 1.624)
Current Smoker	2.152	(1.645, 2.815)	1.717	(1.502, 1.963)	1.623	(1.352, 1.949)
History of Smoking	0.431	(0.313, 0.595)	1.362	(1.191, 1.559)	1.245	(1.130, 1.371)
Low/No Moderate Activity	0.618	(0.481, 0.794)	1.350	(1.200, 1.518)	1.042	(0.950, 1.142)

Low/No Vigorous Activity	0.163	(0.107, 0.250)	1.447	(1.220, 1.717)	1.008	(0.874, 1.162)
Sleep Problems	1.100	(0.845, 1.432)	1.299	(1.149, 1.468)	0.993	(0.899, 1.096)
Adulthood Social Connections						
History of Divorce	1.504	(1.176, 1.923)	1.263	(1.120, 1.424)	1.332	(1.128, 1.573)
Never Married	15.47	(7.683, 31.172)	1.227	(0.914, 1.645)	1.172	(0.865, 1.587)
Lower Positive Interactions with Children	0.850	(0.698, 1.034)	1.201	(1.076, 1.341)	1.112	(1.000, 1.235)
Negative Interactions with Children	0.739	(0.607, 0.898)	1.310	(1.173, 1.464)	1.079	(0.963, 1.209)
Lower Positive Interactions with Family	0.919	(0.726, 1.163)	1.096	(0.971, 1.237)	1.076	(0.978, 1.184)
Negative Interactions with Family	0.778	(0.640, 0.946)	1.288	(1.155, 1.438)	1.078	(0.956, 1.215)
Lower Positive Interactions with Friends	0.970	(0.749, 1.256)	0.957	(0.841, 1.089)	0.992	(0.905, 1.087)
Negative Interactions with Friends	0.825	(0.687, 0.991)	1.190	(1.067, 1.328)	1.084	(0.985, 1.194)
Adulthood Psychological						
Lower Agreeableness	1.030	(0.795, 1.335)	0.931	(0.822, 1.054)	0.989	(0.907, 1.078)
Lower Extroversion	0.727	(0.581, 0.911)	1.215	(1.075, 1.374)	1.082	(0.988, 1.185)
Lower Neuroticism	0.651	(0.537, 0.788)	1.268	(1.132, 1.421)	1.059	(0.973, 1.153)
Lower Conscientiousness	0.606	(0.516, 0.710)	1.320	(1.190, 1.464)	1.064	(0.986, 1.149)

Lower Openness to Experiences	0.772	(0.613, 0.972)	1.112	(0.992, 1.247)	1.044	(0.954, 1.141)
Anger Out	0.790	(0.665, 0.938)	1.226	(1.095, 1.372)	1.107	(0.991, 1.237)
Anger In	0.791	(0.626, 1.001)	1.205	(1.062, 1.366)	1.068	(0.976, 1.169)
Cynical Hostility	0.645	(0.521, 0.798)	1.287	(1.140, 1.453)	1.048	(0.952, 1.153)
Hopelessness	0.524	(0.441, 0.623)	1.439	(1.289, 1.606)	1.037	(0.947, 1.135)
Loneliness	0.674	(0.558, 0.813)	1.286	(1.153, 1.433)	1.042	(0.953, 1.139)
Lower Life Satisfaction	0.514	(0.426, 0.620)	1.565	(1.380, 1.775)	1.113	(0.983, 1.260)
Lower Optimism	0.719	(0.592, 0.875)	1.221	(1.092, 1.366)	1.074	(0.980, 1.177)
Pessimism	0.552	(0.460, 0.663)	1.405	(1.258, 1.570)	1.042	(0.948, 1.145)
Lower Positive Affectivity	0.594	(0.490, 0.720)	1.360	(1.210, 1.527)	1.047	(0.952, 1.152)
Negative Affectivity	0.672	(0.581, 0.777)	1.392	(1.260, 1.538)	1.151	(1.045, 1.268)
Lower Purpose in Life	0.505	(0.412, 0.618)	1.439	(1.271, 1.630)	1.053	(0.958, 1.157)
Lower Religiosity	1.020	(0.793, 1.313)	1.005	(0.886, 1.140)	0.972	(0.881, 1.073)
Perceptions of Obstacles	0.564	(0.477, 0.666)	1.399	(1.260, 1.554)	1.037	(0.953, 1.129)
Lower Sense of Mastery	0.678	(0.568, 0.809)	1.229	(1.104, 1.367)	1.034	(0.950, 1.125)
Trait Anxiety	0.592	(0.507, 0.692)	1.428	(1.286, 1.584)	1.098	(0.998, 1.208)

Adulthood Adverse Experiences						
Adulthood Psychosocial Adversity	0.788	(0.617, 1.007)	0.788	(0.617, 1.007)	1.090	(0.965, 1.231)
Daily Discrimination	0.794	(0.678, 0.928)	0.794	(0.678, 0.928)	1.249	(1.131, 1.380)
Major Discrimination	0.821	(0.693, 0.972)	0.821	(0.693, 0.972)	1.206	(1.083, 1.343)

Table S6. Hazard ratios and 95% confidence intervals for each predictor ranked from strongest to weakest association with mortality over the study period, censored participants who died within two years of 2008, Health and Retirement Study

Variable	HR	95% CI
Current Smoker	1.849	(1.619, 2.112)
History of Divorce	1.469	(1.315, 1.641)
Alcohol Abuse	1.395	(1.144, 1.700)
History of Smoking	1.306	(1.192, 1.430)
Recent Financial Difficulties	1.292	(1.180, 1.415)
History of Unemployment	1.263	(1.024, 1.557)
History of Food Stamps	1.259	(1.062, 1.493)
Daily Discrimination	1.229	(1.124, 1.344)
Lower Life Satisfaction	1.224	(1.092, 1.371)
Negative Interactions with Children	1.222	(1.108, 1.346)
Negative Interactions with Family	1.217	(1.099, 1.347)
Never Married	1.215	(0.936, 1.578)
Major Discrimination	1.209	(1.097, 1.334)
Childhood Psychosocial Adversities	1.194	(1.085, 1.314)
Lower Positive Interactions with Children	1.190	(1.085, 1.305)
Negative Interactions with Friends	1.178	(1.078, 1.286)
Negative Affectivity	1.163	(1.063, 1.272)
Anger Out	1.159	(1.055, 1.273)

Trait Anxiety	1.158	(1.059, 1.267)
Cynical Hostility	1.152	(1.052, 1.262)
Anger In	1.143	(1.043, 1.252)
Pessimism	1.136	(1.038, 1.242)
Lower Positive Interactions with Family	1.126	(1.030, 1.232)
Lower Wealth	1.123	(0.947, 1.330)
Lower Neighborhood Cohesion	1.121	(1.034, 1.214)
Lower Optimism	1.115	(1.024, 1.213)
Lower Neighborhood Safety	1.113	(1.014, 1.223)
Neighborhood Disorder	1.106	(1.015, 1.205)
Lower Occupational Status	1.102	(0.984, 1.233)
Low/No Vigorous Activity	1.093	(0.969, 1.234)
Hopelessness	1.092	(1.003, 1.190)
History of Food Insecurity	1.091	(0.962, 1.237)
Loneliness	1.088	(0.995, 1.188)
Lower Positive Affectivity	1.084	(0.989, 1.189)
Sleep Problems	1.068	(0.973, 1.173)
Family Received Financial Help in Childhood	1.061	(0.932, 1.209)
Lower Father Occupational Status	1.055	(0.965, 1.153)
Low/No Moderate Activity	1.051	(0.964, 1.145)
History of Renting	1.050	(0.949, 1.161)
Lower Conscientiousness	1.050	(0.972, 1.134)
Lower Neuroticism	1.049	(0.968, 1.137)

Perceptions of Obstacles	1.049	(0.966, 1.138)
Lower Extroversion	1.044	(0.956, 1.140)
History of Medicaid	1.038	(0.911, 1.184)
Relocated Homes in Childhood	1.036	(0.935, 1.148)
Lower Education	1.035	(0.948, 1.130)
Lower Income	1.030	(0.863, 1.231)
Lower Purpose in Life	1.021	(0.933, 1.118)
Lower Openness to Experiences	1.005	(0.925, 1.093)
Lower Sense of Mastery	0.988	(0.909, 1.074)
Lower Religiosity	0.982	(0.893, 1.081)
Lower Education Father	0.976	(0.854, 1.116)
Father was Unemployed in Childhood	0.954	(0.861, 1.058)
Lower Positive Interactions with Friends	0.940	(0.858, 1.031)
Lower Agreeableness	0.928	(0.854, 1.009)
Adulthood Psychosocial Adversity	0.903	(0.823, 0.991)
Lower Education Mother	0.857	(0.750, 0.979)

Table S7. Comparison of variables between the Health and Retirement Study (HRS) and the Midlife in the United States (MIDUS) study for Harmonization

Demographic	HRS	MIDUS, variable, and categories	Harmonized?
Age	✓	A1PAGE_M2 Numeric age was z-scored	Yes
Male	✓	A1PRSEX Sex was coded 1 for male and -1 for female	Yes
Hispanic	✓	No item from MIDUS could be harmonized with the HRS items	No
Black	✓	A1SS7 What race do you consider yourself to be? White; Black and/or African American; Native American or Aleutian Islander/Eskimo; Asian or Pacific Islander; Other; Multiracial Those who reported being Black and/or African American were coded 1 and any other response was coded -1	Yes
Foreign Born	✓	A1SE2	Yes

		<p>Were you born in the United States? Those who responded No were coded 1, those who responded Yes were coded -1</p>	
--	--	---	--

Childhood Adversity	HRS	MIDUS	Harmonized?
Lower Father Occupational Status	Coded by categorizing the respondent's father's occupation as (1) Executives and managers, (2) Professional specialty, (3) Sales and administration, (4) Protection services and armed forces, (5) Cleaning, building, food preparation, and personal services, and (6) Production, construction, and operation occupations. Scores were then standardized to have a mean of 0 and standard deviation of 1	A1POCDMJ 1 = Technician and related support; Service occupation; Farming, forestry, and fishing; Precision production, crafts, and repair; Operator, laborer, and military -1 = Executive, administrative, and managerial; Professional specialty, Sales occupation; Administrative support including clerical	Yes
Lower Education Father	Coded as (0) less than high school for less than 12 years; (1) high school	A1PC2 3 = No school/some grade school;	Yes

	<p>graduate or GED for 12 years; (2) some college for 13-15 years; (3) college and above for 16 or more years.</p>	<p>Eighth grade/junior high school; Some high school 2= Graduated from high school; GED 1 = 1 to 2 years of college, no degree yet; 3 or more years of college, no degree yet; Graduated 2 year college or vocational school, or associate's degree 0 = Graduated 4 or 5 year college or bachelor's degree; Some graduate school; Master's degree; PH.D, ED.D, MD, DDS, LLB, LLD, JD, or other professional degree Z-scored</p>	
Lower Education Mother	<p>Coded as (0) less than high school for less than 12 years; (1) high school graduate or GED for 12 years; (2) some college</p>	<p>A1PC8 (Same coding as A1PC2)</p>	Yes

	for 13-15 years; (3) college and above for 16 or more years.		
Family Received Financial Help in Childhood	Before age 16, was there a time when you or your family received help from relatives because of financial difficulties?	No item from MIDUS could be harmonized with the HRS items	No
Father was Unemployed in Childhood	coded as binary (-1/1), with 1 indicating that before the age of 18 the respondent's father ever lost his job and -1 indicating that this did not occur	No item from MIDUS could be harmonized with the HRS items	No
Relocated Homes in Childhood	was coded as binary (-1/1), with 1 indicating that before the age of 18 the respondent's family ever had to relocate due to financial difficulties and -1 indicating that this did not occur.	No item from MIDUS could be harmonized with the HRS items	No

Childhood	was a composite measure scored by summing the binary (0/1) responses to whether before the age of 18 the respondent had ever experienced physical abuse before age 18; parents' substance or alcohol use caused problems in the home; and had to repeat a year of school.	No item from MIDUS could be harmonized with the HRS items	No
------------------	---	---	----

Adulthood	HRS	MIDUS	Harmonized?
Socioeconomic			
Lower Income	measured in nominal dollars in survey year 2006 and is the sum of all income in a household, including: Respondent's and spouse's wage/salary income, bonuses/overtime	A1SHHTOT Household total income from wage, pension, social security, and other sources Reverse coded and z-scored	Yes

	<p>pay/commissions/tips, 2nd job or military reserve earnings, professional practice or trade income; household business or farm income, self- employment earnings, business income, gross rent, dividend and interest income, trust funds or royalties, and other asset income; respondent's and spouse's income from all pensions and annuities; respondent's and spouse's total Social Security income (including that which is and is not received due to disability); respondent's and spouse's income from unemployment and</p>		
--	---	--	--

	<p>worker's compensation; respondent's and spouse's income from veterans' benefits, welfare, and food stamps; and alimony, other income, and lump sums from insurance, pension, and inheritance at the household level.</p>		
Lower Wealth	<p>measured in nominal dollars in survey year 2006/2008 as the sum of all wealth components (except secondary home) less all debt</p>	<p>A1SJ15: Money left over/money owed [after being asked "Suppose you (and your spouse or partner) cashed in all your checking and savings accounts, stocks and bonds, real estate, sold your home, your vehicles, and all your valuable possessions. Then suppose you put that money toward paying off your mortgage and all your other loans, debts, and credit cards. Would you have any money left over after paying</p>	Yes

		<p>your debts or would you still owe money?”]</p> <p>36 = Less than \$0/loss; 35 = \$0 (none);</p> <p>34 = \$1-999; 33 = \$1,000-1,999;</p> <p>32 = \$2,000-2,999; 31 = \$3,000-3,999;</p> <p>30 = \$4,000-4,999; 29 = \$5,000-5,999;</p> <p>28 = \$6,000-6,999; 27 = \$7,000-7,999;</p> <p>26 = \$8,000-8,999; 25 = \$9,000-9,999;</p> <p>24 = \$10,000-10,999; 23 = (14)</p> <p>\$11,000-11,999;</p> <p>22 = \$12,000-12,999; 21 =</p> <p>\$13,000-13,999;</p> <p>20 = \$14,000-14,999; 19 =</p> <p>\$15,000-15,999;</p> <p>18 = \$16,000-16,999; 17 =</p> <p>\$17,000-17,999;</p> <p>16 = \$18,000-18,999; 15 =</p> <p>\$19,000-19,999;</p>	
--	--	--	--

		<p>14 = \$20,000-24,999; 13 = \$25,000-29,999;</p> <p>12 = \$30,000-34,999; 11 = \$35,000-39,999;</p> <p>10 = \$40,000-44,999; 9 = \$45,000-49,999;</p> <p>8 = \$50,000-74,999; 7 = \$75,000-99,999;</p> <p>6 = \$100,000-149,999; 5 = \$150,000-199,999;</p> <p>4 = \$200,000-299,999; 3 = \$300,000-499,999;</p> <p>2 = \$500,000-999,999; 1 = \$1,000,000 or more</p> <p>Z-scored</p>	
Lower Education	<p>coded as (0) less than high school; (1) high school graduate or GED; (2) some college; (3) college and above.</p> <p>These scores were then reverse coded and standardized to have a</p>	<p>A1PEDUCP</p> <p>4 = Some grade school to some high school</p> <p>3 = GED to graduated high school</p> <p>2 = Some college (no bachelor's degree)</p>	Yes

	mean of 0 and standard deviation of 1.	1 = Graduated college to doctorate or professional degree Z Scored	
Lower Occupational Status	(1) Executives and managers, (2) Professional specialty, (3) Sales and administration, (4) Protection services and armed forces, (5) Cleaning, building, food preparation, and personal services, and (6) Production, construction, and operation occupations	A1POCMJ 1 = Technician and related support; Service occupation; Farming, forestry, and fishing; Precision production, crafts, and repair; Operator, laborer, and military -1 = Executive, administrative, and managerial; Professional specialty, Sales occupation; Administrative support including clerical	Yes
Recent Financial Difficulties	measured by asking respondents to how difficult is it for them to meet their/their families monthly bill payments, coding their responses	A1SJ7 How difficult is it for you (and your family) to pay your monthly bills? 4 = Very difficult	Yes

	<p>“Not at all difficult”, “Not very difficult”, “Somewhat difficult”, “Very difficult”, “Completely difficult”) on a 5-point Likert scale</p>	<p>3 = Somewhat difficult 2 = Not very difficult 1 = Not at all difficult Z scored</p>	
History of Unemployment	<p>coded as binary (-1/1), with 1 indicating the respondent had reported ever being unemployed over the study period (1995-2006), with a one-item question that asked at each assessment whether the respondent is not working for pay and reports actively looking for a job in the last four weeks and -1 indicating otherwise.</p>	<p>A1PB3C: What about your current employment situation - are you working for pay now, self-employed, looking for work, temporarily laid off, retired, a homemaker, a full-time or part-time student, or something else? Looking for work; unemployed A1SI1I1 We are interested in the different kinds of work situations you were in ten years ago, those you are in now, and those you think you will be in ten years from now. For each time frame, indicate whether or not each situation was, is, or will probably be true for you. 10</p>	Yes

		<p>years ago: Unemployed and looking for work</p> <p>1 = Yes to either item -1 = no to both items</p>	
History of Renting	<p>coded as binary (-1/1), with 1 indicating the respondent had reported ever renting their dwelling over the study period (1992-2008), with a one-item question that asked at each assessment, “Do you (and (your (husband/wife/partner)) own your home, rent it, or what?”, and -1 indicating otherwise.</p>	<p>A1SL4</p> <p>Do you own your home outright, are you paying on a mortgage, or do you rent? (If you have more than one home, answer for your primary residence.)</p> <p>1 = Rent -1 = Own home outright OR Paying on a mortgage</p>	Yes
History of Food Insecurity	<p>coded as binary (-1/1), with 1 indicating the respondent had reported not having enough money to buy the food they needed any point</p>	No item from MIDUS could be harmonized with the HRS items	No

	<p>over the study period (1996-2008) with a one-item question that asked at each assessment, “Since (your previous participation/in the last two years), have you always had enough money to buy the food you need?”. -1 indicates the respondent had enough money to buy the food they needed.</p>		
History of Food Stamps	<p>coded as binary (-1/1), with 1 indicating the respondent had reported ever receiving food stamps over the study period (1995-2008), with a one-item question that asked at each assessment, “Did you (or other family members who were living here) receive</p>	No item from MIDUS could be harmonized with the HRS items	No

	<p>government food stamps at any time [since [Previous Wave Month] [PREV WAVE IW YEAR OF FINANCIAL R]/in the last two years] ?", and -1 indicating otherwise.</p>		
History of Medicaid	<p>coded as binary (-1/1), with 1 indicating the respondent had reported ever being on Medicaid over the study period (1992-2006), with a one-item question that asked at each assessment, "Are you currently covered by (Medicaid/State name for Medicaid)?" and -1 indicating otherwise.</p>	<p>A1SC1G</p> <p>Are you currently covered by any of the following health insurance plans? Do not include those that pay only for accidents (such as through your car insurance) or disability (such as disability insurance). (If you have no spouse or partner, or no union, circle "5" for those questions.)</p> <p>Medicaid, or other government health insurance based on financial need</p> <p>1 = Yes</p>	Yes

		-1 = no	
Lower Neighborhood Cohesion	the mean of the following items was calculated: (i) I really feel part of this area/I feel that I don't belong in this area; (ii) Most people in this area can be trusted/Most people in this area can't be trusted; (iii) Most people in this area are friendly/Most people in this area are unfriendly; and (iv) If you were in trouble, there are lots of people in this area who would help you/If you were in trouble, there is nobody in this area who would help you	A1SHOMET Perceived quality of neighborhood Reverse coded and z scored	Yes
Neighborhood Disorder	averaging the responses to items: (i) There is no problem with vandalism and graffiti in this	No item from MIDUS could be harmonized with the HRS items	No

	<p>area/Vandalism and graffiti are a big problem in this area; (ii) People feel safe walking alone in this area after dark/People would be afraid to walk alone in this area after dark; (iii) This area is kept very clean/This area is always full of rubbish and litter; and (iv) There are no vacant or deserted houses or storefronts in this area/There are many vacant or deserted houses or storefronts in this area</p>		
Lower Neighborhood Safety	measured by asking respondents to report the safety of their neighborhood in the survey year 2006/2008, coding their responses	No item from MIDUS could be harmonized with the HRS items	No

	(“Excellent”, “Very good”, “Good”, “Fair”, “Poor”) on a 5-point Likert scale.		
--	---	--	--

Adulthood Health Behaviors	HRS	MIDUS	Harmonized?
Alcohol Abuse	binary (-1/1), with 1 indicating the respondent reported being a heavy drinker and -1 indicating the respondent did not report being a heavy drinker.	A1SA9U In the past 12 months, have you experienced or been treated for any of the following? Alcohol or drug problems 1 = Yes -1 = No	Yes
Current Smoker	coded as binary (-1/1), with 1 indicating the respondent reported being a current smoker and -1 otherwise.	A1PA43 Do you smoke cigarettes regularly now? 1 = Yes -1 = No	Yes
History of Smoking	coded as binary (-1/1), with 1 indicating the	A1PA40	Yes

	respondent reported ever smoking and -1 indicating otherwise.	Have you ever smoked cigarettes regularly - that is, at least a few cigarettes every day? 1 = Yes -1 = No	
Low/No Moderate Activity	binary (1/-1), with -1 indicating the respondent reported completing moderate activity more than once per week and 1 indicating otherwise	A1SMODER Times/month moderate activity 1 = < 4 -1 = >=4	Yes
Low/No Vigorous Activity	coded as binary (1/-1), with -1 indicating the respondent reported completing vigorous activity more than once per week and 1 indicating otherwise.	A1SVIGOR Times/month vigorous activity 1 = < 4 -1 = >=4	Yes
Sleep Problems	coded as binary (-1/1), with 1 indicating the respondent reported restless sleep and -1 otherwise.	A1SA12G During the past 30 days, how often have you experienced the following? Trouble getting to sleep or staying asleep.	Yes

		<p>6 = Almost every day</p> <p>5 = Several times a week</p> <p>4 = Once a week</p> <p>3 = Several times a month</p> <p>2 = Once a month</p> <p>1 = Not at all</p> <p>Z-scored</p>	
--	--	---	--

Adulthood Social Connections	HRS	MIDUS	Harmonized?
History of Divorce	<p>coded as binary (-1/1), with 1 indicating the respondent reported being divorced or separated over the course of the study period (1992-2008) and -1 indicating the respondent never reported being divorced no separated.</p>	<p>A1PB17</p> <p>Are you married, separated, divorced, widowed, or never married?</p> <p>A1PB20</p> <p>Did your first marriage end in widowhood or divorce?</p> <p>(Widowhood / Divorce)</p> <p>1 = either A1PB17 = Divorced OR A1PB20 = (2) Divorce</p>	Yes

		-1 = all other responses	
Never Married	coded as binary (-1/1), with 1 indicating the respondent never reported being married over the course of the study period (1992-2008) and -1 indicating the respondent had ever been married.	A1PB17 Are you married, separated, divorced, widowed, or never married? 1 = Never married -1 = Married, Separated, Divorced, Widowed	Yes
Lower Positive Interactions with Children	(i) How much do they really understand the way you feel about things; (ii) How much can you rely on them if you have a serious problem; and (iii) How much can you open up to them if you need to talk about your worries.	No item from MIDUS could be harmonized with the HRS items	<i>No</i>
Negative Interactions with Children	i) How often do they make too many demands on you; (ii) How much do they criticize you; (iii) How much do they let you down when you are counting on	No item from MIDUS could be harmonized with the HRS items	<i>No</i>

	them; and (iv) How much do they get on your nerves		
Lower Positive Interactions with Family	(i) How much do they really understand the way you feel about things; (ii) How much can you rely on them if you have a serious problem; and (iii) How much can you open up to them if you need to talk about your worries.	A1SKINPO: Support from family Reverse coded and z-scored	Yes
Negative Interactions with Family	i) How often do they make too many demands on you; (ii) How much do they criticize you; (iii) How much do they let you down when you are counting on them; and (iv) How much do they get on your nerves	A1SKINNE Strain from family Z-scored	Yes
Lower Positive Interactions with Friends	(i) How much do they really understand the way you feel about things; (ii) How much can you rely on them if you have a serious problem; and (iii) How	A1SFDSPO Support from Friends Reverse coded and z-scored	Yes

	much can you open up to them if you need to talk about your worries.		
Negative Interactions with Friends	i) How often do they make too many demands on you; (ii) How much do they criticize you; (iii) How much do they let you down when you are counting on them; and (iv) How much do they get on your nerves	A1SFDSNE Strain from Friends Z-scored	Yes

Adulthood Psychological	HRS	MIDUS	Harmonized?
Lower Agreeableness	(i) Helpful, (ii) Warm, (iii) Caring, (iv) Soft hearted, and (v) Sympathetic	A1SAGREE Agreeableness personality trait Reverse coded and z-scored	Yes
Lower Extroversion	(i) Outgoing, (ii) Friendly, (iii) Lively, (iv) Active, and (v) Talkative	A1SEXTRA Extraversion personality trait Reverse coded and z-scored	Yes
Lower Neuroticism	(i) Moody, (ii) Worrying, (iii) Nervous, and (iv) Calm	A1SNEURO Neuroticism personality trait Reverse coded and z-scored	Yes

Lower Conscientiousness	(i) Organized, (ii) Responsible, (iii) Hardworking, (iv) Careless, and (v) Thorough	A1SCONS Conscientiousness personality trait Reverse coded and z-scored	Yes
Lower Openness to Experiences	(i) Creative, (ii) Imaginative, (iii) Intelligent, (iv) Curious, (v) Broad-minded, (vi) Sophisticated, and (vii) Adventurous	A1SOPEN Openness personality trait Reverse coded and z-scored	Yes
Anger Out	Anger-out is scored by taking the mean across seven items: (i) When I am feeling angry or mad, I argue with others; (ii) When I am feeling angry or mad, I strike out at whatever infuriates me; (iii) When I am feeling angry or mad, I say nasty things; (iv) When I am feeling angry or mad, I lose my temper; (v) I am quick tempered; (vi) I	No item from MIDUS could be harmonized with the HRS items	No

	have a fiery temper; and (vii) I fly off the handle		
Anger In	(i) When I am feeling angry or mad, I keep things in; (ii) When I am feeling angry or mad, I withdraw from people; (iii) When I am feeling angry or mad, I am irritated more than people are aware; and (iv) When I am feeling angry or mad, I am angrier than I am willing to admit	No item from MIDUS could be harmonized with the HRS items	No
Cynical Hostility	(i) Most people dislike putting themselves out to help other people; (ii) Most people will use somewhat unfair means to gain profit or an advantage rather than lose it; (iii) No one cares much what happens to you; (iv) I think most	No item from MIDUS could be harmonized with the HRS items	No

	people would lie in order to get ahead; and (v) I commonly wonder what hidden reasons another person may have for doing something nice for me		
Hopelessness	(i) I feel it is impossible for me to reach the goals that I would like to strive for; (ii) The future seems hopeless to me and I can't believe that things are changing for the better; (iii) I don't expect to get what I really want; and (iv) There's no use in really trying to get something I want because I probably won't get it.	A1SA13D: During the past 30 days, how much of the time did you feel hopeless? 5 = All the time 4 = Most of the time 3 = Some of the time 2 = A little of the time 1 = None of the time Z-scored	Yes
Loneliness	Loneliness Scale (9) which contained a 3-item scale rated on a 3-point ordered response scale (1	No item from MIDUS could be harmonized with the HRS items	No

	= Often, 2 = Some of the time, 3 = Hardly ever or never). Loneliness was scored by taking the mean response across three items: (i) You lack companionship; (ii) Left out; and (iii) Isolated from others		
Lower Life Satisfaction	Diener's measure of life satisfaction (10), a well-established measure of self-evaluated life quality that has been used extensively in international comparative studies. Diener's measure is a 5-item scale rated on a 7 point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly	A1PD1: At present, how satisfied are you with your life? 4 = Not at all 3 = A little 2 = Somewhat 1 = A lot Z-scored	Yes

	<p>agree, 6 = Somewhat agree, 7 = Strongly agree). Note, in 2006, a 6 point Likert scale was used (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree). Life satisfaction is scored by taking the mean across five items:</p> <ul style="list-style-type: none"> (i) In most ways my life is close to ideal; (ii) The conditions of my life are excellent; (iii) I am satisfied with my life; (iv) So far, I have gotten the important things I want in life (v) If I could live my life again, I would change almost nothing 		
--	---	--	--

Lower Optimism	Optimism was scored as the mean response score to the items: (i) I'm always optimistic about my future; (ii) In uncertain times, I usually expect the best; and (iii) Overall, I expect more good things to happen to me than bad	A1PD7 For the final set of questions, please tell me how much each of the following describes you. Optimistic 4 = Not at all 3 = A little 2 = Somewhat 1 = A lot Z-scored	Yes
Pessimism	Pessimism was scored by taking the mean response to three items: (i) If something can go wrong for me it will; (ii) I hardly ever expect things to go my way; and (iii) I rarely count on good things happening to me	No item from MIDUS could be harmonized with the HRS items	No
Lower Positive Affectivity	(i) cheerful; (ii) in good spirits; (iii) extremely happy; (iv) calm and peaceful; (v) satisfied; and (vi) full of life.	A1SPOSAF Positive affect Reverse coded and z-scored	Yes

Negative Affectivity	(i) so depressed that nothing could cheer you up; (ii) hopeless; (iii) restless or fidgety; (iv) that everything was an effort; (v) worthless; and (vi) nervous	A1SNEGAF Negative affect Z-scored	Yes
Lower Purpose in Life	(i) I enjoy making plans for the future and working to make them a reality; (ii) My daily activities often seem trivial and unimportant to me; (iii) I am an active person in carrying out the plans I set for myself; (iv) I don't have a good sense of what it is I'm trying to accomplish in life; (v) I sometimes feel as if I've done all there is to do in life; (vi) I live life one day at a time and don't really think about the future; (vii) I have a	A1SPWBU Purpose in life (psychological well-being 3-item) Reverse coded and z-scored	Yes

	sense of direction and purpose in my life		
Lower Religiosity	<p>measured with Fetzer Institute's (15) 4-item scale rated on a 6 point Likert scale (1=Strongly Disagree; 2 = Somewhat Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Somewhat Agree; 6 = Strongly Agree). Religiosity is scored by taking the mean across four items:</p> <ul style="list-style-type: none"> (i) I believe in a God who watches over me; (ii) The events in my life unfold according to a divine or greater plan; (iii) I try hard to carry my religious beliefs over into all my other dealings in life; (iv) I find strength and comfort in my religion 	<p>A1SR2A How religious are you? 4 = Not at all 3 = A little 2 = Somewhat 1 = A lot z-scored</p>	Yes

Perceptions of Obstacles	(i) I often feel helpless in dealing with the problems of life; (ii) Other people determine most of what I can and cannot do; (iii) What happens in my life is often beyond my control; (iv) I have little control over the things that happen to me; and (v) There is really no way I can solve the problems I have.	No item from MIDUS could be harmonized with the HRS items	No
Lower Sense of Mastery	(i) I can do just about anything I really set my mind to; (ii) When I really want to do something, I usually find a way to succeed at it; (iii) Whether or not I am able to get what I want is in my own hands; (iv) What happens to me in the future mostly	A1SPWBE Environmental mastery (psychological well-being 3-item) <i>Numerical</i>	Yes

	depends on me; and (v) I can do the things that I want to do		
Trait Anxiety	(i) I had fear of the worst happening; (ii) I was nervous; (iii) I felt my hands trembling; (iv) I had a fear of dying; and (v) I felt faint	No item from MIDUS could be harmonized with the HRS items	No

Adulthood Adverse Experiences	HRS	MIDUS	Harmonized?
Adulthood Psychosocial Adversity	is a composite measure scored by summing the binary (0/1) responses to whether the respondent had experienced, at any age after 17, (i) the death of a child, (ii) a natural disaster, (iii) fired a weapon in combat, (iv) a partner addicted to drugs or alcohol, (v) being victim of a physical attack, and (vi) a spouse or child with a serious illness	No item from MIDUS could be harmonized with the HRS items	No

Daily Discrimination	(i) You are treated with less courtesy or respect than other people; (ii) You receive poorer service than other people at restaurants or stores; (iii) People act as if they think you are not smart; (iv) People act as if they are afraid of you; and (v) You are threatened or harassed. In 2008, a sixth item was included to give more adult-relevant context: (vi) You receive poorer service or treatment than other people from doctors or hospitals.	i) A1SS14A / A1SS14B ii) A1SS14C iii) A1SS14D iv) A1SS14E v) A1SS14I vi) NA For each item: 4 = Often 3 = Sometimes 2 = Rarely 1 = Never Scores summed then z-scored	Yes
Major Discrimination	(i) At any time in your life, have you ever been unfairly dismissed from a job; (ii) For unfair reasons, have you ever not been hired for a job, (iii) Have you ever been unfairly denied a promotion; (iv) Have you ever been	i) A1SS13E ii) A1SS13C iii) A1SS13D iv) A1SS13F v) A1SS13I vi) A1SS13H (Hassled by police) vii) NA	Yes

	<p>unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment;</p> <p>(v) Have you ever been unfairly denied a bank loan; and (vi) Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police. In 2008, an additional item was added to measure: (vii) Have you ever been unfairly denied health care or treatment</p>	<p>Each item z-scored then summed</p>	
--	---	---------------------------------------	--

Table S8. Hazard Ratios and Confidence Intervals for HRS and MIDUS Harmonized Variables, Listed in the Order of HRS Rankings of the Included Variables.

Variables	HRS		MIDUS	
	HR	95% CI	HR	95% CI
Current Smoker	1.84	1.73, 1.95	1.44	1.29, 1.61
History of Divorce	1.44	1.37, 1.52	1.19	1.06, 1.34
History of Smoking	1.32	1.27, 1.38	1.57	1.38, 1.77
History of Unemployment	1.32	1.27, 1.45	1.30	0.96, 1.74
Alcohol Abuse	1.32	1.21, 1.44	1.30	0.97, 1.74
Recent Financial Difficulties	1.29	1.24, 1.35	1.22	1.09, 1.37
Lower Life Satisfaction	1.28	1.22, 1.35	1.22	1.11, 1.34
Negative Interactions with Family	1.21	1.15, 1.26	1.13	1.00, 1.27
Never Married	1.21	1.05, 1.39	1.08	0.87, 1.35
Negative Affectivity	1.20	1.16, 1.25	1.35	1.23, 1.48
Daily Discrimination	1.18	1.13, 1.24	1.12	1.00, 1.26
History of Medicaid	1.16	1.09, 1.22	1.00	0.85, 1.18
Low/No Vigorous Activity	1.15	1.09, 1.22	1.32	1.17, 1.48
Negative Interactions with Friends	1.14	1.10, 1.19	1.15	1.03, 1.28
Lower Occupational Status	1.14	1.08, 1.19	1.13	1.02, 1.25
Low/No Moderate Activity	1.13	1.09, 1.18	1.27	1.14, 1.41
Hopelessness	1.13	1.09, 1.17	1.35	1.22, 1.50
Lower Positive Affectivity	1.12	1.07, 1.16	1.18	1.04, 1.33
Lower Neighborhood Cohesion	1.12	1.07, 1.16	1.22	1.09, 1.36
Lower Optimism	1.11	1.07, 1.15	1.16	1.04, 1.28
Major Discrimination	1.11	1.06, 1.16	1.02	0.98, 1.07
Lower Positive Interactions with Family	1.10	1.06, 1.15	1.19	1.07, 1.33
Lower Wealth	1.10	1.02, 1.18	1.25	1.13, 1.38
Lower Purpose in Life	1.10	1.05, 1.14	1.16	1.06, 1.28
Sleep Problems	1.09	1.05, 1.14	1.13	1.03, 1.25
Lower Conscientiousness	1.09	1.05, 1.13	1.16	1.04, 1.29
Lower Education	1.09	1.04, 1.13	1.16	1.05, 1.28
Lower Income	1.08	0.97, 1.20	1.22	1.04, 1.42
Lower Neuroticism	1.08	1.04, 1.12	0.87	0.77, 0.97
History of Renting	1.07	1.02, 1.12	1.32	1.15, 1.54
Lower Extroversion	1.07	1.02, 1.11	1.09	0.98, 1.21

Lower Father Occupational Status	1.06	1.02, 1.10		1.11	0.99, 1.25
Lower Sense of Mastery	1.06	1.02, 1.10		1.18	1.06, 1.30
Lower Openness to Experiences	1.02	0.98, 1.06		0.96	0.86, 1.07
Lower Religiosity	0.99	0.95, 1.03		1.16	1.04, 1.30
Lower Education Father	0.99	0.93, 1.05		1.03	0.91, 1.16
Lower Positive Interactions with Friends	0.97	0.93, 1.01		1.15	1.03, 1.27
Lower Agreeableness	0.957	0.92, 0.99		0.95	0.85, 1.06
Lower Education Mother	0.88	0.83, 0.93		1.03	0.91, 1.16

Table S9. Cronbach's alpha for each Social Support variable

	Children		Family		Friends	
	Positive	Negative	Positive	Negative	Positive	Negative
2006	.83	.78	.86	.78	.84	.76
2008	.82	.78	.86	.78	.83	.76