# DOES ILL HEALTH AFFECT SAVINGS INTENTIONS?

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# Does ill health affect savings intentions? Evidence from SHARE

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**Abstract:** *This paper uses data from SHARE 2004 to analyze one possible causal pathway of the health-wealth gradient, namely differences in the marginal propensity to save and spend across different health states. Conditional on age and current wealth, I find weak relationships between health and the intended use of a hypothetical windfall gift as well bequest expectations. The overall effect of health on wealth through this link is positive but very small.*

**JEL-Code:** I12, J14

**Keywords:** Socio-economic differences in health, Savings, Bequest expectations

## 1. Introduction

A strong relationship between socio-economic status and health has been documented in numerous studies: Better educated individuals are healthier than less educated, individuals with high income are healthier than those with low income, employees at the top end of the occupational hierarchy are healthier than those working at the bottom end of the hierarchy, and wealthy individuals are healthier than poor individuals. The relationship is so ubiquitous that is often simply referred to as "the" gradient (Deaton, 2003). While the existence of the health-wealth gradient is universally acknowledged, its underlying causal mechanisms are still not well understood. The epidemiological literature tends to view socio-economic status as the antecedent, while economists study the direction of causation in both ways: how bad health affects the accumulation of wealth, and how being wealthy increases the likelihood of being healthy (see Smith, 1999, for an overview).

Bad health affects income and wealth because it limits the ability to work, earn income and hence the ability to save out of earned income. Individuals in bad health are likely to retire earlier – e.g. on disability pensions – and they have less time to accumulate wealth than others. Given the same income, people in bad health might be able to save less because they are more likely to cover out-of-pocket expenses for their health. They might also want to save less for old-age because they have a lower life expectancy. But bad health can also increase the propensity to save, for example if a health shock increases the likelihood of future out-of-pocket health expenses, or if a health shock increases the uncertainty about future income flows (precautionary savings motive). Some households might also decrease current or planned future transfers to children or other beneficiaries. Further, health is likely to affect the marginal utility of non-medical consumption, although it is not clear in which direction. Casual observation of spending patterns of sick or disabled persons suggests that negative health shocks decrease the marginal utility of consumption. This view is supported by

experimental evidence (Viscusi and Evans, 1990). However, Lillard and Weiss (1997), using U.S. PSID data, analyze the effect of health on saving and consumption decisions of retirees and find substantial reductions in accumulated wealth among individuals in poor health, implying that their marginal utility of consumption is higher.

The aim of the present paper is to study the relationship between health and the propensity to save and spend using data from the 2004 Survey of Health, Ageing and Retirement in Europe. Since the data are currently cross-sectional (they are in fact the first wave of a panel survey), it is not possible to look at actual saving behavior, for instance measured as wealth changes between waves. Instead, I look at hypothetical saving spending patterns, specifically the respondents' answers to the question how they would use a large windfall gift of €12,000: save, spend, or give or donate. In addition, I look at the effect of health on bequest expectations – conditional on current wealth. This gives an idea about how health affects future saving and expenditure plans. The analysis presented below is primarily descriptive, but it provides some interesting results. Very little is yet known about how health affects saving and spending patterns at older ages in European countries.

## 2. Data description and measurements

The data are drawn from Release 1 of the 2004 Survey of Health, Aging and Retirement in Europe (SHARE). SHARE is financed by the European Commission and the National Institute on Aging (NIA) – for detailed information see Börsch-Supan et al. (2005) and Börsch-Supan and Jürges (2005). SHARE is modeled closely after the US Health and Retirement Study (HRS) and it is the first European data set to combine extensive information on physical and mental health with information on the income and assets of the elderly population. The data contain information on some 23,000 respondents aged 50 and older from 15,000 households in 10 European countries (Sweden, Denmark, Germany, the Netherlands,

France, Switzerland, Austria, Italy, Spain, and Greece – further data are currently being collected in Belgium and Israel). Probability samples have been drawn in each participating country. Table 1 gives a broad description of the SHARE sample, by country and age group.

<about here Table 1>

*Health.* The data contain a large amount of information on the respondents' health. SHARE asks for self-reported general health, diagnosed chronic conditions, symptoms, functional limitations, difficulties with activities of daily living (ADLs) and instrumental activities of daily living (IADLs). Additionally, SHARE contains health measurements such as hand grip strength (for all respondents) and walking speed (for respondents with self-reported mobility limitations and all respondents aged 75 and over). I combine all available health information in a single 0-to-1 health index, where 0 represents the worst observed health state ("near death") and 1 represents "perfect" health (see Jürges, 2005). Health states between near death and perfect health are given an index value between 0 and 1. The computed health index will be used as a proxy for true health. The very basis of any health index is comprehensive objective information about health problems: self reported diagnosed chronic conditions, mental illnesses, symptoms (especially pain), or functional limitations. If available, one also uses medical records, and measurements and tests like blood samples, grip strength, balance, gait speed, etc. The absence of any conditions, symptoms, or limitations, implies perfect health, i.e. an index value of 1. The presence of a condition reduces the health index by some given amount or percentage, the so-called disability weight. The disability weight of each condition or symptom is assumed to be the same for each respondent.

Disability weights are often derived by expert judgements or surveys specialized to elicit health preferences, using time trade-off or standard gambles (see Torrance, 1986, for an

overview). Here, we will compute disability weights from within the SHARE sample (Cutler and Richardson, 1997; Groot 2000) by estimating generalized ordered probit regressions of self-reported health on a large number of variables representing chronic conditions, symptoms, ADL problems, physical functioning, height, weight, and cognitive functioning. I also included measurements of hand grip strength and walking speed. The health index is computed as the linear prediction from this regression (the latent variable), normalized to 0 for the worst observed health state and 1 for the best observed health state. This procedure implies disability weights for each condition or impairment that are equal to the respective (also normalized) regression parameters. Table 2, column (1) shows the average health index by country. In terms of this index, Switzerland is the healthiest country and Spain is the least healthy country. Switzerland and Spain are also the countries with the smallest and largest "pure" inequality in health (as measured by the interquartile range of the health index, see column (2)).

<about here Table 2>

*Total household net worth.* SHARE contains detailed information on financial and real household assets. Total household wealth is computed as the sum of all assets combined minus debt. As other surveys, the SHARE raw data contain missing information on wealth. While non-response on asset ownership is a minor problem, asset values are notorious for item non-response. Following HRS and ELSA, SHARE has used so-called unfolding brackets (with three randomly chosen entry points) to elicit information from respondents who are unwilling or unable to answer questions for the value of their assets (see Juster and Smith, 1997, and Hurd, 1998, for methodological issues). Missing values are then imputed five times conditional on the bracket value using hotdeck imputation (for details see Christellis, Jappelli,

and Padula, 2005). To account for the uncertainty inherent in imputation, SHARE follows a multiple imputation strategy as suggested e.g. in Rubin and Schenker (1986), Rubin (1987), or Little (1988).

Table 2, column (3) shows, by country, median wealth holdings in Euro and the health-wealth "gradient" (measured as the difference in the average health index of individuals with household income below and above the country-specific wealth median, see (column (4)). Median wealth is largest in Switzerland and smallest in Greece. The wealth-health gradient, in turn, is steepest in Greece and flattest Switzerland. All gradients are statistically different from zero, i.e. inequalities in health favor those who are better off financially in all SHARE countries.

*The marginal propensity to save and spend.* The marginal propensity to save and spend is measured by the respondents' answers to the following hypothetical question*: Imagine you received an unexpected gift of 12,000 Euro. Please look at Card 38. What would you use this money for?* Showcard 38 contains 5 different items:

1. Saving or investment
2. Pay off debt
3. Give to relatives or donations
4. Buy durable item (house, car, furniture, large electrical appliances,...)
5. Make a holiday trip or journey

The respondent was then asked for each of item separately if he would use any money for it. If he said yes, he was asked how much he would use. The sequence continued as long as there was money left to spend. If the respondent had not spent the full €12,000 at the end of the sequence, the remainder was coded as "6. Other purposes". For the rest of the paper, the six categories are collapsed into three: 1. Saving and repaying debt, 2. Giving to relatives or donating, and 3. Spending (on durables and travel plus any residual amount).

<Table 3 about here>

Table 3 shows summary statistics for the expenditure plan data. The most important category is saving and investing. 59.5% of all respondents say they would save at least some part of the hypothetical gift (or repay debt). The average amount saved, conditional on saving, is €8,074 and the unconditional average is €4,807 or 40.1% of the total amount. Spending the money and giving it away to relatives are about equally important: 51.7% of the sample say they would give part of the money to relatives or donate it, and 50.6% of the total sample say they would spend at least part of the money. The average amount, conditional and total is somewhat larger for spending than for giving.

*Bequest expectations.* Bequest expectations are asked in a two-stage sequence. The first question asks for the subjective probability of leaving a bequest in excess of €50,000. If the subjective probability is zero, then respondents are asked the chances of leaving any bequest at all. If the subjective probability in the first stage is larger than zero, respondents are asked the chances of leaving €150,000 or more. Table 4 shows the average chance of leaving a bequest in excess of €50,000 and €150,000, respectively, by levels of household wealth. The average subjective probability of leaving more than €50,000 is 49.6%, and the average subjective probability of leaving more than €150,000 is 27.5%. Obviously, these numbers depend very much on current wealth levels. For instance, among those with current net worth below €50,000, the chances of leaving at least €50,000 are 18.4%, in contrast to 56.4% among respondents with net worth between €50,000 and €150,000 and 74.2% among those with current net worth larger than €150,000.

<Table 4 about here>

## 3. Results

We now address the question how hypothetical or expected expenditure and savings patterns relate to the respondents' health. Are healthy respondents more or less likely to save? Do they report to save larger amounts than less healthy respondents? Are they more or less likely to expect to leave a bequest? If, for instance, individuals in bad health have a higher marginal utility of consumption (Lillard and Weiss, 1997), then they should be less willing to save from the hypothetical gift of €12,000 and they should want to save less of it. Skeptics might be inclined to criticize hypothetical expenditures data as a limited measure of what the respondents would actually do. However, the data are "well behaved" in many respects, i.e. they show expected relationship to key variables, such as age, family composition, and financial well-being. It is difficult to see why the relationship between the hypothetical expenditure plans and health should be less meaningful.

<Table 5 about here>

The top panel of Table 5 contains the unconditional effect of health on the choices to save, give, or spend the hypothetical €12,000 windfall gift. The first column within each category contains the probability to use any amount larger than zero for the respective purpose, the second column contains the probability to use the *entire* sum of €12,000 for the respective purpose, and the third column shows the average amount (in Euro). To account for possible non-linearity, I have categorized the continuous health index into quartiles.

The unconditional health effects on expenditure patterns are quite strong. Respondents in the top health quartile say they would save €5,136 on average, nearly €600 more than those in the bottom quartile. Half of this difference can be found between the first and second health quartile. Respondents in the top health category also say they would spend €4,213 on average,

an increase of more than €1,000 compared to respondents in the bottom health category. In contrast, the amount respondents say they would give to relatives and charities decreases by nearly €2,000 if one moves from the first to the fourth health quartile. Here the proportion of those who say they would give away the entire sum shows a particularly strong decline from 21.1% to 8.6%. Overall, the unconditional results suggest that better health increases the propensity to save from (unexpected) income gains and thus possibly explains larger household net worth. However, the increase in savings is not matched by a lower propensity to spend but rather comes at the expense of private transfers.

Let us now examine how much of the unconditional health effect can be accounted for by other variables, most importantly age and financial status. The bottom panel of Table 5 contains conditional expenditure patterns. These numbers are derived as predicted values from probit regressions of the probability to save at all and save the entire amount, respectively, and from a linear regression of the amount, evaluated at the sample means of all covariates other than health. The full regression results are shown in Table A1 in the Appendix.

Accounting for the effects of age, age squared, sex, the presence of children and grandchildren, self-reported financial situation, and current household wealth leads to a dramatic reduction in the estimated health effects on expenditure patterns. The effect of health on savings intentions is now virtually nonexistent. If at all, one finds a small decrease in the propensity to save at all and in the average savings amount. A look at the detailed results in Table A1 identifies two main reasons: one is the effect of age. Savings intentions decline strongly with age, which is in line with the predictions of the life-cycle model. Since older respondents are also less healthy, the unconditional effect of health on savings plans is for the most part an age effect. The second reason is financial well-being. The more difficult the

financial situation of the household, the higher the propensity to save some or all of the unexpected gift. This is consistent with a precautionary or a buffer stock savings motive.

Conditional on covariates, better health reduces the likelihood of giving at all, giving the entire sum and the average amount given to relatives or charities. Note that this reduction basically takes place when moving from the first to the second health quartile, i.e. those in the bottom health quartile have a higher propensity to give than the rest. In terms of size, the conditional effect of health is much smaller than the unconditional effect, for instance 3.0 compared to 12.5 percentage points for the propensity to transfer the full amount, and less than €400 compared to €1,750 for the average amount. Still, these differences are statistically different from zero.

The decrease in transfers to relatives and charities is matched by a statistically significant increase in the probability to say that one would spend some of the unexpected gift. Again the effect can only be found between the first two health quartiles, meaning that only the least healthy respondents have a systematically different spending pattern than the rest. The effect is again small in size. The likelihood of saying one would spend at least some amount increases by less than 7 percentage points and the average amount one would spend increases only by about €400.

One possible interpretation of these results is that individuals – if in bad health – have indeed a slightly lower marginal utility from consumption. Deteriorating health shifts the reported expenditure plans somewhat away from (some) spending and towards giving (everything) to relatives or charities, while savings remain largely unaffected. Overall, the size of the health effect is rather small.

Compared to the overall effect of health on the propensity to save or spend a windfall gift of €12,000, the effect of some of the control variables is quite sizeable. For instance, at the sample mean of all other variables, a respondent aged 50 has an average probability of

76% of saying he would save some amount, whereas a respondent aged 80 has a 43% probability to do so. At the same time, the propensity to give increases from 39% to 66%. Women have a 4 percentage point higher probability to say they would save, a 5 percentage point lower probability to say they would spend some amount, and a 15 percentage point higher probability to say they would give to relatives or charities. Finally, the probability to save any of windfall gift is 18 percentage points higher if respondents live in a household that has "great difficulty" to make ends meet rather than in a household that gets along "easily". They also have a 14 percentage point lower propensity to transfer money to relatives or charities.

<Table 6 about here>

Let us now turn to bequest expectations. Conditional on current wealth levels and future income streams, the relationship between health and bequest expectations tells us whether respondents in bad health are more or less likely to run down assets in the future. Table 6 shows the average self-reported probability of leaving a bequest worth more than €50,000 and €150,000, respectively. The unconditional average bequest expectations are clearly increasing in health. For instance, respondents in the bottom health quartile say on average that there is a 23.8% chance of leaving a bequest worth more than €150,000, compared to 40.9% in the top health quartile. Conditional on a large set of control variables, including household net worth and a home ownership dummy (to indicate illiquidity of assets), the effect of health remains positive but becomes considerably weaker (detailed regression results are shown in Table A2 in the Appendix). The average chance of leaving a bequest larger than €150,000 rises by only 3% if one moves up from the bottom to the top quartile of the health distribution. As in the case of expenditure plans, the effect is strongest (and statistically significant) at the lower tail of the health distribution. One interpretation of this result is that respondents in bad health have somewhat higher expectations to run down

assets in the future. However, the effect appears to be too small to account for the health-wealth gradient shown in the preceding section.

## 4. Summary and Discussion

This article examines one potential causal pathway between individual health and wealth, namely the idea that health changes saving and spending patterns. The positive correlation between health and wealth could in part be explained if there was a lower propensity to save among less healthy individuals. First, I describe the relationship between health and the propensity of respondents to save and spend from an unexpected (windfall) gift of €12,000. This analysis is based on answers to a hypothetical question. The results suggest that health significantly increases the propensity to transfer money to relatives or charities, significantly reduces the propensity to use the gift for consumption purposes, but does not change savings behavior at all. Moreover, even the significant effects found in the data – after controlling for age, financial status and current wealth levels – are rather weak. They also do not go in a direction that would generate a positive correlation between health and wealth. The assumption that bad health decreases wealth via effects on savings and expenditure patterns is thus not supported by the data. Somewhat contradictory evidence comes from the analysis of bequest expectations. Conditional on current wealth, healthy respondents expect to leave larger bequests, which suggests that they might expect to spend less/save more. However, the size of the measured effect is again fairly small, potentially accounting for a small proportion of the health-wealth correlation only.

The analysis presented here is based on the first wave of a longitudinal survey, which limits the analysis in two important ways. First, one is not yet able to observe changes in health but only different health states. Observing how the behavior of individuals changes in reaction to health shocks is likely to increase our knowledge about the causal effects of health

on expenditure patterns and bequest expectations. Second, the analysis is based on individuals statements about how they would distribute a hypothetical windfall gift among different purposes. When a longitudinal dimension is added to the data it will become possible to study how factual savings, for instance measured as wealth changes between waves, change in response to health shocks.

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**Table 1**: Sample size, by country and age group

| Country | Age 50-64 | Age 65-79 | Age 80+ |
|---|---|---|---|
| Austria | 1,015 | 739 | 172 |
| Germany | 1,610 | 1,135 | 189 |
| Sweden | 1,610 | 1,088 | 298 |
| Netherlands | 1,706 | 927 | 217 |
| Spain | 1,098 | 978 | 291 |
| Italy | 1,366 | 957 | 169 |
| France | 932 | 624 | 179 |
| Denmark | 924 | 522 | 173 |
| Greece | 1,038 | 719 | 204 |
| Switzerland | 512 | 333 | 100 |

Note – SHARE 2004 release 1 (unweighted)

**Table 2:** Summary statistics for health and wealth in SHARE 2004, by country

| Country | (1) Average health index | (2) Health IQR | (3) Median household net worth (in €) | (4) Wealth-Health-Gradient* |
|---|---|---|---|---|
| Austria | 0.814 | 0.160 | 103,634 | 0.042 |
| Germany | 0.808 | 0.169 | 118,800 | 0.047 |
| Sweden | 0.813 | 0.157 | 112,796 | 0.052 |
| Netherlands | 0.826 | 0.144 | 154,425 | 0.056 |
| Spain | 0.761 | 0.220 | 138,606 | 0.036 |
| Italy | 0.785 | 0.186 | 151,660 | 0.049 |
| France | 0.798 | 0.161 | 161,395 | 0.057 |
| Denmark | 0.810 | 0.161 | 120,040 | 0.059 |
| Greece | 0.811 | 0.172 | 95,714 | 0.070 |
| Switzerland | 0.858 | 0.115 | 241,755 | 0.026 |

Note – SHARE 2004 release 1 (unweighted); *Difference in average health of individuals with household net worth above and below the median.

**Table 3**: Summary of hypothetical spending data

| | Percent | Average conditional amount | Average total amount | Percent of total gift |
|---|---|---|---|---|
| Save | 59.5 | 8,084.2 | 4,807.4 | 40.1 |
| Give | 51.7 | 6,496.8 | 3,361.1 | 28.0 |
| Spend | 50.6 | 6,871.6 | 3,831.6 | 31.9 |

**Table 4**: Average bequest expectations, by wealth quintile

| | Inheritance > €50k | Inheritance > €150k |
|---|---|---|
| HH Net Worth < €50k | 18.4 | 6.3 |
| HH Net Worth €50k-€150k | 56.4 | 19.2 |
| HH Net Worth > €150k | 74.2 | 57.1 |
| | | |
| Total | 49.6 | 27.5 |

**Table 5:** Saving, giving, and spending, by health index

| | Save | | | Give | | | Spend | | |
|---|---|---|---|---|---|---|---|---|---|
| | Any | All | Amount | Any | All | Amount | Any | All | Amount |
| | *Unconditional* | | | | | | | | |
| Health Index – Q1 | 0.550 | 0.206 | 4,440 | 0.591 | 0.211 | 4,401 | 0.460 | 0.118 | 3,159 |
| Health Index – Q2 | 0.596 | 0.201 | 4,745 | 0.533 | 0.132 | 3,396 | 0.564 | 0.143 | 3,859 |
| Health Index – Q3 | 0.609 | 0.215 | 4,935 | 0.488 | 0.106 | 2,980 | 0.591 | 0.149 | 4,085 |
| Health Index – Q4 | 0.629 | 0.223 | 5,136 | 0.461 | 0.086 | 2,651 | 0.606 | 0.153 | 4,213 |
| | *Conditional (at sample means of control variables)\** | | | | | | | | |
| Health Index – Q1 | 0.602 | 0.212 | 4,856 | 0.538 | 0.127 | 3,652 | 0.507 | 0.123 | 3,492 |
| Health Index – Q2 | 0.612 | 0.197 | 4,843 | 0.519 | 0.096 | 3,250 | 0.572 | 0.137 | 3,907 |
| Health Index – Q3 | 0.603 | 0.204 | 4,822 | 0.509 | 0.095 | 3,243 | 0.575 | 0.133 | 3,935 |
| Health Index – Q4 | 0.591 | 0.200 | 4,734 | 0.512 | 0.097 | 3,286 | 0.575 | 0.136 | 3,980 |

Notes – higher quartiles mean better health; * Control variables: age, age squared, sex, children dummy, grandchildren dummy, education, self-reported financial situation, wealth quartile.

**Table 6:** Bequest expectations, by health index

| | Unconditional | | Conditional\* | |
|---|---|---|---|---|
| | > €50k | > €150k | > €50k | > €150k |
| Health Index – Q1 | 43.3 | 23.8 | 51.4 | 31.8 |
| Health Index – Q2 | 55.4 | 33.5 | 54.5 | 33.4 |
| Health Index – Q3 | 59.6 | 38.0 | 55.5 | 34.0 |
| Health Index – Q4 | 60.9 | 40.9 | 55.1 | 34.8 |

Notes – higher quartiles mean better health; * Control variables: age, age squared, sex, marital status, children dummy, grandchildren dummy, education, self-reported financial situation, home ownership, household net worth.

**Table A1:** Probit and OLS-Models of Saving, Spending, and Giving Intentions

| | Save | | | Give | | | Spend | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lower bound | Upper bound | Amount | Lower bound | Upper bound | Amount | Lower bound | Upper bound | Amount |
| Health Index – Q2 | 0.038 | -0.012 | 0.090 | -0.023 | -0.087** | -0.230** | 0.081** | -0.022 | 0.140 |
| | (0.026) | (0.030) | (0.095) | (0.027) | (0.032) | (0.081) | (0.026) | (0.033) | (0.088) |
| Health Index – Q3 | 0.037 | 0.007 | 0.108 | -0.038 | -0.164** | -0.311** | 0.114** | -0.020 | 0.203* |
| | (0.027) | (0.030) | (0.097) | (0.027) | (0.035) | (0.083) | (0.027) | (0.033) | (0.090) |
| Health Index – Q4 | 0.013 | -0.035 | -0.029 | -0.039 | -0.128** | -0.274** | 0.135** | 0.002 | 0.303** |
| | (0.029) | (0.032) | (0.104) | (0.029) | (0.038) | (0.089) | (0.029) | (0.035) | (0.096) |
| Age | -0.054** | -0.052** | -0.242** | 0.017 | 0.026 | -0.069 | 0.093** | 0.083** | 0.310** |
| | (0.012) | (0.013) | (0.042) | (0.012) | (0.015) | (0.036) | (0.012) | (0.015) | (0.039) |
| Agesq / 100 | 0.019* | 0.032** | 0.116** | 0.005 | 0.010 | 0.139** | -0.081** | -0.064** | -0.255** |
| | (0.009) | (0.010) | (0.031) | (0.009) | (0.011) | (0.027) | (0.009) | (0.011) | (0.029) |
| Female | -0.117** | -0.300** | -0.839** | 0.382** | 0.160** | 0.895** | 0.088** | -0.128** | -0.055 |
| | (0.019) | (0.021) | (0.067) | (0.019) | (0.025) | (0.057) | (0.018) | (0.023) | (0.062) |
| Children | -0.089** | -0.058 | -0.349** | 0.447** | 0.401** | 1.275** | -0.199** | -0.256** | -0.926** |
| | (0.034) | (0.035) | (0.118) | (0.034) | (0.053) | (0.101) | (0.033) | (0.037) | (0.109) |
| Grandchildren | -0.055* | -0.113** | -0.352** | 0.220** | 0.199** | 0.844** | -0.101** | -0.186** | -0.492** |
| | (0.024) | (0.026) | (0.086) | (0.024) | (0.034) | (0.074) | (0.024) | (0.029) | (0.079) |
| Low education[a] | 0.007 | 0.088** | 0.142 | 0.022 | 0.070* | 0.166* | -0.122** | -0.050 | -0.308** |
| | (0.024) | (0.027) | (0.085) | (0.024) | (0.032) | (0.073) | (0.024) | (0.029) | (0.079) |
| High education | -0.059* | 0.052 | -0.117 | 0.040 | 0.076* | 0.117 | -0.045 | 0.018 | 0.000 |
| | (0.028) | (0.031) | (0.099) | (0.027) | (0.039) | (0.085) | (0.027) | (0.033) | (0.091) |
| Make ends meet: great difficulty[b] | 0.475** | 0.205** | 1.455** | -0.314** | -0.513** | -1.367** | 0.084* | -0.111* | -0.088 |
| | (0.037) | (0.040) | (0.132) | (0.037) | (0.049) | (0.113) | (0.036) | (0.046) | (0.122) |
| Make ends meet some difficulty | 0.328** | 0.096** | 0.951** | -0.192** | -0.366** | -0.949** | 0.091** | -0.078* | -0.002 |
| | (0.027) | (0.030) | (0.098) | (0.027) | (0.036) | (0.084) | (0.027) | (0.034) | (0.091) |
| Make ends meet fairly easily | 0.200** | 0.008 | 0.489** | -0.115** | -0.268** | -0.629** | 0.126** | -0.010 | 0.140 |
| | (0.023) | (0.027) | (0.084) | (0.024) | (0.031) | (0.072) | (0.023) | (0.028) | (0.078) |
| Household Net WorthQ2[c] | 0.088** | -0.009 | 0.194* | -0.031 | -0.133** | -0.235** | 0.068* | -0.026 | 0.041 |
| | (0.029) | (0.031) | (0.098) | (0.028) | (0.038) | (0.082) | (0.028) | (0.036) | (0.093) |
| Household Net Worth Q3 | 0.047 | 0.069* | 0.234* | -0.028 | -0.046 | -0.119 | -0.025 | -0.034 | -0.115 |
| | (0.026) | (0.031) | (0.102) | (0.029) | (0.040) | (0.097) | (0.030) | (0.035) | (0.109) |
| Household Net Worth Q4 | -0.016 | 0.045 | 0.078 | 0.005 | -0.057 | -0.077 | 0.001 | 0.008 | -0.001 |
| | (0.033) | (0.030) | (0.107) | (0.027) | (0.036) | (0.086) | (0.028) | (0.041) | (0.108) |
| Country dummies | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Constant | 2.960** | 1.809** | 9.308** | -1.814** | -3.136** | -3.872* | -3.030** | -3.483** | 1.436 |
| | (0.411) | (0.448) | (1.447) | (0.411) | (0.543) | (1.909) | (0.411) | (0.514) | (1.746) |
| N | 20,202 | 20,202 | 7,603 | 20,202 | 20,202 | 10,325 | 20,202 | 20,202 | 11,209 |

Note – Standard errors in parentheses; $+ p < .10$; $* p < .05$; $** p < .01$; a) Reference category: medium education; b) Reference category: very easily; c) Reference category: 1st wealth quartile.

**Table A2:** Linear regression of bequest expectations on health, controlling for covariates

| | Inheritance > €50k | Inheritance > €150k |
|---|---|---|
| Health Index – Q2 | 3.135** | 1.508 |
| | (0.881) | (0.874) |
| Health Index – Q3 | 4.043** | 2.200* |
| | (0.920) | (0.885) |
| Health Index – Q4 | 3.666** | 2.948** |
| | (0.945) | (0.959) |
| Age | 0.415 | 0.485 |
| | (0.378) | (0.374) |
| Age squared / 100 | -0.258 | -0.342 |
| | (0.278) | (0.274) |
| Sex | -0.884 | 0.369 |
| | (0.616) | (0.620) |
| Married | 0.227 | 0.413 |
| | (0.320) | (0.313) |
| Children | 4.240** | 5.332** |
| | (1.068) | (1.038) |
| Grandchildren | -1.189 | -2.483** |
| | (0.792) | (0.769) |
| Low education[a] | -4.235** | -5.037** |
| | (0.793) | (0.786) |
| High education | 1.711 | 3.050** |
| | (0.901) | (0.896) |
| Make ends meet: great difficulty[b] | -13.932** | -14.124** |
| | (1.233) | (1.210) |
| Make ends meet: some difficulty | -10.900** | -11.904** |
| | (0.920) | (0.897) |
| Make ends meet: fairly easily | -6.729** | -8.201** |
| | (0.784) | (0.767) |
| Home owner | 23.411** | 14.478** |
| | (1.080) | (1.021) |
| HH Net worth €50k-€150k[c] | 25.059** | 3.598** |
| | (1.171) | (1.033) |
| HH Net worth >€150k | 36.634** | 36.015** |
| | (1.235) | (1.123) |
| | | |
| Country dummies | Yes | Yes |
| | | |
| Observations | 19,566 | 19,271 |

Notes - a) Reference category: medium education; b) Reference category: very easily; c) Reference category: HH net worth < €50k

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