Appendices to accompany

Demand for Health Risk Reductions:
A cross-national comparison between the U.S. and Canada

Appendix I: Attitudinal and Subjective Beliefs by Age (moving average of age-wise medians, 5th and 95th percentiles in the raw data)

KEY: solid lines = U.S. sample; dashed lines = Canadian sample

Figure I.1 Subjective risk of Alzheimer's Disease

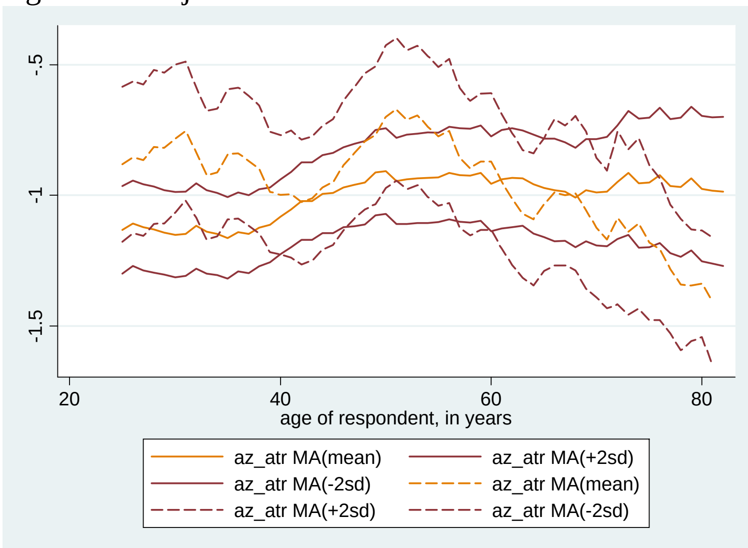


Figure I.2 Subjective risk of Cancer (all cancers grouped)

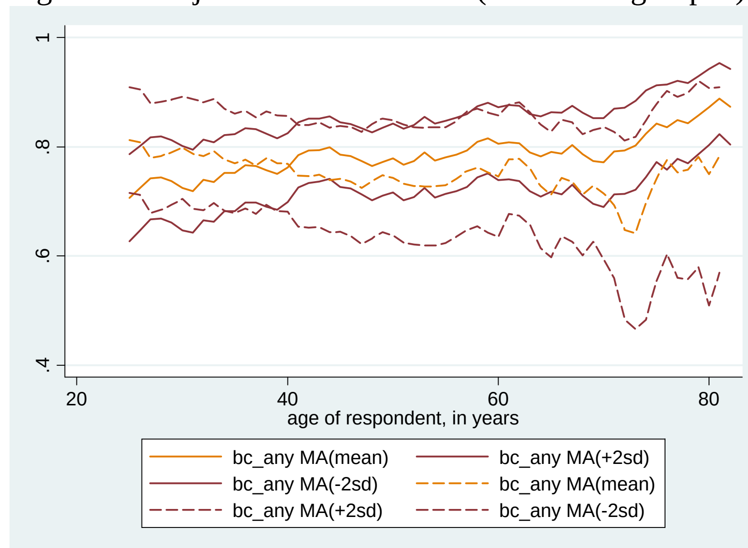


Figure I.3 Subjective risk of Diabetes

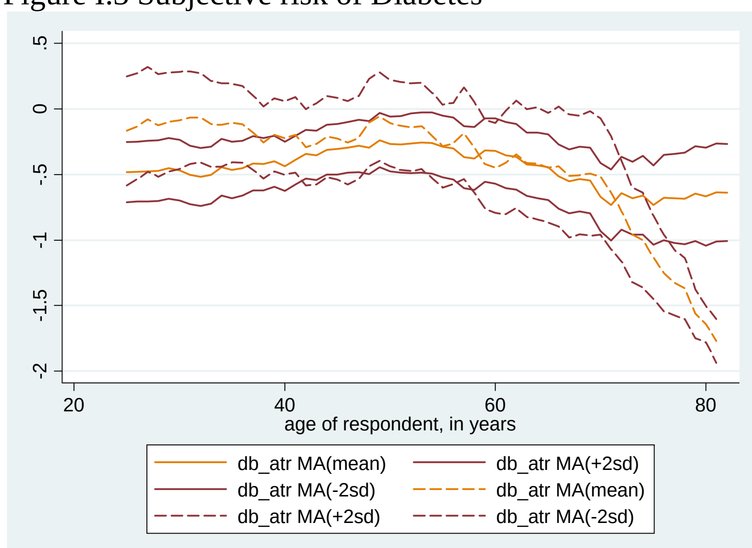


Figure I.4 Subjective risk of Heart Attack/Disease

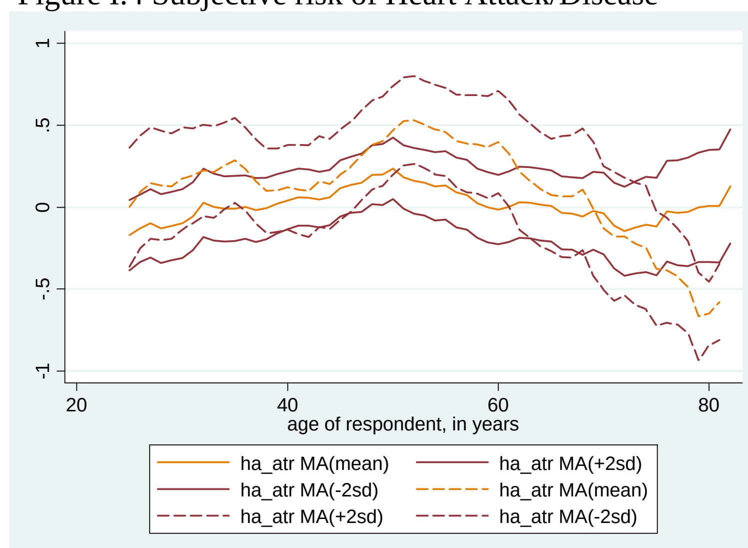


Figure I.5 Subjective risk of Respiratory Disease

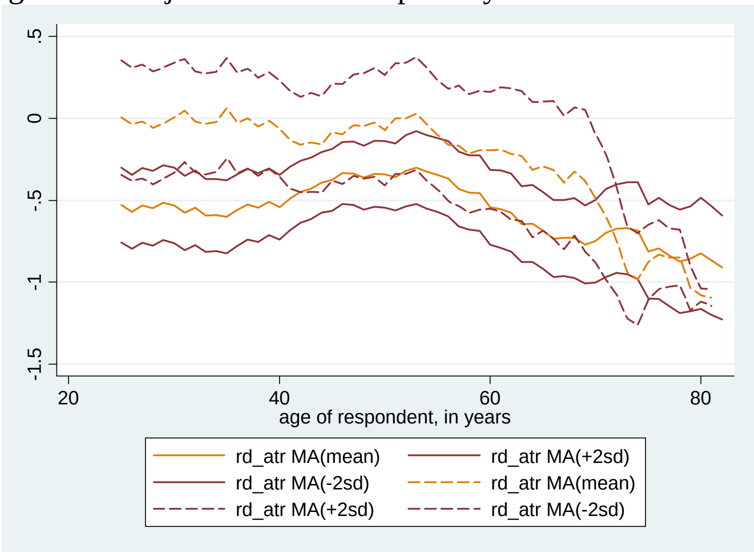


Figure I.6 Subjective risk of Stroke

Figure I.7 Subjective risk of Traffic Accident

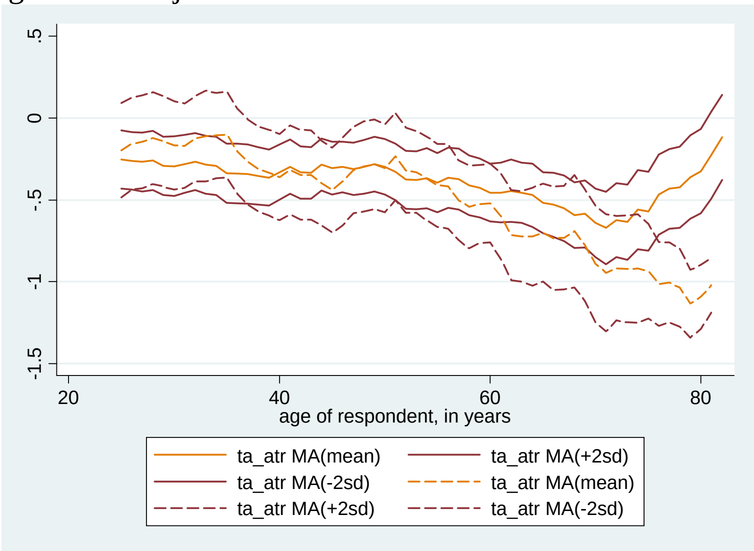


Figure I.8 Room to Improve on Doctor Visits

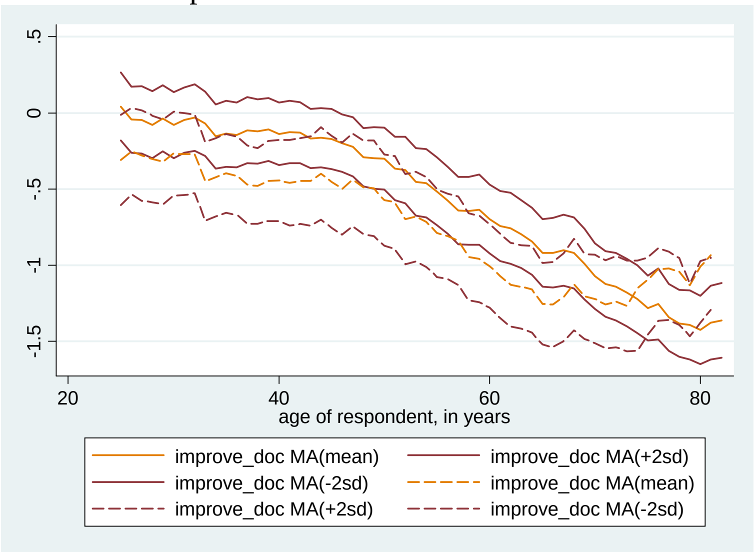


Figure I.9 Room to Improve on Seat Belt Use

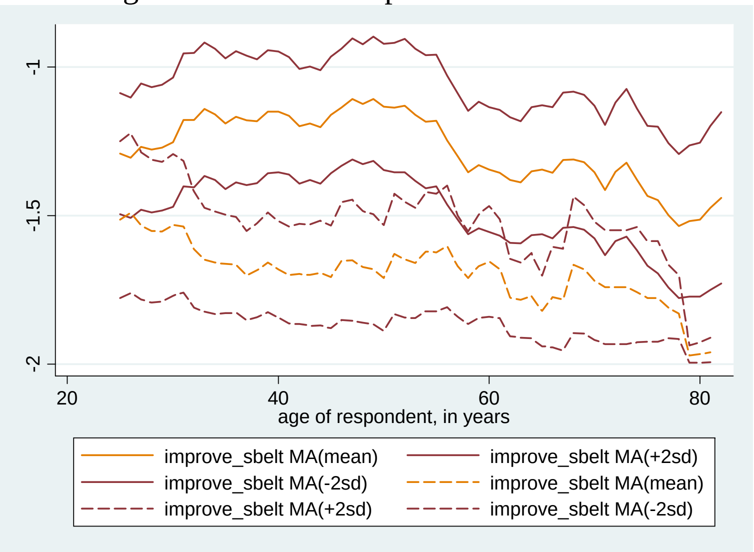


Figure I.10 Room to Improve on Smoking (cut back)

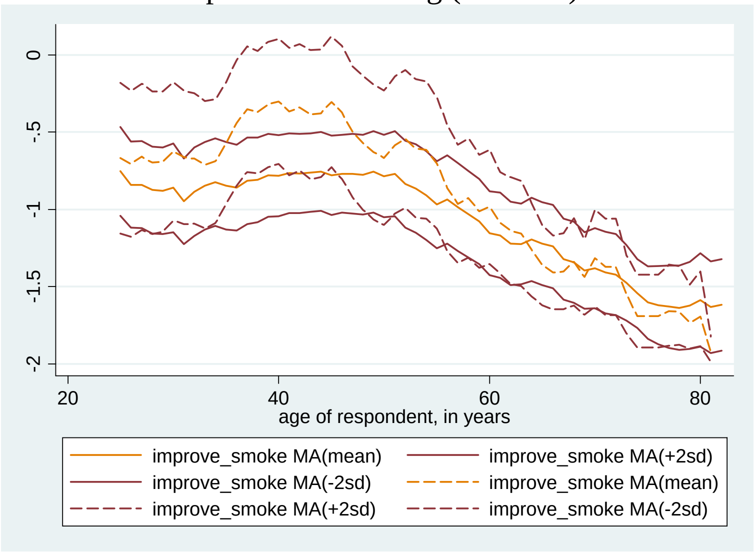


Figure I.11 Room to Improve on Weight (lose weight)

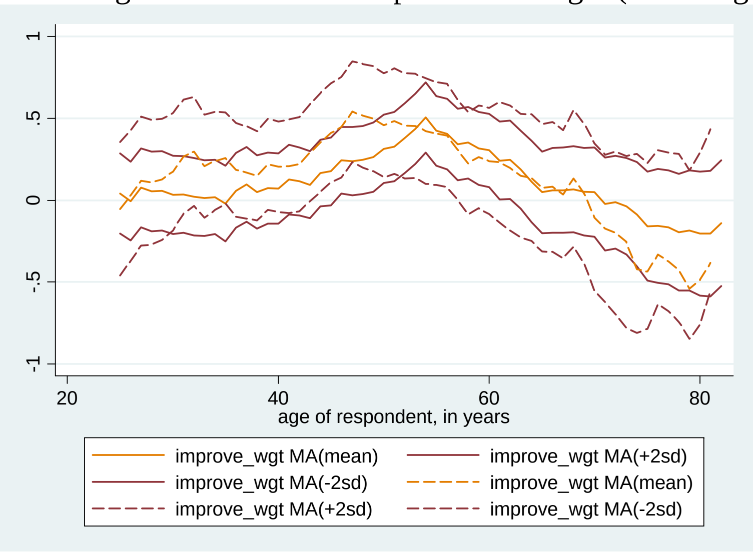


Figure I.12 Room to Improve on Diet (eat healthier)

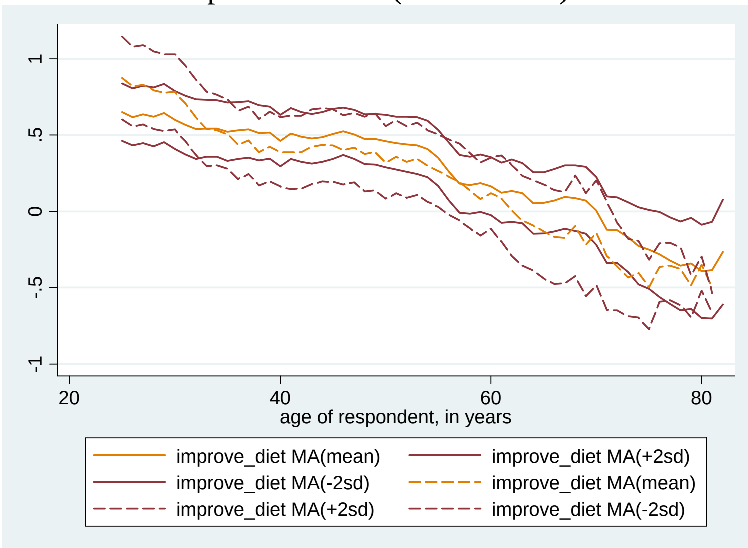


Figure I.13 Room to Improve on Exercise (more)

Figure I.14 Room to Improve on Alcohol (drink less)

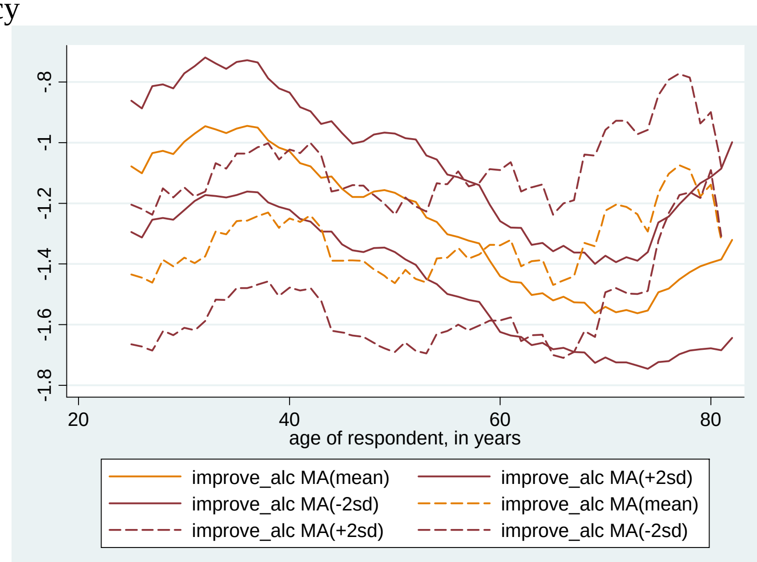
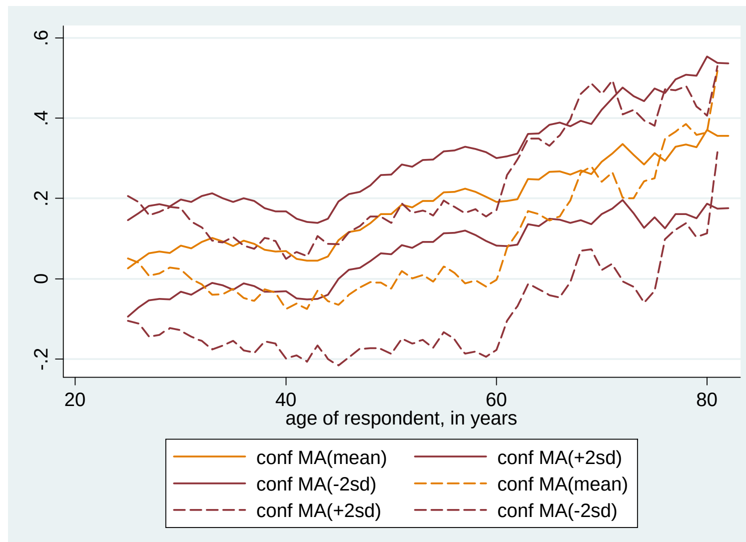


Figure I.15 Confidence in Diagnosis and Treatment Efficacy



Appendix II: Fitted distribution of *WTP* estimates by gender (median, 5th and 95th percentiles; 1000 random draws of parameters)

Figure II.1

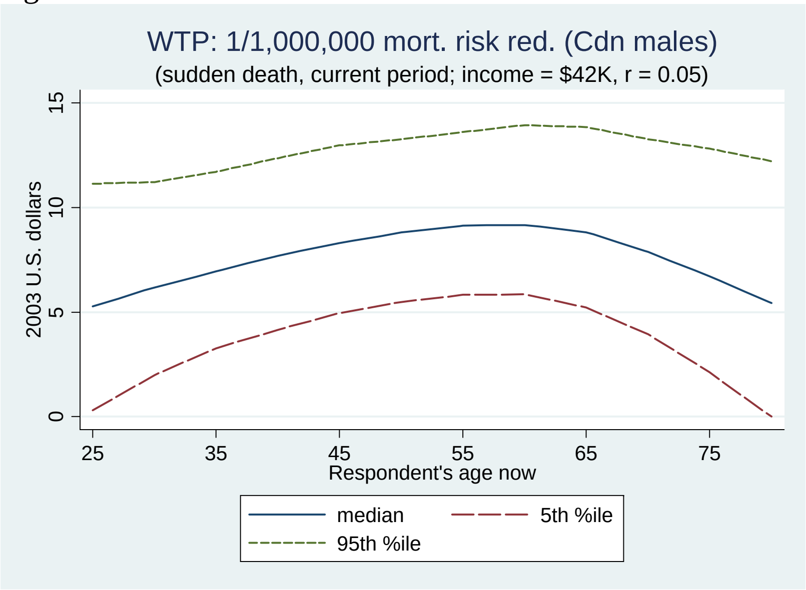


Figure II.2

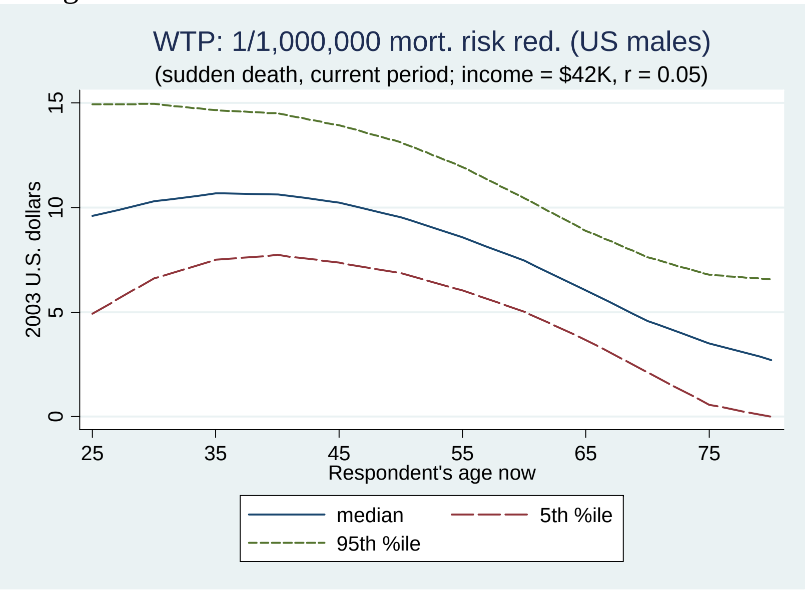


Figure II.3

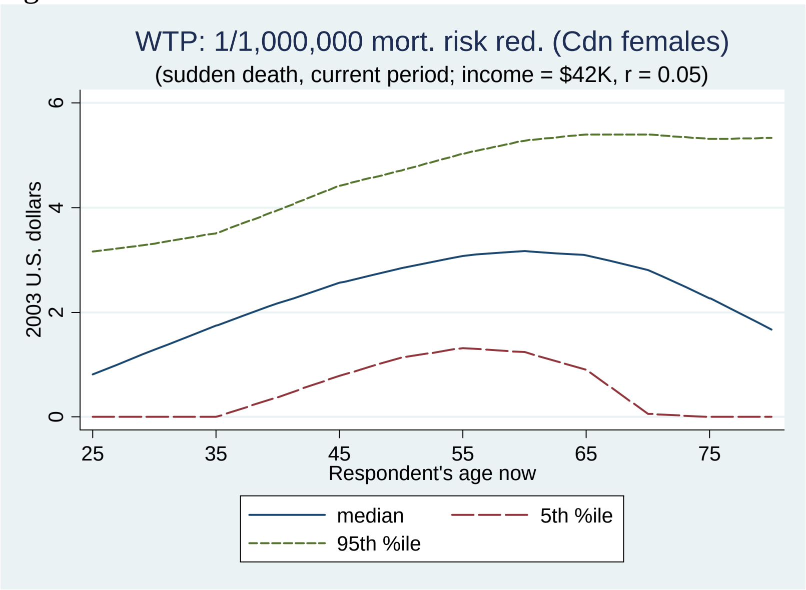


Figure II.4

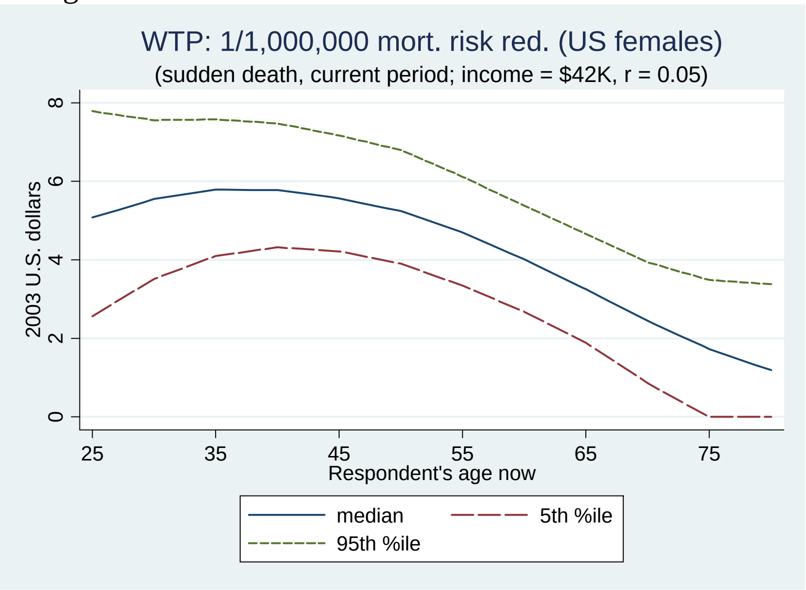


Figure II.5

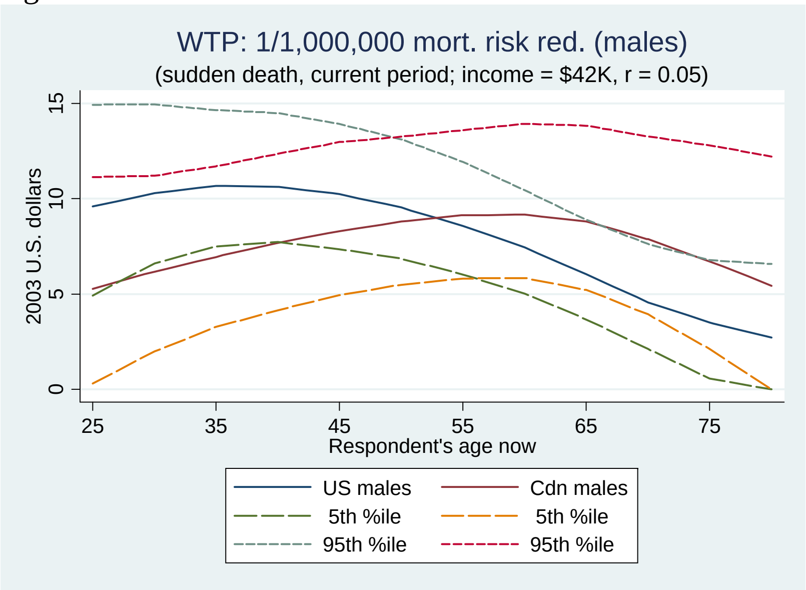


Figure II.6

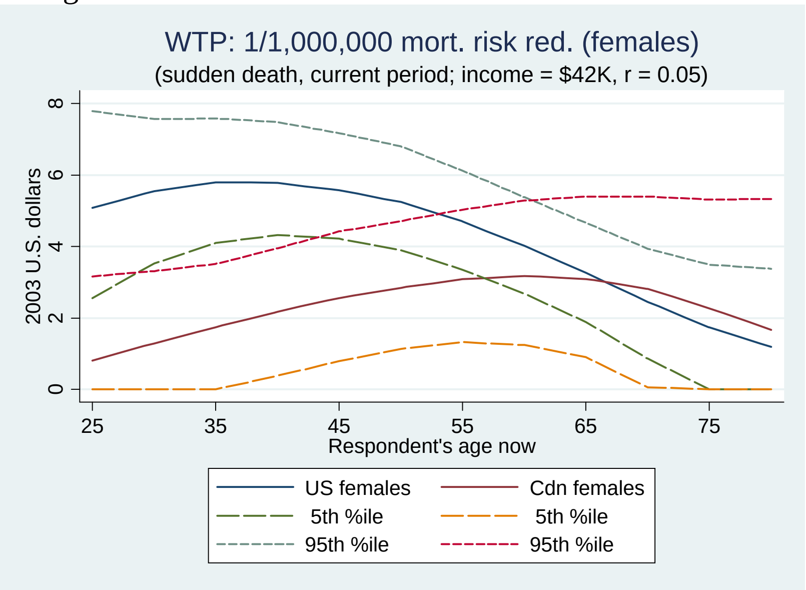
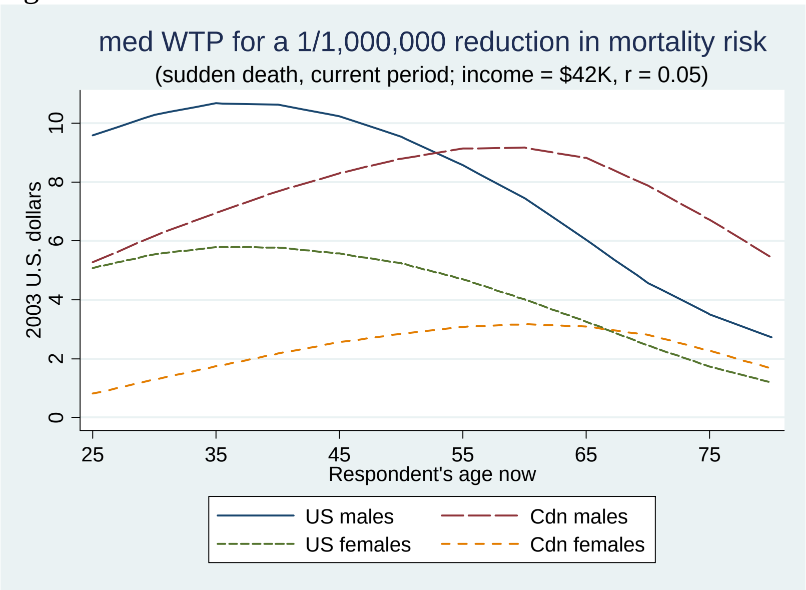


Figure II.7



Appendix III: Fitted distribution of *WTP* per discounted life-year, by <u>gender</u> (median, 5th and 95th percentiles; 1000 random draws)

Figure III.1

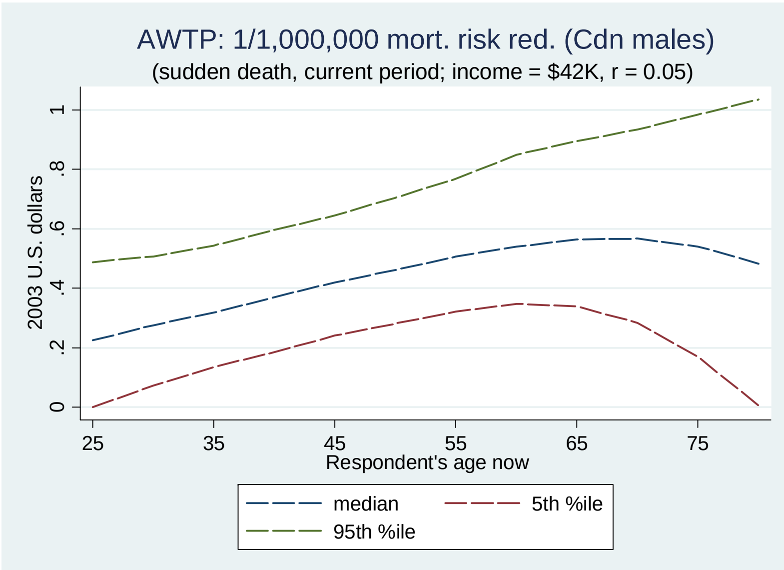


Figure III.2

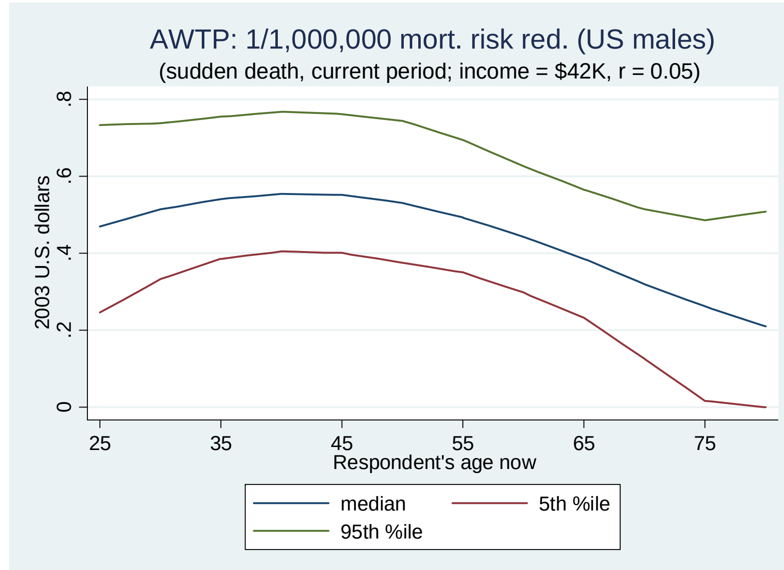


Figure III.3

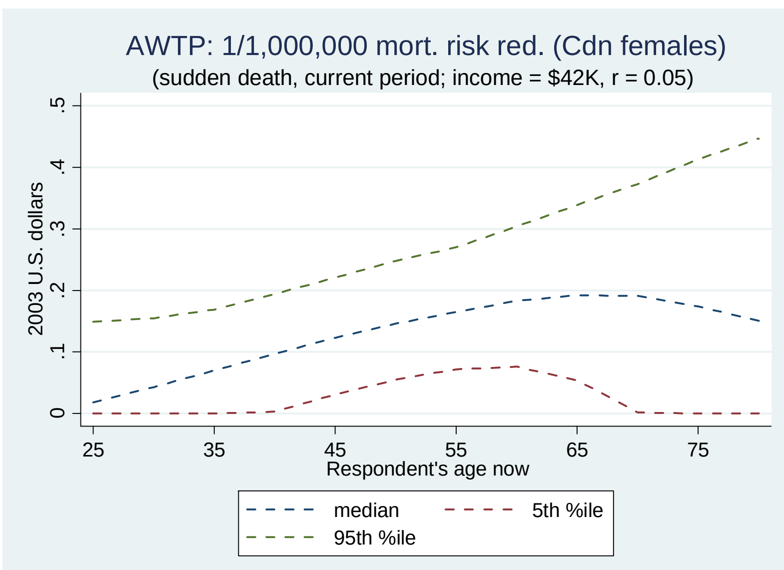
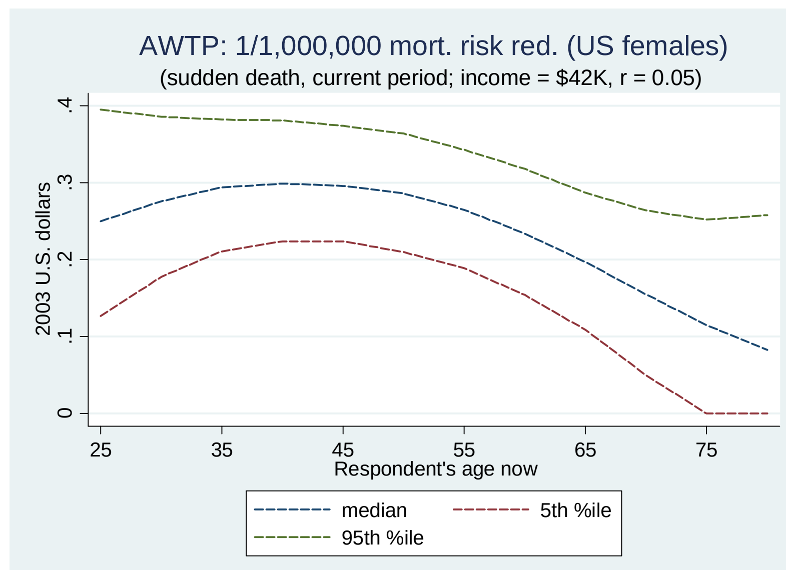


Figure III.4



Appendix IV: Fitted distribution of *WTP* by education (median, 5th and 95th percentiles across 1000 random draws of parameters)

Figure IV.1

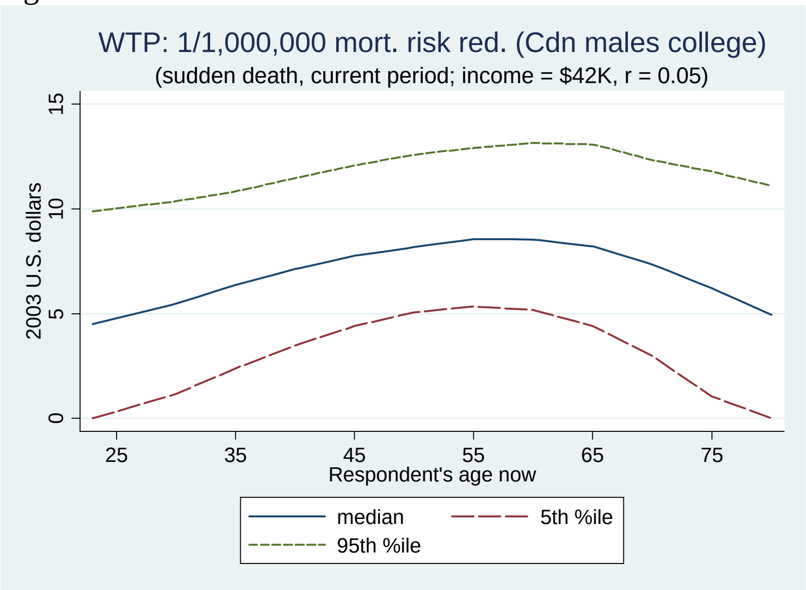


Figure IV.2

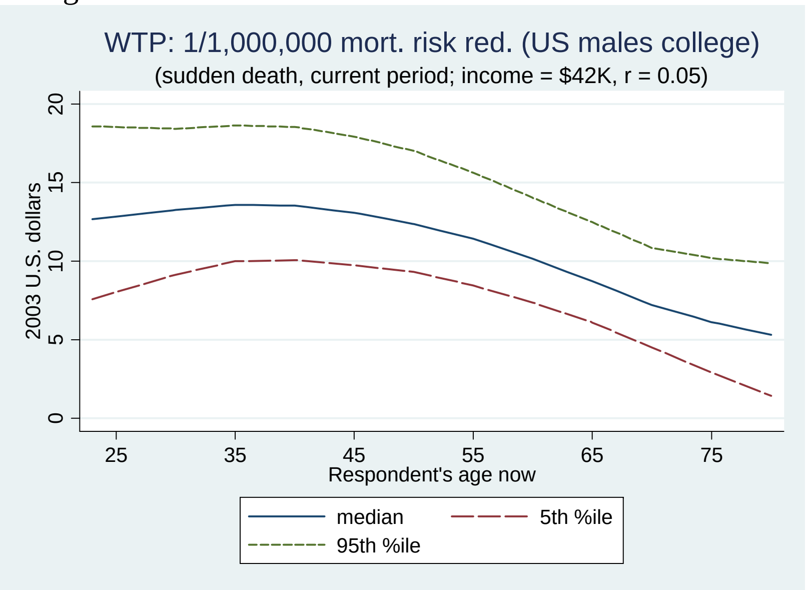


Figure IV.3

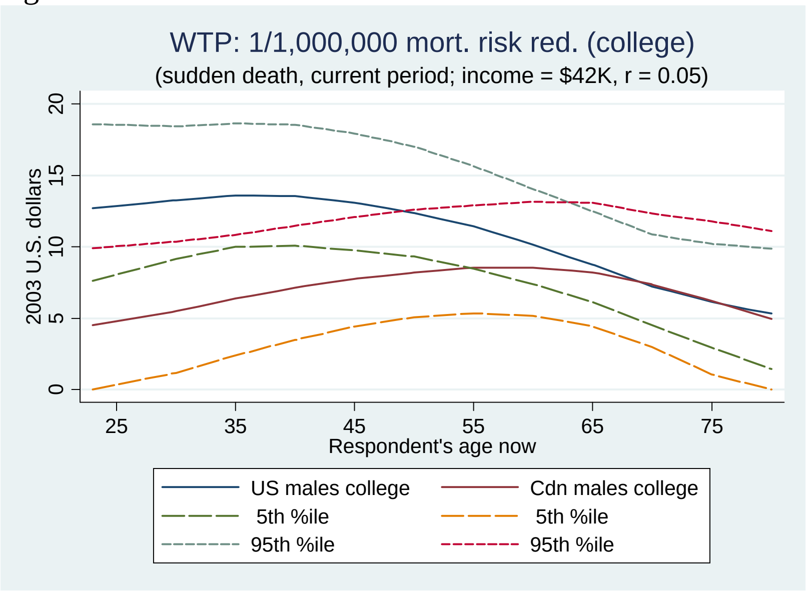


Figure IV.4

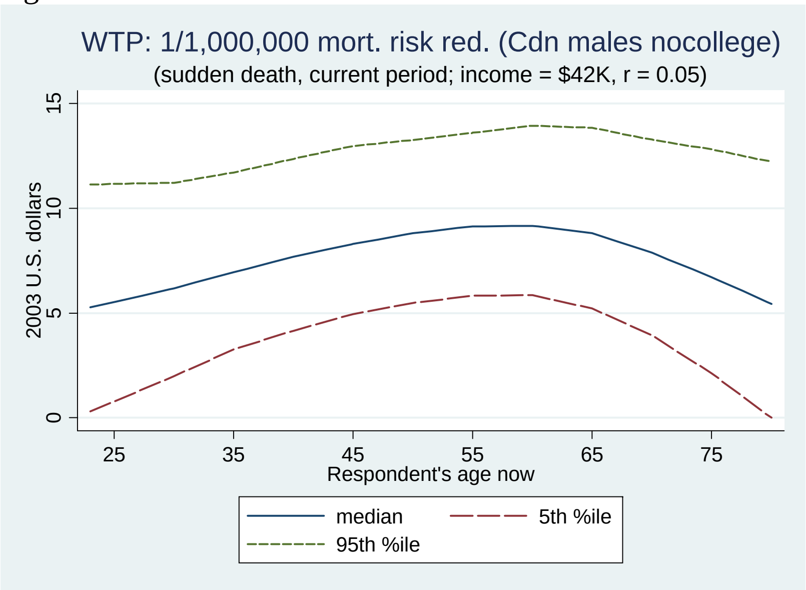


Figure IV.5

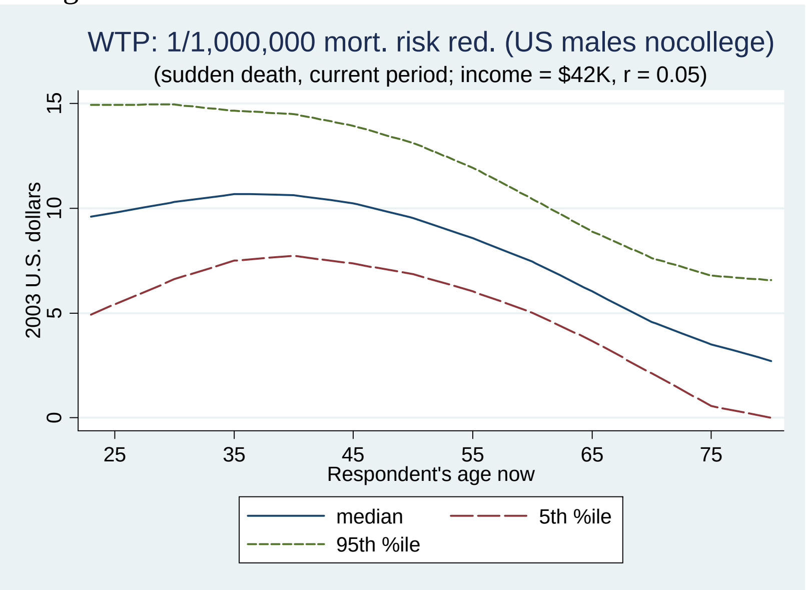


Figure IV.6

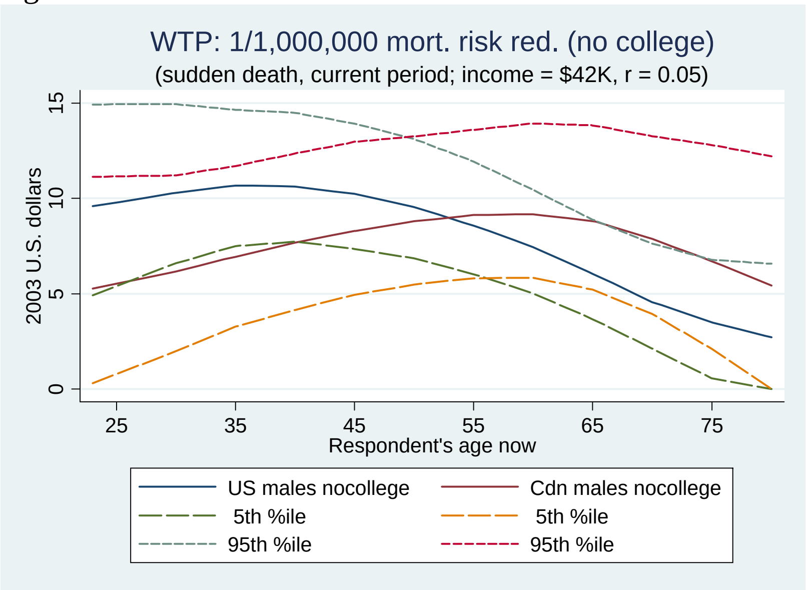


Figure IV.7

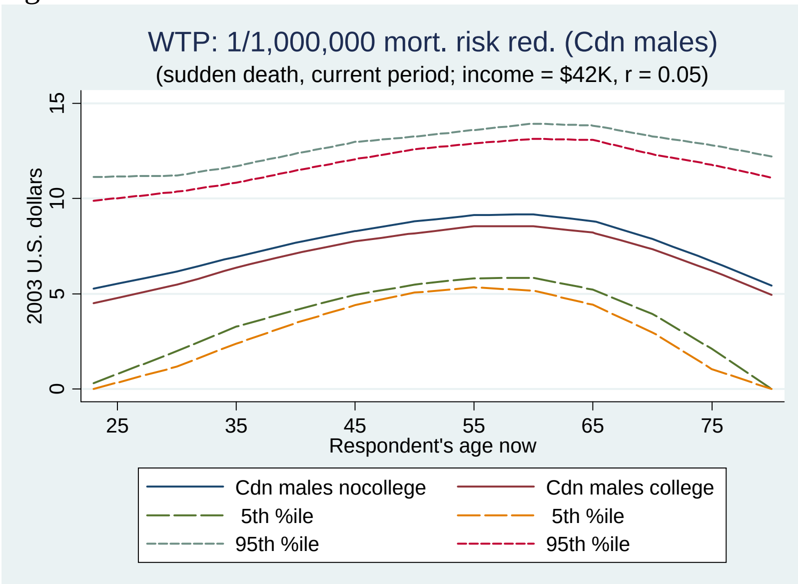


Figure IV.8

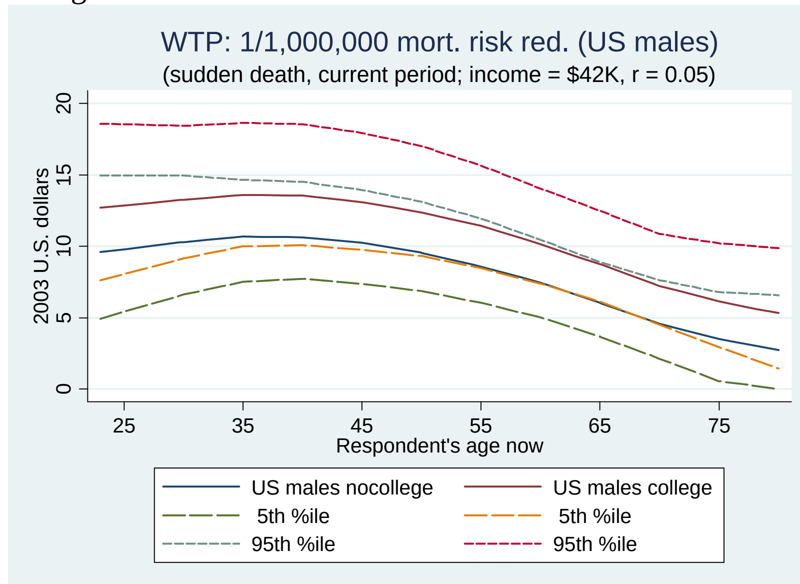
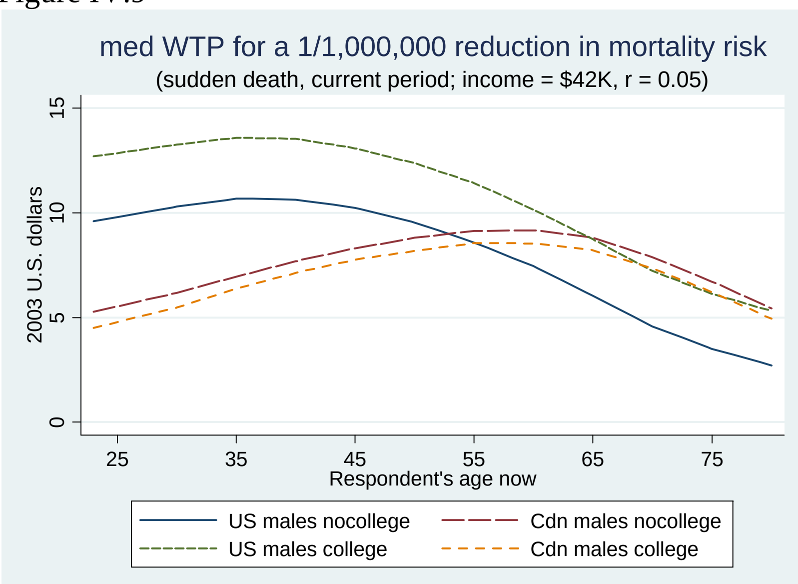


Figure IV.9



Appendix V: Fitted distribution of *WTP* by marital status (median, 5th and 95th percentiles across 1000 random draws of parameters)

Figure V.1

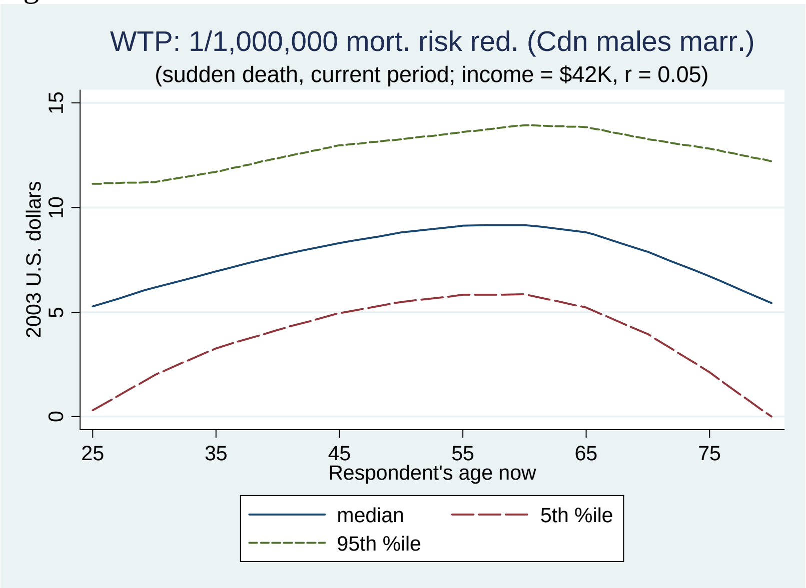


Figure V.2

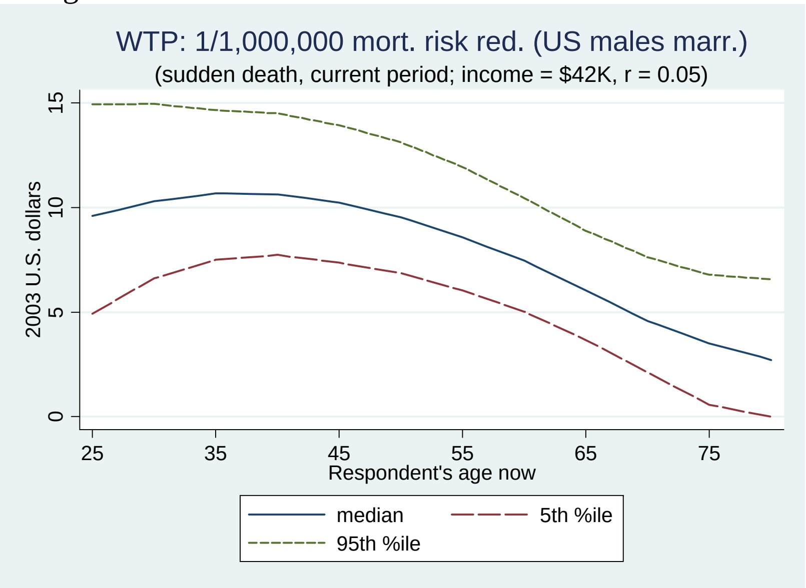


Figure V.3

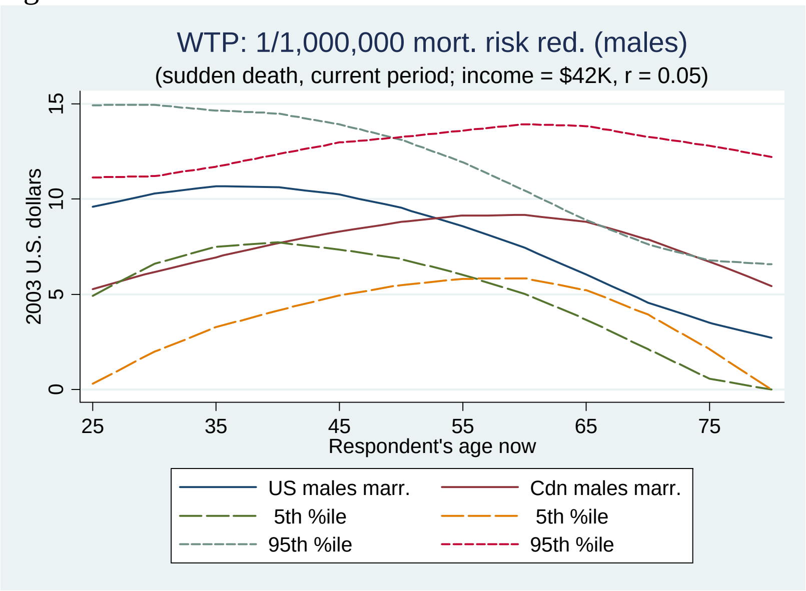


Figure V.4

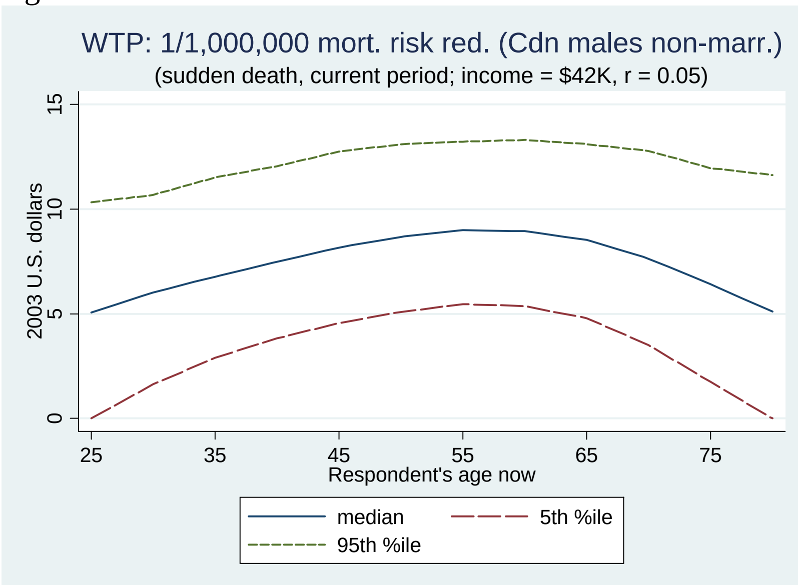


Figure V.5

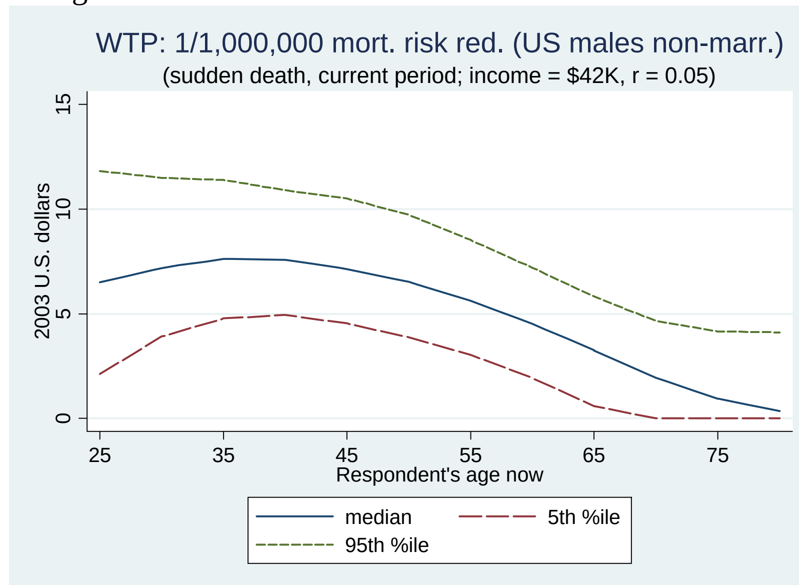


Figure V.6

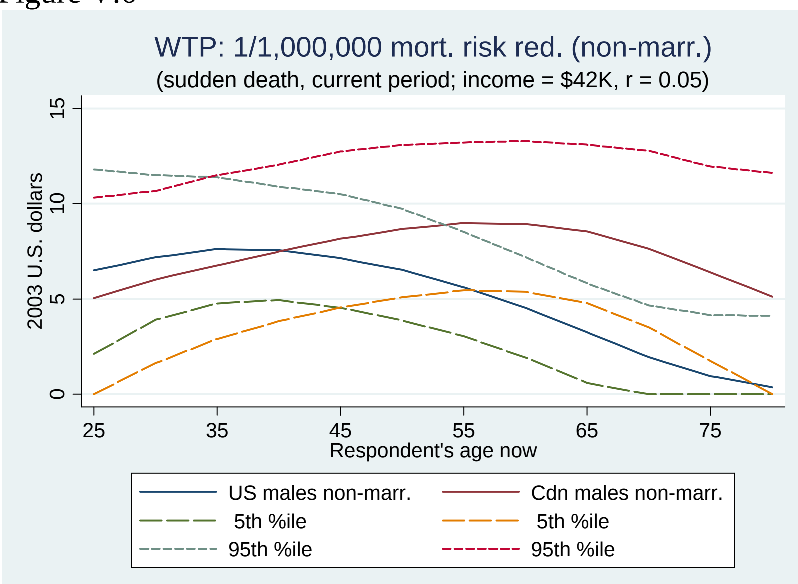


Figure V.7

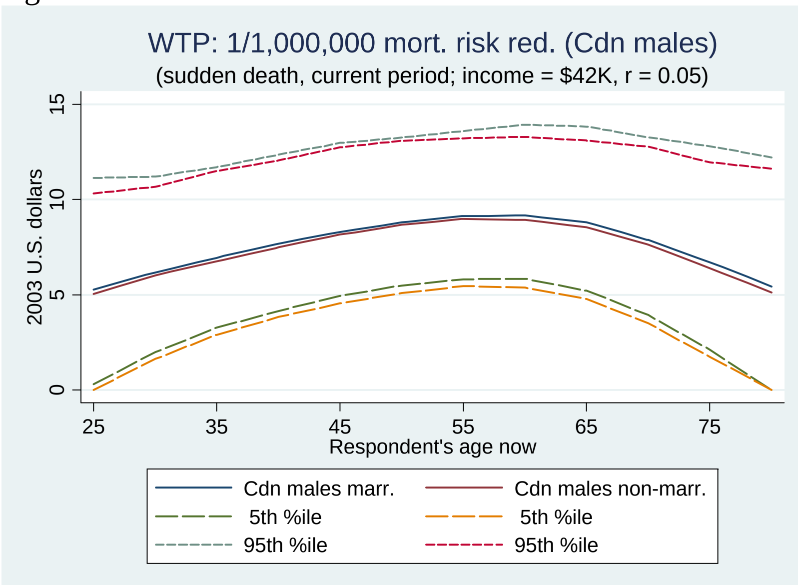


Figure V.8

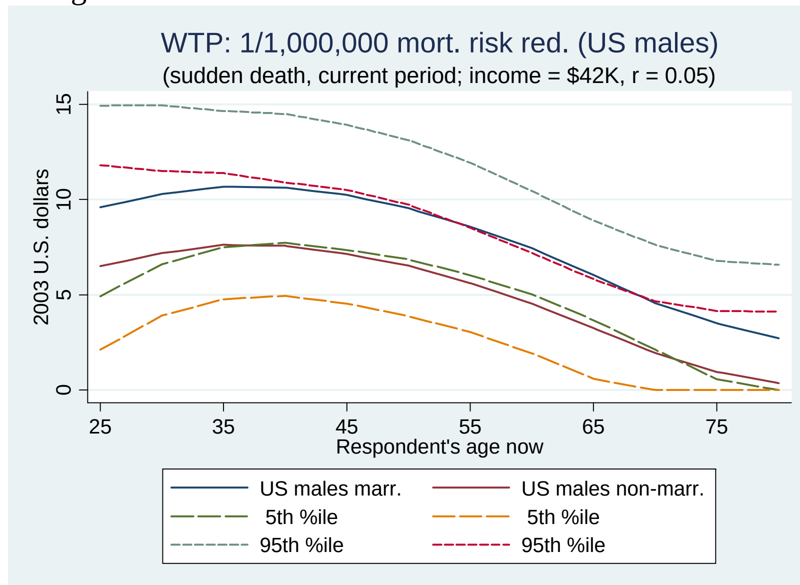
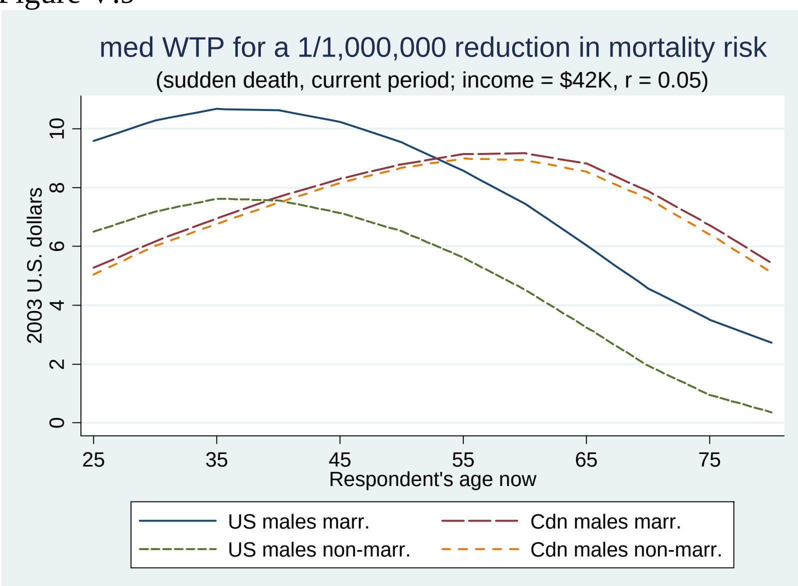


Figure V.9



Appendix VI: Fitted distribution of *WTP* by experience with out-of-plan medical tests (median, 5th and 95th percentiles; 1000 random draws)

Figure VI.1

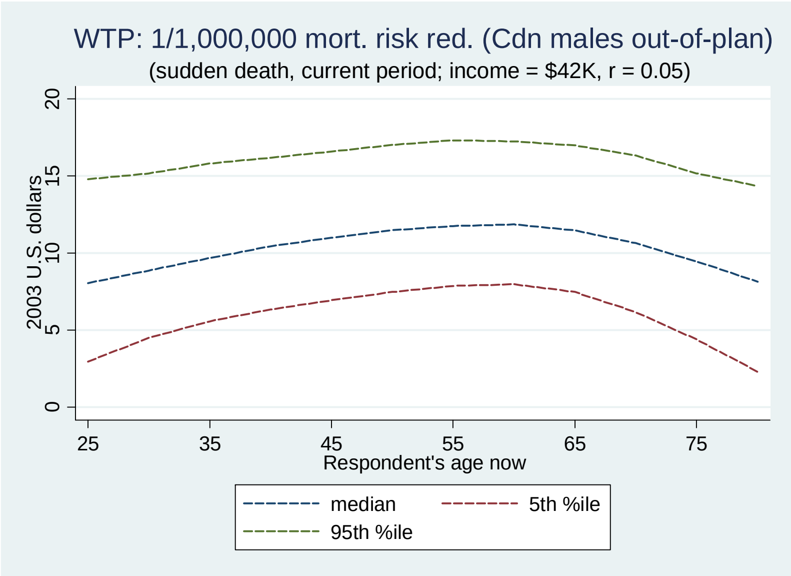


Figure VI.2

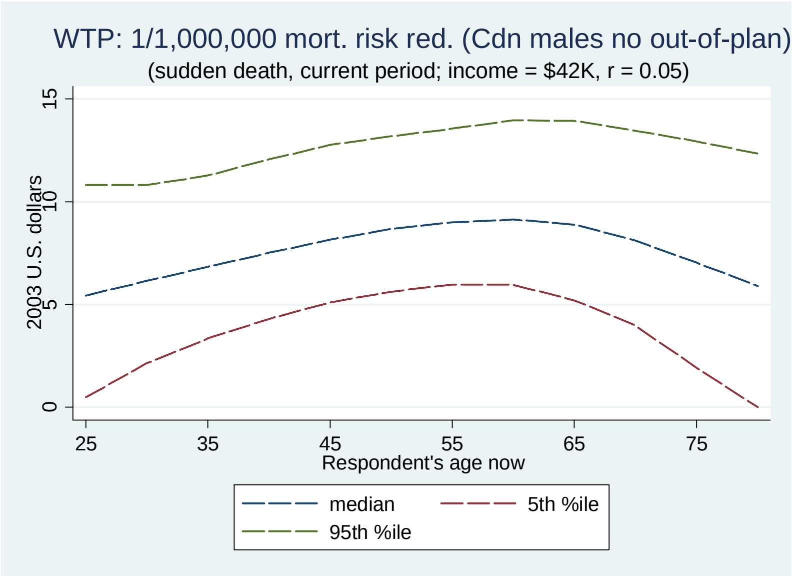


Figure VI.3

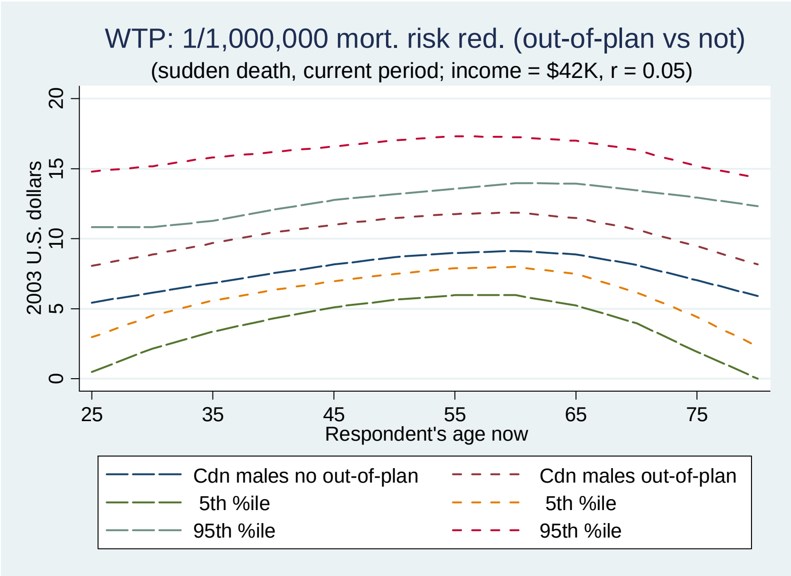
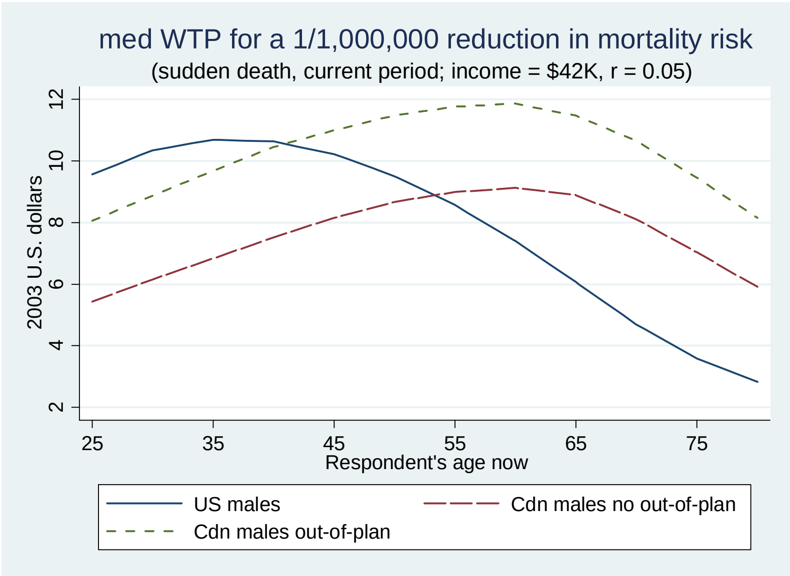


Figure VI.4



Appendix VII: The complete specification

Additional incidental variables

Following each choice task in the survey, respondents were asked about their personal expected latency for each of the health threats in question. If the respondent expected never to benefit from a program, or expected the latency of the illness to be longer or shorter than what was described in the illness profile, we used this information to construct shift variables to accommodate over- or under-estimation of the latency. Second, at the end of the survey, we questioned respondents directly about their individual subjective life expectancy. If this life expectancy differed from the nominal life expectancy in the choice scenarios, this discrepancy was similarly allowed to shift the utility parameters in the model.

Full-fledged selectivity correction models in multiple-choice conditional logit models are challenging, so we do not attempt them here. Moreover, non-response modeling data are not available for the Canadian sample. Here, we do have the data needed to estimate a response/non-response model that produces fitted response probabilities for each individual in the U.S. sample. For each U.S. respondent, we use the deviation of this fitted response propensity from the median response propensity among all 500,000-plus members of Knowledge Network, Inc.'s initial random-digit-dialed recruiting sample. For Canadian respondents, the variable takes on a value of zero, such that no "correction" is made for deviation between predicted response propensity and average response propensity.[30]

Under ideal circumstances, every respondent would reveal subjective latencies that match the ones used in the choice scenarios. They would each have a subjective life expectancy that matched the nominal life expectancy for someone their age and gender that was used in their copy of the survey instrument. Finally, all members of the recruitment pool would have equal propensities to show up in the estimating sample. Under these conditions, all of our nuisance variables (expressed as deviations from their intended values) would be zero, so we use zero values for these variables in our simulations.

[30] While Canadian response/nonresponse propensities are left uncorrected, we note that our models control for all the observables upon which the Canada and U.S. samples differ in terms of the marginal distributions, and this strategy will minimize the impact of selection bias on the basic coefficients.

Table 3(expanded): Empirical Results (extensive format with t-test statistics)

	Model 1		Model 2		Model 3	
	U.S.	CDN Δ	U.S.	CDN Δ	U.S.	CDN Δ
Net income term (complex formula)	.01285 (10.48)***	.01258 (3.85)***	.01287 (9.46)***	.01031 (2.81)***	0.01441 (6.23)***	-
…×1(female)	-	-	-	-	0.01051 (4.26)***	-
…×1(high risk of this illness)	-	-	-	-	-0.007896 (2.68)***	-
…×1(mod low risk of this illness)	-	-	-	-	-	0.01578 (2.19)**
…×1(highly confident in health care)	-	-	-	-	0.004449 (1.84)*	-
…×1(not at all confident in health care)	-	-	-	-	-	0.01915 (2.62)***
Illness Years: $\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)$	-27.13 (4.71)***	-2.493 (0.24)	-47.37 (5.44)***	-23.68 (1.51)	-50.95 (3.45)***	-61.74 (3.11)***
…×1(female)	-	-	-	-	31.67 (3.02)***	-
…×1(high risk of this illness)	-	-	-	-	-30.84 (1.92)*	-
…×1(mod high risk of this illness)	-	-	-	-	-12.34 (-0.96)	-
…×1(mod low risk of this illness)	-	-	-	-	23.33 (1.76)*	-
…×1(low risk of this illness)	-	-	-	-	35.3 (2.47)**	-
…×1(mod. high room to impr exercise)	-	-	-	-	-31.77 (2.97)***	-
…×1(very high room to impr exercise)	-	-	-	-	-38.08 (3.57)***	-
…×1(very low room to impr smoking)	-	-	-	-	-	44.56 (2.74)***
…×1(mod low room to impr smoking)	-	-	-	-	-	193.3 (2.47)**
Recovered Years: $\Delta\pi_i^{jS}\log\left(pdvr_i^j+1\right)$	-22.81 (2.45)**	-7.764 (0.45)	-17.54 (1.87)*	-7.952 (0.45)	-	-
…×1(female)	-	-	-	-	-69.37 (4.95)***	47.19 (1.97)**
Lost Life Years: $\Delta\pi_i^{jS}\log\left(pdvl_i^j+1\right)$	-29.23 (5.88)***	20.01 (2.20)**	-428.1 (2.65)***	-27.75 (0.08)	-423.2 (2.75)***	-
…×age	-	-	12.04 (1.86)*	-5.734 (0.40)	26.75 (4.34)***	-24.9 (9.17)***
…×age^2	-	-	-.08826 (1.44)	.1363 (0.96)	-0.2685 (4.58)***	0.3665 (8.09)***

…×1(female)	-	-	-	-	22.18 (2.02)**	36.64 (1.92)*
…×1(college degree or more)	-	-	-		-36.2 (3.28)***	40.07 (2.19)**
…×1(non-married)	-	-	-	-	34.7 (3.15)***	-33.62 (1.76)*
…×1(highly confident in health care)	-	-	-	-	-18.71 (-1.58)	46.23 (2.20)**
…×1(not at all confident in health care)	-	-	-	-	28.2 (2.38)**	-
…×1(high risk of this illness)	-	-	-	-	-67.66 (4.65)***	-
…×1(mod high risk of this illness)	-	-	-	-	-43.08 (3.59)***	-
…×1(mod low risk of this illness)	-	-	-	-	31.44 (2.61)***	-
…×1(low risk of this illness)	-	-	-	-	66.4 (4.98)***	-
…×1(have gone outside CDN plan)	-	-	-	-	-	-34.16 (1.75)*
…×1(very low room to impr doct. visits)	-	-	-	-	-16.9 (1.79)*	-
Squared: $\Delta\pi_i^{jS}\left[\log\left(pdvl_i^j+1\right)\right]^2$	-	-	145.1 (1.80)*	60.41 (0.36)	142.5 (1.85)*	-
…×age	-	-	-4.919 (1.51)	.7678 (0.11)	-10.6 (3.41)***	9.493 (7.59)***
…× age^2	-	-	.04097 (1.31)	-.04427 (0.63)	0.1091 (3.63)***	-0.1431 (6.50)***
Interaction: $\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)\times\log\left(pdvl_i^j+1\right)$	-	-	31.14 (3.81)***	28.06 (1.87)*	-31.3 (3.07)***	95.74 (5.91)***
Scenario Adjustment Controls:						
(Net income term)×overest. of latency	-	-	-	-	0.000801 (6.57)***	-
$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)$ ×1(benefit never)	-	-	-	-	200.9 (4.61)***	-
$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)$ ×overest. of latency	-	-	-	-	8.324 (8.96)***	-
$\Delta\pi_i^{jS}\log\left(pdvl_i^j+1\right)$ ×1(benefit never)	-	-	-	-	638.5 (4.16)***	-
$\Delta\pi_i^{jS}\log\left(pdvl_i^j+1\right)$ ×overest. of latency	-	-	-	-	11.91 (14.42)***	-
$\Delta\pi_i^{jS}\log\left(pdvl_i^j+1\right)$ ×age×1(benefit never)	-	-	-	-	-6.943 (2.73)***	-

$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)\times\log\left(pdvl_i^j+1\right)$ ×overest. of latency	-	-	-	-	-4.833 (4.36)***	-
$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)\times\log\left(pdvl_i^j+1\right)\times$age ×1(benefit never)	-	-	-	-	-14.87 (4.27)***	-
$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)\times\log\left(pdvl_i^j+1\right)\times$age^2 ×1(benefit never)	-	-	-	-	0.2238 (4.05)***	-
$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)$ ×overest. of life expectancy	-	-	-	-	-0.8679 (3.08)***	-
$\Delta\pi_i^{jS}\log\left(pdvl_i^j+1\right)$ ×overest. of life expectancy	-	-	-	-	-0.3764 -1.41	-
U.S. Sample Selection Controls:						
$\Delta\pi_i^{jS}\log\left(pdvi_i^j+1\right)\times\left[P(sel_i)-\overline{P}\right]$	-	-	-	-	3.81 (2.37)**	-
	32079		32079		32079	
	-16706.611		-16644.202		-15736.1	

Absolute value of z statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%