

SUPPLEMENTAL MATERIAL

Supplemental Table 1. Cross-tabulation of Income drops (1900-2005), Income trajectory (1990-2005), and large income changes (1990-2005) with tertiles of income volatility (1990-2005), CARDIA study.

	Tertile of Income Volatility			
	Overall N=3,977	Low n=1,325	Medium n=1,326	High n=1,326
Number of Income Drops*				
0	2,356 (59.2%)	1,299 (98.0%)	783 (59.1%)	274 (20.7%)
1	1,365 (34.3%)	18 (1.4%)	488 (36.8%)	859 (64.8%)
2+	256 (6.0%)	8 (0.6%)	55 (4.2%)	193 (14.6%)
Income trajectory*				
No change/increase	2,104 (52.9%)	1,203 (90.8%)	695 (52.4%)	206 (15.5%)
Fluctuation	1,737 (43.7%)	85 (6.4%)	577 (43.5%)	1,075 (81.1%)
Decrease	136 (3.4%)	37 (2.8%)	54 (4.1%)	45 (3.4%)
Large income changes*				
None	2,119 (53.3%)	1,298 (98%)	519 (39.1%)	302 (22.8%)
At least one large increase	1,227 (30.9%)	26 (2.0%)	715 (53.9%)	486 (36.7%)
Large fluctuation	422 (10.6%)	0 (0.0%)	19 (1.4%)	403 (30.4%)
At least one large decrease	209 (5.3%)	1 (0.1%)	73 (5.5%)	302 (22.8%)

Abbreviations: CARDIA: Coronary Artery Risk Development in Young Adults

*Chi square p value < 0.01

Supplemental Table 2. Multivariable adjusted (for cumulative time-varying covariates) Cox proportional hazards models of income volatility and number of income drops (1990-2005) with incident cardiovascular disease events and all-cause mortality (2005-2015), CARDIA study.

	Cardiovascular Disease				All-Cause Mortality			
	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Tertiles of Income Volatility								
Low	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Medium	1.32 (0.76, 2.30)	1.26 (0.70, 2.26)	1.26 (0.70, 2.26)	1.29 (0.72, 2.33)	1.70 (1.10, 2.64)	1.63 (1.03, 2.56)	1.54 (0.97, 2.43)	1.57 (0.98, 2.51)
High	2.57 (1.57, 4.22)	2.21 (1.23, 3.94)	1.97 (1.11, 3.52)	2.09 (1.13, 3.86)	2.49 (1.65, 3.76)	2.19 (1.37, 3.50)	1.73 (1.08, 2.77)	1.64 (1.00, 2.71)
Number of Income Drops								
0	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
1	1.89 (1.25, 2.84)	1.63 (1.03, 2.56)	1.47 (0.93, 2.33)	1.49 (0.93, 2.38)	1.34 (0.96, 1.87)	1.18 (0.82, 1.68)	1.00 (0.70, 1.43)	0.99 (0.69, 1.43)
2+	3.35 (1.87, 6.03)	2.93 (1.56, 5.49)	2.82 (1.49, 5.36)	2.94 (1.52, 5.70)	2.90 (1.83, 4.57)	2.32 (1.43, 3.77)	1.85 (1.13, 3.03)	1.68 (1.02, 2.77)

Abbreviations: CARDIA: Coronary Artery Risk Development in Young Adults; HR: Hazards ratio.

Boldface indicates statistical significance, $p < 0.05$

Model 1 is unadjusted; model 2 is adjusted for 1990 age, sex, race, less than a high school education, study site, cumulative: marital status, insurance status, and number of individuals in the household; model 3 is additionally adjusted for cumulative: BMI, systolic blood pressure, total cholesterol, fasting glucose, smoking, alcohol use, physical activity, and elevated depressive symptoms; model 4 is additionally adjusted for cumulative: income and unemployment status.

Supplemental Table 3. Multivariable adjusted Cox proportional hazards models of Income trajectory (1990-2005) and Large income changes (1990-2005) with incident cardiovascular disease events and all-cause mortality (2005-2015), CARDIA study.

	Cardiovascular Disease				All-Cause Mortality			
	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)	Model 1 HR (95% CI)	Model 2 HR (95% CI)	Model 3 HR (95% CI)	Model 4 HR (95% CI)
Income trajectory								
No change/increase	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Fluctuation	2.03 (1.36, 3.02)	1.78 (1.13, 2.81)	1.73 (1.08, 2.76)	1.71 (1.06, 2.74)	1.39 (1.01, 1.90)	1.21 (0.84, 1.75)	1.07 (0.73, 1.57)	1.02 (0.69, 1.50)
Decrease	1.23 (0.38, 3.99)	0.97 (0.23, 4.10)	0.95 (0.22, 4.07)	0.97 (0.22, 4.19)	1.75 (0.84, 3.62)	1.36 (0.58, 3.20)	1.40 (0.59, 3.33)	1.62 (0.67, 3.94)
Large income changes								
None	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
At least one large increase	1.19 (0.77, 1.84)	1.50 (0.90, 2.48)	1.48 (0.88, 2.49)	1.38 (0.81, 2.37)	0.70 (0.48, 1.02)	0.87 (0.57, 1.34)	0.96 (0.61, 1.49)	0.79 (0.50, 1.25)
Large fluctuation	1.23 (0.65, 2.31)	1.22 (0.56, 2.67)	1.03 (0.45, 2.36)	0.98 (0.42, 2.26)	0.86 (0.51, 1.46)	1.13 (0.63, 2.02)	1.11 (0.61, 2.02)	1.15 (0.63, 2.09)
At least one large decrease	2.32 (1.21, 4.45)	3.08 (1.55, 6.10)	3.37 (1.68, 6.76)	3.74 (1.83, 7.67)	1.88 (1.12, 3.15)	1.88 (1.04, 3.41)	1.96 (1.05, 3.68)	2.47 (1.30, 4.69)

Abbreviations: CARDIA: Coronary Artery Risk Development in Young Adults; HR: Hazard ratio

Boldface indicates statistical significance, $p < 0.05$

Model 1 is unadjusted; model 2 is adjusted for 1990 age, sex, race, less than a high school education, marital status, number of people in the household, 1992 health insurance status, and study site; model 3 is additionally adjusted for 1990 BMI, systolic blood pressure, total cholesterol, smoking, alcohol use, physical activity, elevated depressive symptoms, and 1992 fasting glucose; model 4 is additionally adjusted for 1990 income and unemployment status.