

**Table 9. Health Innovations, Tests for Invariance and Causality**

Health Condition	Condition Occured Previously?	Sex	Significance Levels				Relative Risk	
			Invariance with SES variables	Invariance w/o SES variables	No SES causality, given invariance	Joint invariance and no SES causality	High SES v. Low SES	Significance
<b>Cancer</b>	All	F	0.056	0.023	0.311	0.057	1.260	0.568
	No	F	0.856	0.865	0.315	0.777	1.234	0.633
	Yes	F	0.133	0.335	0.949	0.313	3.729	0.608
	All	M	0.000	0.000	0.225	0.000	0.569	0.045
	No	M	0.122	0.071	0.059	0.044	0.467	0.008
	Yes	M	0.002	0.046	0.021	0.000	14.731	0.645
<b>Heart</b>	All	F	0.000	0.000	0.812	0.000	0.889	0.617
	No	F	0.214	0.075	0.447	0.240	0.814	0.480
	Yes	F	0.690	0.832	0.623	0.744	0.963	0.927
	All	M	0.017	0.020	0.290	0.018	1.321	0.412
	No	M	0.802	0.571	0.007	0.240	1.698	0.350
	Yes	M	0.472	0.601	0.250	0.382	1.225	0.710
<b>Stroke</b>	All	F	0.068	0.034	0.056	0.023	0.765	0.410
	No	F	0.371	0.239	0.104	0.205	0.748	0.413
	Yes	F	NC	0.529	0.597	NC	1.999	0.755
	All	M	0.086	0.042	0.290	0.080	1.179	0.717
	No	M	0.248	0.162	0.641	0.336	0.874	0.756
	Yes	M	NC	0.002	0.200	NC	8.300	0.584
<b>Mortality</b>		F	0.010	0.006	0.812	0.030	0.680	0.122
		M	0.021	0.032	0.228	0.018	1.196	0.664
<b>All Acute and Mortality</b>		F	NC	0.099	0.689	NC	NC	NC
		M	NC	0.001	0.002	NC	NC	NC
<b>Lung Disease</b>		F	0.493	0.479	0.381	0.470	0.341	0.000
		M	0.603	0.620	0.013	0.174	0.225	0.000
<b>Diabetes</b>		F	0.110	0.177	0.246	0.091	0.847	0.778
		M	0.243	0.199	0.043	0.085	2.649	0.941
<b>All Degenerative</b>		F	0.193	0.255	0.277	0.162	NC	NC
		M	0.389	0.357	0.004	0.056	NC	NC
<b>HBP</b>		F	0.004	0.009	0.777	0.012	1.109	0.779
		M	0.220	0.121	0.668	0.310	0.886	0.809
<b>Arthritis</b>		F	0.041	0.017	0.042	0.012	1.126	0.623
		M	0.187	0.276	0.145	0.116	0.415	0.000
<b>Incontinence</b>		F	0.357	0.329	0.080	0.183	0.867	0.324
		M	0.161	0.486	0.237	0.129	0.980	0.943
<b>All Chronic</b>		F	0.003	0.002	0.070	0.001	NC	NC
		M	0.074	0.169	0.244	0.059	NC	NC

**Table 9. (Continued)**

Health Condition	Condition Occured Previously?	Sex	Significance Levels				Relative Risk	
			Invariance with SES variables	Invariance w/o SES variables	No SES causality, given invariance	Joint invariance and no SES causality	High SES v. Low SES	Significance
<b>Fall</b>		F	0.864	0.763	0.515	0.861	1.016	0.940
		M	0.402	0.383	0.507	0.438	0.944	0.871
<b>Hip Fracture</b>		F	0.604	0.470	0.275	0.520	0.413	0.048
		M	0.056	0.051	0.305	0.055	0.198	0.003
<b>All Accidents</b>		F	0.839	0.687	0.381	0.794	NC	NC
		M	0.098	0.086	0.403	0.107	NC	NC
<b>Proxy</b>		F	0.345	0.442	0.250	0.283	0.414	0.000
		M	0.424	0.326	0.019	0.131	0.447	0.001
<b>Cognitive</b>		F	0.020	0.007	0.001	0.000	0.759	0.162
		M	0.429	0.245	0.022	0.140	0.522	0.003
<b>Psychiatric</b>		F	0.075	0.031	0.012	0.012	0.342	0.000
		M	0.194	0.546	0.110	0.108	0.102	0.000
<b>Depression</b>		F	0.299	0.347	0.078	0.151	0.411	0.000
		M	0.767	0.856	0.302	0.695	0.352	0.001
<b>All Mental</b>		F	0.012	0.003	0.000	0.000	NC	NC
		M	0.443	0.626	0.019	0.152	NC	NC
<b>BMI</b>		F	0.419	0.330	0.738	0.531		
		M	0.010	0.002	0.249	0.009		
<b>Smoke Now</b>		F	0.509	0.242	0.838	0.650	0.649	0.530
		M	0.366	0.146	0.064	0.182	6.448	0.841
<b>ADL</b>		F	0.010	0.018	0.818	0.027		
		M	0.004	0.044	0.370	0.005		
<b>IADL</b>		F	0.673	0.514	0.368	0.636		
		M	0.016	0.003	0.006	0.002		
<b>Self-Rated Health</b>	<b>Poor/Fair</b>	F	0.151	0.111	0.001	0.009	0.670	0.000
		M	0.581	0.570	0.034	0.282	0.656	0.000

**Table 10. Statistically Significant Risk Factors for Wealth Changes**  
**One percent significance level, ↗ indicates increased saving, ↘ indicates decreased saving**

Component	Health Conditions	Covariates
<b>Intact Couple</b>		
Total Wealth	M self-rated health P/F (↗), M new heart (↗), M new hip fracture (↘), F new cancer (↗)	Non-liquid wealth (↘), liquid wealth (↘), income (↗), homeowner (↗)
Non-Liquid Wealth		Non-liquid wealth (↘), liquid wealth (↗), homeowner (↗)
Liquid Wealth	M new heart (↗), M BMI worse (↘)	Non-liquid wealth (↗), liquid wealth (↘), income (↗), dwelling P/F (↘)
<b>Spouse Died</b>		
Total Wealth		Non-liquid wealth (↘), liquid wealth (↘), income (↗)
Non-Liquid Wealth		Non-liquid wealth (↘)
Liquid Wealth	F new stroke (↘)	Non-liquid wealth (↗), liquid wealth (↘), Income (↗)
<b>Single</b>		
Total Wealth	M new cancer (↗), F new cancer (↘), F new depression (↘)	M-F non-liquid wealth (↘), M-F liquid wealth (↘), M-F income (↗)
Non-Liquid Wealth	M hip fracture (↗), M new cancer (↗), M new heart (↗),	M-F non-liquid wealth (↘), M liquid wealth (↗), F income (↗), F homeowner (↗)
Liquid Wealth	F cognitive impairment (↘), F new stroke (↘), F new cognitive impairment (↘)	M-F non-liquid wealth (↗), M-F liquid wealth (↘), M-F income (↗), F dwelling P/F (↘)

Note: M = male, F = female, new = incidence since last wave, P/F = poor or fair.

**Table 11. Wealth Changes, Tests for Invariance and Causality**

Demographic Group Wealth Component	Significance Levels			
	Invariance	Non-Causality		
		Previous health Conditions	Current Health Conditions	All Health Conditions
<b>Intact Couple</b>				
<b>Total wealth</b>	0.000	0.036	0.001	0.000
<b>Non-Liquid wealth</b>	0.000	0.014	0.028	0.001
<b>Liquid Wealth</b>	0.000	0.006	0.012	0.000
<b>Spouse Died</b>				
<b>Total wealth</b>	0.000	0.811	0.776	0.074
<b>Non-Liquid wealth</b>	0.000	0.071	0.814	0.037
<b>Liquid Wealth</b>	0.000	0.676	0.456	0.023
<b>Single</b>				
<b>Total wealth</b>	0.000	0.004	0.022	0.001
<b>Non-Liquid wealth</b>	0.000	0.100	0.347	0.235
<b>Liquid Wealth</b>	0.000	0.000	0.028	0.000

**Table 12. Simulation Outcomes, White Females**

Scenarios: S0 = Baseline, S1 = no diabetes, S2 = all low SES							
	Age:	70	75	80	85	90	95
<b>Survival probability (a)</b>	S0	1.000	0.905	0.743	0.500	0.240	0.079
	S1	1.000	0.906	0.757	0.517	0.257	0.087
	S2	1.000	0.884	0.662	0.359	0.125	0.027
<b>Cancer (b)</b>	S0	0.112	0.174	0.219	0.245	0.257	0.262
	S1	0.112	0.169	0.217	0.243	0.258	0.252
	S2	0.112	0.208	0.273	0.298	0.302	0.336
<b>Heart Disease (b)</b>	S0	0.224	0.322	0.442	0.538	0.588	0.594
	S1	0.224	0.321	0.429	0.515	0.569	0.608
	S2	0.224	0.344	0.495	0.608	0.663	0.679
<b>Stroke (b)</b>	S0	0.042	0.105	0.191	0.272	0.326	0.341
	S1	0.042	0.104	0.186	0.260	0.317	0.351
	S2	0.042	0.105	0.196	0.274	0.320	0.366
<b>Lung disease (b)</b>	S0	0.105	0.151	0.179	0.190	0.168	0.143
	S1	0.105	0.150	0.183	0.190	0.175	0.154
	S2	0.105	0.193	0.258	0.278	0.276	0.286
<b>Diabetes (b)</b>	S0	0.114	0.161	0.198	0.199	0.170	0.157
	S1	0.114	0.000	0.000	0.000	0.000	0.000
	S2	0.114	0.181	0.231	0.233	0.207	0.231
<b>HBP (b)</b>	S0	0.467	0.583	0.678	0.738	0.761	0.778
	S1	0.467	0.585	0.678	0.742	0.783	0.804
	S2	0.467	0.597	0.701	0.764	0.786	0.810
<b>Arthritis (b)</b>	S0	0.232	0.501	0.677	0.791	0.857	0.901
	S1	0.232	0.501	0.670	0.784	0.856	0.905
	S2	0.232	0.567	0.769	0.876	0.925	0.965
<b>Incontinence (b)</b>	S0	0.232	0.416	0.601	0.751	0.843	0.891
	S1	0.232	0.427	0.611	0.749	0.844	0.906
	S2	0.232	0.444	0.664	0.814	0.891	0.917

**Table 12. Simulation Outcomes, White Females** (continued)

Scenarios: S0 = Baseline, S1 = no diabetes, S2 = all low SES

	Age:	70	75	80	85	90	95
<b>Fall (b)</b>	S0	0.071	0.271	0.464	0.635	0.759	0.837
	S1	0.071	0.268	0.456	0.628	0.754	0.846
	S2	0.071	0.260	0.460	0.640	0.759	0.822
<b>Hip fracture (b)</b>	S0	0.030	0.046	0.070	0.109	0.153	0.215
	S1	0.030	0.043	0.069	0.109	0.156	0.190
	S2	0.030	0.056	0.104	0.160	0.224	0.258
<b>Proxy Interview</b>	S0	0.038	0.056	0.103	0.163	0.230	0.294
	S1	0.038	0.063	0.095	0.155	0.222	0.271
	S2	0.038	0.103	0.211	0.316	0.409	0.521
<b>Cognitive impairment (b)</b>	S0	0.104	0.253	0.437	0.609	0.736	0.818
	S1	0.104	0.251	0.435	0.602	0.722	0.803
	S2	0.104	0.405	0.669	0.838	0.910	0.952
<b>Psychiatric disease (b)</b>	S0	0.154	0.215	0.307	0.376	0.421	0.434
	S1	0.154	0.219	0.305	0.379	0.416	0.426
	S2	0.154	0.316	0.508	0.634	0.704	0.762
<b>Depression (b)</b>	S0	0.068	0.183	0.305	0.429	0.515	0.575
	S1	0.068	0.179	0.305	0.424	0.521	0.596
	S2	0.068	0.247	0.434	0.574	0.665	0.749
<b>BMI (c)</b>	S0	25.7	24.7	23.6	22.3	21.0	20.5
	S1	25.7	24.7	23.6	22.3	21.1	20.3
	S2	25.7	24.7	23.4	22.2	21.2	20.8
<b>Current smoker (b)</b>	S0	0.128	0.088	0.063	0.043	0.027	0.017
	S1	0.128	0.091	0.063	0.048	0.031	0.016
	S2	0.128	0.109	0.084	0.056	0.039	0.020
<b>ADL limits (c)</b>	S0	0.31	0.27	0.66	1.18	1.68	2.14
	S1	0.31	0.26	0.59	1.08	1.63	1.99
	S2	0.31	0.45	1.21	2.08	2.77	3.33
<b>IADL limits (c)</b>	S0	0.25	0.11	0.29	0.58	0.85	1.14
	S1	0.25	0.10	0.27	0.53	0.81	1.04
	S2	0.25	0.25	0.73	1.34	1.84	2.30
<b>P/F self-rated health (b)</b>	S0	0.254	0.305	0.441	0.540	0.585	0.613
	S1	0.254	0.293	0.416	0.501	0.574	0.582
	S2	0.254	0.507	0.711	0.811	0.841	0.860

**Table 12. Simulation Outcomes, White Males**

Scenarios: S1 = Baseline, S2 = no diabetes, S3 = all low SES

	Age:	70	75	80	85	90	95
<b>Survival probability (a)</b>	S0	1.000	0.828	0.558	0.279	0.091	0.019
	S1	1.000	0.844	0.586	0.304	0.105	0.025
	S2	1.000	0.827	0.485	0.170	0.032	0.004
<b>Cancer (b)</b>	S0	0.145	0.242	0.320	0.400	0.478	0.514
	S1	0.145	0.248	0.321	0.395	0.482	0.546
	S2	0.145	0.281	0.391	0.479	0.555	0.596
<b>Heart (b)</b>	S0	0.352	0.490	0.611	0.709	0.774	0.733
	S1	0.352	0.488	0.626	0.701	0.752	0.766
	S2	0.352	0.443	0.554	0.627	0.632	0.681
<b>Stroke (b)</b>	S0	0.075	0.140	0.213	0.282	0.317	0.310
	S1	0.075	0.142	0.213	0.287	0.323	0.351
	S2	0.075	0.190	0.317	0.423	0.517	0.596
<b>Lung disease (b)</b>	S0	0.150	0.185	0.205	0.203	0.183	0.152
	S1	0.150	0.184	0.206	0.212	0.200	0.184
	S2	0.150	0.183	0.201	0.195	0.190	0.085
<b>Diabetes (b)</b>	S0	0.135	0.171	0.183	0.190	0.177	0.171
	S1	0.135	0.000	0.000	0.000	0.000	0.000
	S2	0.135	0.135	0.119	0.095	0.085	0.128
<b>HBP (b)</b>	S0	0.443	0.553	0.636	0.699	0.719	0.743
	S1	0.443	0.551	0.637	0.702	0.740	0.784
	S2	0.443	0.565	0.643	0.689	0.692	0.638
<b>Arthritis (b)</b>	S0	0.175	0.405	0.582	0.718	0.801	0.848
	S1	0.175	0.419	0.602	0.719	0.792	0.865
	S2	0.175	0.581	0.806	0.913	0.948	0.915
<b>Incontinence (b)</b>	S0	0.097	0.259	0.433	0.603	0.748	0.852
	S1	0.097	0.252	0.414	0.582	0.707	0.840
	S2	0.097	0.309	0.528	0.703	0.849	0.872

**Table 12. Simulation Outcomes, White Males** (continued)

Scenarios: S1 = Baseline, S2 = no diabetes, S3 = all low SES

	Age:	70	75	80	85	90	95
<b>Fall (b)</b>	S0	0.041	0.162	0.300	0.435	0.547	0.667
	S1	0.041	0.163	0.292	0.440	0.559	0.681
	S2	0.041	0.214	0.410	0.588	0.728	0.809
<b>Hip fracture (b)</b>	S0	0.025	0.032	0.044	0.066	0.119	0.167
	S1	0.025	0.030	0.044	0.068	0.108	0.138
	S2	0.025	0.076	0.147	0.247	0.357	0.447
<b>Proxy Interview</b>	S0	0.111	0.110	0.114	0.125	0.155	0.157
	S1	0.111	0.109	0.120	0.147	0.170	0.170
	S2	0.111	0.223	0.303	0.382	0.429	0.468
<b>Cognitive impairment (b)</b>	S0	0.146	0.326	0.505	0.662	0.768	0.857
	S1	0.146	0.329	0.509	0.657	0.772	0.897
	S2	0.146	0.484	0.743	0.881	0.934	0.936
<b>Psychiatric disease (b)</b>	S0	0.085	0.133	0.186	0.240	0.268	0.291
	S1	0.085	0.135	0.187	0.240	0.263	0.319
	S2	0.085	0.237	0.430	0.557	0.621	0.660
<b>Depression (b)</b>	S0	0.038	0.105	0.184	0.233	0.262	0.281
	S1	0.038	0.110	0.196	0.259	0.263	0.344
	S2	0.038	0.199	0.344	0.421	0.445	0.404
<b>BMI (c)</b>	S0	26.1	25.5	24.9	24.6	24.4	24.4
	S1	26.1	25.6	25.0	24.7	24.6	24.1
	S2	26.1	24.6	23.6	23.2	23.2	22.9
<b>Current smoker (b)</b>	S0	0.131	0.063	0.035	0.015	0.009	0.005
	S1	0.131	0.061	0.041	0.014	0.003	0.000
	S2	0.131	0.075	0.038	0.013	0.000	0.000
<b>ADL limits (c)</b>	S0	0.33	0.36	0.75	1.33	1.84	2.45
	S1	0.33	0.38	0.79	1.37	1.88	2.46
	S2	0.33	0.94	2.11	3.24	4.15	4.51
<b>IADL limits (c)</b>	S0	0.34	0.16	0.33	0.63	0.94	1.24
	S1	0.34	0.15	0.34	0.64	0.95	1.23
	S2	0.34	0.52	1.22	2.00	2.65	2.85
<b>P/F self-rated health (b)</b>	S0	0.282	0.355	0.445	0.487	0.514	0.543
	S1	0.282	0.352	0.448	0.488	0.482	0.500
	S2	0.282	0.586	0.760	0.818	0.871	0.830

Notes:

- Proportion of age 70 population surviving to the specified age.
- Proportion of surviving population at specified age who ever had condition.
- Mean in surviving population..



**Table 13. Wealth and Income in AHEAD and in the Baseline Scenario**

Age	70-74	75-79	80-84	85-89	90+
<b>AHEAD Cross-Cohort Data</b>					
Total Wealth (000)					
1st Quartile	64.38	46.92	32.76	14.05	2.17
Median	144.04	112.76	94.35	71.34	40.13
3rd Quartile	314.27	242.68	203.20	185.91	117.93
Non-Liquid Wealth (000)					
1st Quartile	47.72	28.20	10.81	0.86	0.00
Median	94.94	80.48	62.01	44.19	5.44
3rd Quartile	178.96	151.68	113.88	109.12	65.47
Liquid Wealth (000)					
1st Quartile	2.18	1.31	0.54	0.33	0.00
Median	26.19	15.97	11.89	9.73	5.40
3rd Quartile	98.21	70.93	70.93	55.31	37.83
Income (000)					
1st Quartile	14.15	11.97	9.76	8.68	6.74
Median	22.78	19.59	15.26	13.77	9.76
3rd Quartile	34.92	31.65	28.06	25.10	15.29
<b>Baseline Simulation Data</b>					
Total Wealth (000)					
1st Quartile	56.67	65.69	37.07	16.08	8.22
Median	136.20	121.43	79.94	51.86	41.59
3rd Quartile	299.13	206.63	136.38	91.16	74.29
Non-Liquid Wealth (000)					
1st Quartile	42.72	37.39	17.56	2.97	-3.77
Median	91.53	74.34	47.13	29.17	21.21
3rd Quartile	171.34	118.09	78.90	55.44	45.07
Liquid Wealth (000)					
1st Quartile	1.64	19.16	10.91	4.96	3.61
Median	22.79	43.77	31.16	22.01	19.38
3rd Quartile	95.90	80.05	58.58	42.39	36.69
Income (000)					
1st Quartile	13.56	13.57	11.25	8.62	7.92
Median	21.82	18.19	15.89	13.58	11.92
3rd Quartile	34.70	29.58	23.12	17.81	15.85