

Table 2. Health Condition Variables in AHEAD

Label	Wave 1				Wave 2				Wave 3			
	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev
Health Condition Prevalence												
Doc ever told had cancer?	CANCER1	6489	0.137	0.344	CANCER2	6432	0.176	0.381	CANCER3	5685	0.188	0.391
Doc ever told heart attack/disease?	HEART1	6489	0.317	0.465	HEART2	6432	0.364	0.481	HEART3	5685	0.321	0.467
Doc ever told had stroke?	STROKE1	6489	0.089	0.285	STROKE2	6432	0.123	0.329	STROKE3	5685	0.143	0.350
Doc ever told had lung disease?	LUNG1	6489	0.115	0.318	LUNG2	6432	0.124	0.330	LUNG3	5685	0.127	0.333
Doc ever told had diabetes?	DIABET1	6489	0.134	0.340	DIABET2	5741	0.147	0.354	DIABET3	4867	0.158	0.365
Doc ever told had high blood pressure?	HIGHBP1	6489	0.502	0.500	HIGHBP2	5741	0.525	0.499	HIGHBP3	4867	0.553	0.497
Seen Doc for arthritis in last12m?	ARTHRT1	6489	0.267	0.442	ARTHRT2	5741	0.278	0.448	ARTHRT3	4867	0.279	0.448
Incontinence last12m?	INCONT1	6489	0.202	0.402	INCONT2	5741	0.301	0.459	INCONT3	4867	0.371	0.483
Fall in last12m require treatment?	FALL1	6489	0.080	0.271	FALL2	6432	0.180	0.384	FALL3	5685	0.267	0.443
Ever fractured hip?	HIPFRC1	6489	0.050	0.219	HIPFRC2	6432	0.068	0.252	HIPFRC3	5685	0.084	0.278
Proxy Interview	PROXYW1	6489	0.104	0.306	PROXYW2	5741	0.132	0.339	PROXYW3	4867	0.154	0.361
Age-educ adjust cognitive impairment?	COGIM1	6489	0.257	0.437	COGIM2	5741	0.349	0.477	COGIM3	4867	0.403	0.491
Ever seen Doc for psych prob?	PSYCH1	6489	0.109	0.312	PSYCH2	5741	0.128	0.334	PSYCH3	4867	0.143	0.350
Depressed (cesd8>4)	DEPRES1	6488	0.099	0.299	DEPRES2	5741	0.086	0.280	DEPRES3	4862	0.108	0.310
Body Mass Index (Quetelet)	BMI1	6475	25.4	4.5	BMI2	5740	25.1	4.6	BMI3	4866	25.0	4.6
Low BMI spline=max(0,20-bmi)	LOBMI1	6475	0.155	0.654	LOBMI2	5740	0.198	0.763	LOBMI3	4866	0.223	0.810
High BMI spline=max(0,bmi-25)	HIBMI1	6475	1.889	3.164	HIBMI2	5740	1.808	3.143	HIBMI3	4866	1.740	3.037
Current smoker?	SMOKNOW1	6489	0.102	0.303	SMOKNOW2	5741	0.078	0.267	SMOKNOW3	4867	0.066	0.249
# of ADL's (needs help/difficult)	NUMADL1	6489	0.725	1.391	NUMADL2	6432	0.882	1.652	NUMADL3	5444	1.035	1.774
# of IADL's (needs help/difficult)	NUMIADL1	6489	0.618	1.166	NUMIADL2	6432	0.582	1.204	NUMIADL3	5685	0.711	1.253
Poor/Fair self-reported health	DHLTH1	6483	0.373	0.484	DHLTH2	5739	0.368	0.482	DHLTH3	4859	0.434	0.496

Table 2. Health Condition Variables in AHEAD (continued)

Label	Wave 1				Wave 2				Wave 3			
	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev
Health Condition Incidence												
Cancer ^a					JCANCER2	6432	0.050	0.218	JCANCER3	5685	0.061	0.239
Heart Attack/Condition ^a					JHEART2	6432	0.087	0.281	JHEART3	5685	0.154	0.361
Stroke ^a					JSTROKE2	6432	0.050	0.219	JSTROKE3	5685	0.069	0.254
Died Since Last Wave?					TDIED2	6489	0.115	0.319	TDIED3	5741	0.152	0.359
Lung Disease ^a					ILUNG2	6432	0.024	0.154	ILUNG3	5685	0.032	0.177
Diabetes ^a					IDIABET2	5741	0.024	0.153	IDIABET3	4867	0.025	0.156
High Blood Pressure (HBP) ^a					IHIGHBP2	5741	0.053	0.225	IHIGHBP3	4867	0.055	0.229
Arthritis ^a					IARTHRT2	5741	0.112	0.316	IARTHRT3	4867	0.117	0.321
Incontinence <i>In Last 12 months</i>					JINCONT2	5741	0.233	0.423	JINCONT3	4867	0.258	0.438
Fall Requiring Treatment ^a					JFALL2	6432	0.128	0.335	JFALL3	5240	0.165	0.371
Hip Fracture ^a					JHIPFRC2	6432	0.02	0.150	JHIPFRC3	5681	0.033	0.178
Proxy Interview					PROXYW2	5741	0.132	0.339	PROXYW3	4867	0.154	0.361
Cognitive Impairment					ICOGIM2	5741	0.121	0.326	ICOGIM3	4867	0.100	0.300
Psychiatric Problems ^a					IPSYCH2	5741	0.046	0.210	IPSYCH3	4867	0.040	0.196
Depression					IDEPRES2	5741	0.051	0.220	IDEPRES3	4862	0.072	0.259
Body Mass Index (Quetelet)					BMI2	5740	25.1	4.6	BMI3	4866	25.0	4.6
BMI Better Indicator					BMIBT2	5740	0.197	0.397	BMIBT3	4866	0.190	0.392
BMI Worse Indicator					BMIWS2	5740	0.167	0.373	BMIWS3	4866	0.188	0.391
Current Smoker					SMOKNOW2	5741	0.078	0.267	SMOKNOW3	4867	0.066	0.249
Number Of ADL's					NUMADL2	6432	0.882	1.652	NUMADL3	5444	1.035	1.774
Number Of IADL's					NUMIADL2	6432	0.582	1.204	NUMIADL3	5685	0.711	1.253
Fair/Poor Self-Reported Health					DHLTH2	5739	0.368	0.482	DHLTH3	4859	0.434	0.496

a. AHEAD Waves 2 and 3: "Since the last interview...?"

Table 3. SES and Demographic Variables in AHEAD

Label	Wave 1				Wave 2				Wave 3			
	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev
<u>SES Variables:</u>												
Wealth 97 Dol (V.2) (000)	C_2W1	6489	176.6	297.8	C_2W2	5741	237.5	527.3	C_2W3	4867	247.7	736.2
Non-Liquid Wealth (000)	C_2N1	6489	112.0	191.8	C_2N2	5741	121.2	312.1	C_2N3	4867	119.2	400.7
Liquid Wealth (000)	C_2L1	6489	64.7	185.2	C_2L2	5741	116.3	309.6	C2_L3	4867	128.6	560.6
Income 97 Dol (V.2) (000)	C_2I1	6489	23.8	28.8	C_2I2	5741	24.5	58.6				
1 st Quartile Wealth Indicator	Q1WB1	6489	0.261	0.654	Q1WB2	5741	0.228	0.419	Q1WB3	4867	0.255	0.436
4 th Quartile Wealth Indicator	Q4WB1	6489	0.216	0.412	Q4WB2	5741	0.273	0.446	Q4WB3	4867	0.268	0.443
1 st Quartile Income Indicator	Q1IB1	6489	0.260	0.439	Q1IB2	5741	0.246	0.431				
4 th Quartile Income Indicator	Q4IB1	6489	0.247	0.431	Q4IB2	5741	0.246	0.431				
Change Residence?					NMOVED2	5642	0.068	0.251	MOVED3	4867	0.102	0.303
Own Residence?	DNHOUS1	6489	0.732	0.443	DNHOUS2	5741	0.721	0.449	DNHOUS3	4867	0.707	0.455
Neighborhood Safety Poor/Fair	HOODPF1	6489	0.147	0.354	HOODPF2	5741	0.107	0.309	HOODPF3	4867	0.101	0.301
House Condition Poor /Fair	CONDPF1	6489	0.146	0.354	CONDPF2	5741	0.109	0.312	CONDPF3	4867	0.123	0.328
<u>Demographic Variables</u>												
Widow?	WIDOW1	6489	0.416	0.493	WIDOW2	5741	0.443	0.497	WIDOW3	4867	0.434	0.496
Divorced/Separated?	DIVSEP1	6489	0.054	0.226	DIVSEP2	5741	0.054	0.226	DIVSEP3	4867	0.055	0.228
Married	MARRIED1	6489	0.498	0.500	MARRIED2	5741	0.465	0.499	MARRIED3	4867	0.477	0.500
Never Married?	NEVMARR1	6489	0.032	0.176	NEVMARR2	5741	0.035	0.172	NEVMARR3	4867	0.031	0.172
Age At Interview In Months	AGEM1	6489	939.2	72.0	AGEM2	6432	962.9	71.9	AGEM3	5741	984.8	68.7
Mother's Death Age	MAGEDIE1	6489	73.9	17.4								
Father's Death Age	PAGEDIE1	6489	71.5	15.1								
Ever Smoke?	SMOKEV	6489	0.526	0.499								
Education (Years)	EDUC	6489	10.7	3.8								
Educ > 10 Yrs Indicator	HS	6489	0.605	0.489								
Educ > 14 Yrs Indicator	COLL	6489	0.143	0.350								

Table 4. Prevalence of Health Conditions by Age and Sex

Condition	White Females					White Males					
	Age:	70-74	75-79	80-84	85-89	90+	70-74	75-79	80-84	85-89	90+
Cancer^a		0.122	0.137	0.168	0.141	0.127	0.132	0.185	0.202	0.187	0.093
Heart Disease^a		0.244	0.275	0.361	0.339	0.370	0.361	0.390	0.423	0.368	0.296
Stroke^a		0.051	0.069	0.104	0.121	0.133	0.066	0.12	0.102	0.130	0.148
Lung Disease^a		0.109	0.123	0.108	0.082	0.055	0.151	0.171	0.173	0.093	0.056
Diabetes^a		0.121	0.097	0.107	0.088	0.055	0.133	0.145	0.112	0.104	0.074
High Blood Pressure^a		0.481	0.510	0.537	0.582	0.448	0.433	0.477	0.418	0.321	0.167
Arthritis^b		0.222	0.285	0.267	0.328	0.254	0.167	0.205	0.196	0.161	0.167
Incontinence^b		0.228	0.263	0.266	0.331	0.365	0.085	0.138	0.145	0.161	0.259
Fall^b		0.082	0.096	0.116	0.138	0.133	0.044	0.046	0.048	0.088	0.056
Hip Fracture^a		0.032	0.052	0.079	0.127	0.138	0.020	0.031	0.041	0.067	0.056
Cognitive Impairment		0.120	0.149	0.338	0.452	0.635	0.137	0.173	0.291	0.446	0.500
Psychiatric Disease^a		0.149	0.137	0.105	0.082	0.044	0.094	0.092	0.071	0.036	0.056
Depression		0.070	0.117	0.131	0.099	0.116	0.048	0.050	0.071	0.083	0.093
Smoker		0.133	0.095	0.058	0.040	0.017	0.142	0.123	0.082	0.041	0.093
ADL Impairment^c		0.375	0.544	0.829	1.266	2.16	0.285	0.499	0.691	1.114	1.444
IADL Impairment^c		0.293	0.340	0.662	1.099	2.011	0.304	0.422	0.658	0.964	1.426
Self-Reported Health		0.273	0.348	0.387	0.393	0.42	0.263	0.364	0.437	0.332	0.296

a. AHEAD 1993 (Wave 1) question: “Has a doctor ever told you.../Do you have.../Have you ever...?”

b. AHEAD 1993 (Wave 1) question: “During the last 12 months, have you...?”

c. average number; max(ADL)=6, max(IADL)=5

**Table 5. Summary of Associations of SES and Health Conditions
AHEAD Wave 1**

SES Association	White Females	White Males
1 percent level	Heart Disease, Stroke, Lung Disease, Diabetes, Cognitive Impairment, Depression, BMI, IADL Impairment, Self-Reported Health Status	Lung Disease, Cognitive Impairment, BMI, Current Smoker, ADL Impairment, IADL Impairment, Self-Reported Health Status
5 percent level	Cancer, HBP, Arthritis	HBP, Depression
Not significant	Incontinence, Fall, Hip Fracture, Psychiatric Condition, Current Smoker, ADL Impairment	Cancer, Heart Disease, Stroke, Diabetes, Arthritis, Incontinence, Fall, Hip Fracture, Psychiatric Condition

Note: HBP = high blood pressure, BMI = body mass index (high or low), ADL = activities of daily living (impairment requiring assistance with personal care), IADL = instrumental activities of daily living (impairment requiring assistance with household management)

Table 6. Significant Associations of SES Components and Health Conditions

↗ = positive at 5% level, ↗↗ = positive at 1% level, ↘ = negative at 5% level, ↘↘ = negative at 1 level%

Condition	Wealth		Income		Educ.		Unsafe Nbd.		Dwelling P/F	
	F	M	F	M	F	M	F	M	F	M
Cancer						↗	↘			
Heart Disease	↘↘								↗↗	
Stroke	↘↘				↘↘					
Lung Disease		↘								
Diabetes	↘	↘		↘						
HBP										↗↗
Arthritis	↘	↘								
Incontinence							↗		↗	↗↗
Fall	↘						↗			
Hip Fracture										
Cognitive Impairment	↘↘		↘↘		↘↘	↘↘		↗		↗↗
Psychiatric Condition					↘					
Depression				↘	↘				↗↗	
BMI	↘↘				↘↘	↘↘				
Current Smoker		↘↘								↗
ADL Impairment		↘↘								
IADL Impairment	↘↘				↘↘					
P/F Self-Rated Health	↘↘				↘↘	↘		↗	↗↗	↗↗

Note: The table summarizes 180 two-tailed significance tests, so that if the tests were independent, one would expect about 9 of the 41 significant coefficients at the 5 percent level by chance, and about 2 of the 23 significant coefficients at the 1 percent level by chance .

Table 7. Relative Risk of High vs. Low SES for Various Health Conditions
Associations in AHEAD Wave 1

Condition	Relative Risk		Condition	Relative Risk		Condition	Relative Risk	
	F	M		F	M		F	M
Cancer	1.97	0.98	HBP	0.76*	0.65*	Cognitive Imp.	0.53*	0.17*
Heart Disease	0.46*	0.75*	Arthritis	0.80	0.60*	Psychiatric	1.14	0.64
Stroke	0.61	0.43*	Incontinence	0.83	0.71	Depression	0.34*	0.21*
Lung Disease	0.30*	0.33*	Fall	0.68	0.44*	Smoke Now	0.27*	0.23*
Diabetes	0.19*	0.65	Hip Fracture	0.82	0.83	Health Poor/Fair	0.31*	0.34*

Note: High SES is defined as top quartile in wealth and income, college education, and good neighborhood and dwelling; low SES is defined as bottom quartile in wealth and income, less than a high school education, and poor neighborhood and dwelling. Relative risks that are significantly different from one at the 5 percent level are denoted by ‘*’.

Table 8. Statistically Significant Risk Factors for Incidence of Health Conditions
One percent significance level

Incidence	Health Conditions and Co-morbidities		SES Covariates	
	Female	Male	Female	Male
Cancer	Cancer (↗), BMI (↘),		Ever smoke (↗)	
Heart Disease	Lung disease (↗), diabetes (↗), P/F self-rated health (↗)	Diabetes (↗), P/F self-rated health (↗)		
Stroke	Stroke (↗), new heart (↗)	Stroke (↗), HBP (↗), psychiatric (↗), new heart (↗)	Income (↗)	
Mortality	Cancer (↗), HBP (↗), arthritis (↘), cognitive impairment (↗), BMI (↘), ADL (↗), P/F self-rated health (↗), new cancer (↗), new heart (↗), new stroke (↗)	Cancer (↗), lung (↗), diabetes (↗), incontinence (↘), cognitive impairment (↗), BMI, ADL (↗), P/F self-rated health (↗), new cancer (↗), new heart (↗), new stroke (↗)		Mother's death age (↘)
Lung Disease	Heart (↗), current smoker (↗), P/F self-rated health (↗)	P/F self-rated health (↗)		Wealth (↘)
Diabetes	BMI (↗)	Lung disease (↘), BMI (↗)	Ever smoke (↘)	Education (↘)
HBP	BMI (↗), new heart (↗), new stroke (↗), new diabetes (↗)	Heart (↗), arthritis (↗), new heart (↗), new stroke (↗)		
Arthritis	lung (↗), depression (↗), BMI (↗), ADL (↗), P/F self-rated health (↗)	HBP (↗), BMI (↗)	Education (↘), mother's death age (↗)	
Incontinence	Arthritis (↗), incontinence (↗), fall (↗), BMI (↗), ADL (↗), IADL (↗), new heart (↗), new stroke (↗), new arthritis (↗)	Lung (↗), incontinence (↗), IADL (↗), new stroke (↗)		

Table 8. Statistically Significant Risk Factors for Incidence of Health Conditions (continued)

Incidence	Health Conditions and Co-morbidities		SES Covariates	
	Female	Male	Female	Male
Fall	Fall (↗), hip fracture (↗), cognitive impairment (↗), psychiatric (↗), new incontinence (↗)	Fall (↗), new stroke (↗), new incontinence (↗)		
Hip Fracture	Fall (↘), hip fracture (↗), new fall (↗)	Hip fracture (↗), new incontinence (↗)		
Cognitive Impairment	New stroke (↗), new hip fracture (↗)	HBP (↘), IADL (↗)	Education (↘)	
Psychiatric	Heart (↗), Hip fracture, Cognitive impairment (↗), Depression (↗), new incontinence (↗), new cognitive impairment (↗)	Arthritis (↗), BMI (↘), new HBP (↗), new incontinence (↗)	Income (↘), Widow (↘), Divorced/sep (↘)	
Depression	Cancer (↘), heart (↗), P/F self-rated health (↗), new arthritis (↗), new incontinence (↗), new psychiatric (↗)	Lung (↗), new incontinence (↗)	ever smoke (↗)	
Self-rated health	Heart (↗), lung (↗), diabetes (↗), arthritis (↗), cognitive impairment (↗), depression (↗) P/F self-rated health (↗), new cancer (↗), new heart (↗) new stroke (↗), new lung (↗), new arthritis (↗), new depression (↗), new ADL (↗)	Heart (↗), lung (↗), HBP (↗), P/F self-rated health (↗), new cancer (↗), new heart (↗), new stroke (↗), new lung (↗), new cognitive impairment (↗), new psychiatric (↗), new depression (↗), new BMI (*), new ADL (↗)	Dwelling P/F (↗)	

Notes:

(*) indicates any change in BMI, up or down, lowers self-rated health.

The table summarizes approximately 1000 tests of individual coefficients, so that if they were independent, one would expect Duignan approximately 10 of the listed associations reflect type I errors.