

FRAMINGHAM HEART STUDY - CODING MANUAL

EXAM1

COHORT: OFFSPRING

DATA COLLECITON TIME FRAME: EXAM1

SAS DATASET NAME: EX1\_1S.SAS7BDAT

#RECORDS: 5124

The value ranges and observation number stated in the manual are based on the original data set. In some cases, observation may be deleted due to participant consent form restrictions. If observations have been deleted from this data set, the ranges or observation number may differ from those stated in this manual.

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*****
VERSION 1:  02-23-2007   Added note to A24

VERSION 2:  08-21-2007   DELETED A168 and A169 use basic file

                09-25-2007   DELETED A182 and A183 calculated variables
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Note: This coding manual and dataset were revised.  
 All revisions to coding manual are listed in red font.  
 Areas of revision: Lab assays.

VARIABLE NUMBER	SOURCE	INFORMATION
A1	C4/1-4	Identification Number deleted - use random id
A2	CALCULATED	Age 1 < 20 6 40-44 2 20-24 7 45-49 3 25-29 8 50+ 4 30-34 5 35-39 no unknowns deleted - redundant, use most current basic file
A3	C1	Sex 1 man 2 woman no unknowns deleted - redundant, use most current basic file

A4	C1	Relationship Code
		1 both natural parents in cohort
		2 only natural mother in cohort
		3 only natural father in cohort
		4 neither natural parent present in cohort
		5 spouse of offspring
		no unknowns
		deleted - redundant, use most current family file
A5	C1	Parent or Parent-In-Law Status
		0 both parents of offspring in cohort
		1 one parent of offspring in cohort
		no unknowns
		deleted - to preserve confidentiality
A6		Mother's or Mother-In-Law's cohort ID #
		. mother not in cohort
		. unknown (506)
		deleted - to preserve confidentiality
A7		Father's or Father-In-Law's Cohort ID #
		. father not in cohort
		. unknown (761)
		deleted - to preserve confidentiality
A8	CALCULATED	Metropolitan Relative Weight *
		44-258 known in percent
		. unknown (1)
<p>* USE WITH CAUTION. + OR - 1% FROM ACTUAL METROPOLITAN RELATIVE WEIGHT.</p>		
A9	C4/5-7	Total Cholesterol (FHS lab)
		96-450 known in mg/dl
		. unknown (91)
A10	C4/14-16	HDL Cholestrol (FHS lab)
		12-123 known in mg/dl
		. unknown (108)
A11	C4/17-19	VLDL Cholesterol (FHS lab)
		0-264 known in mg/dl
		. unknown (108)
A12	C4/20-22	LDL Cholesterol (FHS lab)
		29-403 known in mg/dl
		. unknown (108)
A13	C4/23-26	Triglycerides mg/100mL (FHS lab)
		2-2286 (5042)
		. unknown (93)
A14	C4/27	Whole Plasma, Origin (FHS lab)
		0 no
		1 yes

		2 trace	
		. unknown (105)	
A15	C4/28	Whole Plasma, Pre-Beta (FHS lab)	
		0 no	
		1 yes	
		2 trace	
		. unknown (104)	
A16	C4/29	Top Fraction, Origin (FHS lab)	
		0 no	
		1 yes	
		2 trace	
		. unknown (116)	
A17	C4/30	Top Fraction, Beta (FHS lab)	
		0 no	
		1 yes	
		2 trace	
		. unknown (116)	
A18	C4/31	Top Fraction, Pre-Beta (FHS lab)	
		0 no	
		1 yes	
		2 trace	
		. unknown (116)	
A19	C4/32	Bottom Fraction, Pre-Beta (FHS lab)	
		0 no	
		1 yes	
		2 trace	
		. unknown (114)	
A20	C4/33	Whole Plasma Appearance (FHS lab)	
		0 clear	
		1 cloudy	
		2 milky	
		. unknown (91)	
A21	C4/34	Infranate After 12 Hrs. At 4 degrees (FHS lab)	
		0 clear	
		1 cloudy	
		2 milky	
		. unknown (92)	
A22	C4/35	Cream After 12 Hrs. or More (FHS lab)	
		0 no	
		1 yes	
		. unknown (92)	
A23	C4/36	Fasting 12 Hrs. or More (FHS lab)	
		0 no	
		1 yes	
		. unknown (112)	
A24	C4/37	Confirmation Type 3 (FHS lab)	
		0 no	
		1 yes	

\*\*\* Version1 02-23-2007 Not measured on the majority of participants

A25	C4/38	Pre-Beta Band (FHS lab) 0 no 1 yes 2 trace . unknown (110)
A26	C4/39	Sinking Pre-Beta Band (FHS lab) 0 no 1 yes 2 trace . unknown (113)
A27	C4/40	Frederickson Classification (FHS lab) 0 normal 2 lipoprotein type 2A 3 lipoprotein type 3 4 lipoprotein type 4 5 lipoprotein type 5 6 lipoprotein type 2B . unknown (114)
A28	C5/6-7	Hematocrit (METPATH lab profile) 25-62 known in percent . unknown (289)
A29	C5/8-10	Calcium mg/dL (METPATH lab profile) 7.6-12.5 (4881) . unknown (254)
A30	C5/11-13	Phosphorus mg/dL (METPATH lab profile) 1.4-8.3 (4886) . unknown (249)
A31	C5/14-16	Glucose mg/dL (METPATH lab profile) 60-390 . unknown (219)
A32	C5/17-18	Bun mg/dL (METPATH lab profile) 5-98 . unknown (249)
A33	C5/19-21	Uric Acid mg/dL (METPATH lab profile) 1.2-13.7 (4911) . unknown (224)
A34	C5/25-26	Total Protein g/dL (METPATH lab profile) 4.8-8.8 (4886) . unknown (249)
A35	C5/27-28	Albumin g/dL (METPATH lab profile) 2.4-5.9 (4884) . unknown (251)

A36	C5/29-30	Globulin g/dL (METPATH lab profile) 1.0-4.9 (4917) . unknown (218)
A37	C5/31-32	Total Bilirubin mg/dL (METPATH lab profile) .1-4.0 (4915) . unknown (220)
A38	C5/33-34	Alkaline Phosphotase IU/L (METPATH lab profile) 16-98 . unknown (228)
A39	C5/35-37	LDH IU/L (METPATH lab profile) 55-600 . unknown (249)
A40	C5/38-40	SGOT IU/L (METPATH lab profile) 8-998 . unknown (232)
A41	C5/41-43	T4 mcg\dl (METPATH lab profile) 1.0-14.6 (790) . unknown (4345)
A42	C6/6-7	Month of Examination 1-12 known no unknowns deleted - redundant, use most current basic file
A43	C6/8-9	Day of Examination 1-31 known no unknowns deleted - redundant, use most current basic file
A44	C6/10-11	Year of Examination 71-75 known no unknowns deleted - redundant, use most current basic file
A45	C6/12-13	Month of Birth 1-12 known no unknowns deleted - redundant, use most current basic file
A46	C6/14-15	Day of Birth 1-31 known no unknowns deleted - redundant, use most current basic file
A47	C6/16-17	Year of Birth

5-66 known  
no unknowns  
deleted - redundant, use most current  
basic file

A48	C6/18-19	Right Subscapular Skinfold 2-64 known in mm. . unknown (54) deleted - data is known to be unreliable
A49	C6/20-21	Left Subscapular Skinfold 2-60 known in mm. . unknown (54) deleted - data is known to be unreliable
A50	C6/22-24	Body Weight 42-350 known in pounds no unknowns
A51	C6/25-26	Body Height 46-78 known in inches . unknown (1)
A52	C6/27-28	Fractional Body Height 0-75 known in hundredths of inch . unknown (1)
A53	C6/29-31	Nurse Systolic Blood Pressure 80-230 known in mm hg . unknown (39)
A54	C6/32-34	Nurse Diastolic Blood Pressure 50-150 known in mm hg . unknown (39)
A55	C6/35-37	Physician Systolic Blood Pressure, first 78-250 known in mm hg . unknown (9)
A56	C6/38-40	Physician Diastolic Blood Pressure, first 48-156 known in mm hg . unknown (9)
A57	C6/41-43	Physician Systolic Blood Pressure, second 82-224 known in mm hg . unknown (4220)
A58	C6/44-46	Physician Diastolic Blood Pressure, second 44-160 known in mm hg . unknown (4220)
A59	C6/47-48	First Second Volume 5-64 known in deciliter . unknown (55) deleted - data is known to be unreliable
A60	C6/49-50	Total Vital Capacity 9-70 known in deciliter . unknown (55) deleted - data is known to be unreliable
A61	C6/51	ECG Finding Summary 1 normal

		2 abnormal
		3 doubtful
		. unknown (2)
A62	C7/6	History of Heart or Coronary Attack
		0 no
		1 yes
		. unknown (6)
		deleted - redundant, use most current soe file
A63	C7/7	History of Angina Pectoris
		2 no
		3 yes
		. unknown (13)
		deleted - redundant, use most current soe file
A64	C7/8	History of Nephrosis
		4 no
		5 yes
		. unknown (43)
A65	C7/9	History of Other Kidney Ailment
		6 no
		7 yes
		. unknown (44)
A66	C7/10	History of Diabetes Mellitus
		0 no
		1 yes
		. unknown (10)
		deleted - redundant, use most current diabetes file
A67	C7/11	History of Hypothyroid disease
		2 no
		3 yes
		. unknown (48)
A68	C7/12	History of Stroke, Shock, CVA
		4 no
		5 yes
		. unknown (4)
		deleted - redundant, use most current soe file
A69	C7/13	History of Poor Circulation in Legs
		6 no
		7 yes
		. unknown (7)
A70	C7/14	History of Hypertension
		0 no
		1 yes
		. unknown (10)
A71	C7/15	History of Other Major Illness
		2 no
		3 yes
		. unknown (56)
A72	C7/16	Hospitalization For Major Illness
		0 no
		1 yes
		. unknown (52)

A73	C7/17	Major Illness and/or Doctor Visit 0 no 1 yes . unknown (105)
A74	C7/18	Cardiac Glycosides 0 no 1 yes (now) 2 yes (not now) . unknown (21)
A75	C7/19	Nitrites 3 no 4 yes (now) 5 yes (not now) . unknown (20)
A76	C7/20	Quinidine 6 no 7 yes (now) 8 yes (not now) . unknown (20)
A77	C7/21	Diuretics For fluid Retention 0 no 1 yes (now) 2 yes (not now) . unknown (27)
A78	C7/22	Diuretics For Blood Pressure 3 no 4 yes (now) 5 yes (not now) . unknown (37)
A79	C7/23	Hypotensives (excluding diuretics) 6 no 7 yes (now) 8 yes (not now) . unknown (30)
A80	C7/24	Anti-Cholesterol Agents 0 no 1 yes (now) 2 yes (not now) . unknown (26)
A81	C7/25	Thyroid 3 no 4 yes (now) 5 yes (not now) . unknown (29)
A82	C7/26	Anti-Thyroid 6 no 7 yes (now) . unknown (30)
A83	C7/27	Anti-Coagulants 0 no 1 yes (now) 2 yes (not now) . unknown (30)



A84	C7/28	Hypoglycemic Agents (specify) 3 no 4 yes (now) 5 yes (not now) . unknown (27)
A85	C7/29	Tranquilizers 6 no 7 yes (now) 8 yes (not now) . unknown (38)
A86	C7/30	Bronchodilator or Aerosol 0 no 1 yes (now) 2 yes (not now) . unknown (40)
A87	C7/31	Other (C-V Drugs) 0 no 1 yes (now) 2 yes (not now) . unknown (37)
A88	C7/32	Periods Have Stopped 1 Year or More 0 no 1 yes 8 man no unknowns
A89	C7/33-34	Age at Which Periods Stopped 0 not stopped 19-54 age 88 man . unknown (5)
A90	C7/35	Cause of Cessation of Menses 0 normal 1 surgery 2 other 7 not stopped 8 man . unknown (5)
A91	C7/36	Hysterectomy 0 no 1 yes 8 man . unknown (2)
A92	C7/37	Ovaries Removed 0 no 1 yes (one removed) 2 yes (two removed) 8 man . unknown (17)
A93	C7/38	Oral Contraceptive 0 no 1 yes (now) 2 yes (not now)

		8 man . unknown (9)
A94	C7/39	Premarin 3 no 4 yes (1 yr.) 5 yes (1 yr. +) 8 man . unknown (20)
A95	C7/40	Other (specify) 0 no 1 yes (now) 2 yes (not now) 8 man . unknown (17)
A96	C7/41	Smoked at Least 1 year 0 no 1 yes (now) 2 former . unknown (18)
A97	C7/42	Smokes Cigars 0 no 1 yes (now) 2 former . unknown (50)
A98	C7/43	Smokes Pipes 0 no 1 yes (now) 2 former . unknown (48)
A99	C7/44	Smokes Cigarettes 0 no 1 yes (now) 2 former . unknown (20)
A100	C7/45-46	Age Started Smoking Cigarettes Regularly 0 never smoked 7-52 known in years 88 does not smoke regularly . unknown (1693)
A101	C7/47-48	If Stopped, Age Stopped 0 not stopped 10-65 known in years 88 not applicable . unknown (1711)
A102	C7/49-50	Usual # of Cigarettes Smoked, Now or Ever 0 never smoked 1-90 known number of cigarettes . unknown (20)
A103	C7/51	Uses Filter 0 no 1 yes . unknown (81)

A104	C7/52	Inhales 0 no 1 yes . unknown (70)
A105	C7/53	Weight Compared With 1 Month Ago 0 about same 1 5+ lbs. lighter 2 5+ lbs. heavier . unknown (134)
A106	C7/54	Weight Compared With 1 Year Ago 0 about same 1 5+ lbs. lighter 2 5+ lbs. heavier . unknown (98)
A107	C7/55-57	Weight at Age 25 80-292 known in pounds . unknown (828)
A108	C7/58	Low Cholesterol Diet Last 2 Weeks 0 no 1 yes . unknown (23)
A109	C7/59	Low Calorie Diet Last 2 Weeks 2 no 3 yes . unknown (27)
A110	C7/60	Diabetic Diet Last 2 Weeks 4 no 5 yes . unknown (24)
A111	C7/61-62	Beer Intake 0-90 known in bottles cans glasses per week . unknown (50)
A112	C7/63-64	Wine Intake 0-50 known glasses per week . unknown (53)
A113	C7/65-66	Cocktail Intake 0-70 drinks per week . unknown (60)
A114	C7/67	Amount of Food Last 2 Days 0 same as usual 1 much more 2 much less . unknown (18)
A115	C7/68	Amount of Alcohol 0 same as usual 1 much more 2 much less . unknown (19)
A116	C7/69	Chest Discomfort

		0 no	
		1 yes	
		. unknown (7)	
A117	C7/70	Angina Pectoris (1st examiner)	
		0 no	
		1 yes	
		2 maybe	
		. unknown (2)	
		deleted - redundant, use most current soe file	
A118	C7/71	Coronary Insufficiency (1st examiner)	
		0 no	
		1 yes	
		2 maybe	
		. unknown (3)	
		deleted - redundant, use most current soe file	
A119	C7/72	Myocardial Infarction (1st examiner)	
		0 no	
		1 yes	
		2 maybe	
		. unknown (2)	
		deleted - redundant, use most current soe file	
A120	C7/73	Angina Pectoris (2nd examiner)	
		0 no	
		1 yes	
		2 maybe	
		3 no 2nd examiner	
		. unknown (2)	
		deleted - redundant, use most current soe file	
A121	C7/74	Coronary Insufficiency (2nd examiner)	
		0 no	
		1 yes	(NON RECORDED)
		2 maybe	
		3 no 2nd examiner	
		. unknown (2)	
		deleted - redundant, use most current soe file	
A122	C7/75	Myocardial Infarction (2nd examiner)	
		0 no	
		1 yes	
		2 maybe	
		3 no 2nd examiner	
		. unknown (2)	
		deleted - redundant, use most current soe file	
A123	C7/76	History of Congestive Heart Failure	
		0 no	
		1 yes	
		2 maybe	
		. unknown (47)	
		deleted - redundant, use most current soe file	
A124	C7/77	History of Heart Murmur	
		3 no	
		4 yes	

		5 maybe . unknown (38)
A125	C7/78	History of Enlarged Heart 6 no 7 yes 8 maybe . unknown (50)
A126	C7/79	Dyspnea on Exertion 0 no 1 yes, stairs or vigorous exercise 2 yes, rapid walking or moderate exercise 3 yes, any slight exertion . unknown (52)
A127	C7/80	Dyspnea Increase in Past 2 Years 0 no 1 yes 2 maybe . unknown (50)
A128	C7/81	Recent Orthopnea 3 no 4 yes 5 maybe . unknown (52)
A129	C7/82	Paroxysmal Nocturnal Dyspnea 6 no 7 yes 8 maybe . unknown (53)
A130	C7/83	Bilateral Ankle Edema 0 no 1 yes 2 maybe . unknown (53)
A131	C7/84	Nocturnal Cough or Wheezing 3 no 4 yes 5 maybe . unknown (53)
A132	C7/85	Examiner Believes C.H.F. 0 no 1 yes 2 maybe . unknown (43) deleted - redundant, use most current soe file
A133	C7/86	Examiner Believes Stroke 0 no 1 yes 2 maybe . unknown (8) deleted - redundant, use most current soe file

A134	C7/87	Examiner Believes TIA Preceded 0 no 1 yes 2 maybe . unknown (8) deleted - redundant, use most current soe file
A135	C7/88	History of Discomfort in Lower Limbs 0 no 1 yes . unknown (21)
A136	C7/89	Examiner Believes I.C. 0 no 1 yes . unknown (14) deleted - redundant, use most current soe file
A137	C8/9-11	Complete Blood Count 0-998 known . unknown (589)
A138	C8/12-14	White Blood Count 25-172 known . unknown (550)
A139	C8/15-17	Red Blood Count 276-853 known . unknown (534)
A140	C8/18-20	H.G.B. 76-203 known in gm . unknown (534)
A141	C8/21-23	H.C.T. 43-617 known in percent . unknown (325)
A142	C8/24-26	M.C.V. 57-116 known in cubic microns . unknown (534)
A143	C8/27-29	M.C.H. 160-408 known in micro-micrograms . unknown (534)
A144	C8/30-32	M.C.H.C. 276-404 known in percent . unknown (534)
A145	C9/5-7	Ventricular Rate 32-140 known in beats per minute . unknown (2)
A146	C9/8-9	P-R Interval 7-30 known in hundreths of second . unknown (5)

A147	C9/10-11	QRS Interval 4-16 known in hundreths of second . unknown (2)
A148	C9/12-13	QT Interval 26-52 known in hundreths of second . unknown (3)
A149	C9/14-17	A QRS 0-2150 known in degrees (left most number in this field is coded as follows:) 2= positive angle 1= negative angle 0= zero angle . unknown (2)
A150	C9/18	Right Intraventricular Block 0 no 1 complete 2 incomplete 3 Indeterminate . unknown (2)
A151	C9/19	Left Intraventricular Block 0 no 1 complete 2 incomplete 3 indeterminate . unknown (2)
A152	C9/20	Hemiblock 0 no 1 LAH 2 LPH . unknown (2)
A153	C9/21	Bifascicular Block 0 no 1 yes . unknown (2)
A154	C9/22	Incomplete Atrioventricular Block 0 no 1 first degree 2 second degree . unknown (2)
A155	C9/23	Complete Atrioventricular Block 0 no 1 nodal 2 trifascicular . unknown (2)
A156	C9/24	Wolff-Parkinson-White Syndrome 0 no 1 yes . unknown (5)
A157	C9/25	Premature Beats

		0 no
		1 atrial
		2 ventricular
		3 nodal
		4 combination
		. unknown (2)
A158	C9/26	Atrial Fibrillation
		0 no
		1 yes
		. unknown (2)
A159	C9/27	Atrial Flutter
		0 no
		1 yes
		. unknown (2)
A160	C9/28	Other Arrhythmia
		0 no
		1 yes
		2 maybe
		. unknown (2)
A161	C9/29	Other ECG Abnormality
		0 no
		1 digitalis effect
		2 other
		. unknown (2)
A162	C9/30	Taking Digitalis or Quinidine
		0 no
		1 yes
		2 maybe
		. unknown (2)
A163	C9/31	Myocardial Infarction
		0 no
		1 yes
		2 maybe
		. unknown (2)
A164	C9/32	Left Ventricular Hypertrophy
		0 no
		1 yes
		2 maybe
		. unknown (2)
A165	C9/33	Non-Specific T-Wave Abnormality
		0 no
		1 yes
		2 maybe
		. unknown (3)
A166	C9/34	Non-Specific S-T Segment Abnormality
		0 no
		1 yes
		2 maybe
		. unknown (3)
A167	C9/35	ECG Clinical Reading
		0 normal
		1 abnormal
		2 doubtful



. unknown (3)

A168	CALCULATED	Age at First Exam 5-70 known in years no unknowns
*** VERSION 2	08-21-2007	deleted - redundant, use basic file
A169	CALCULATED	Age at First Exam 70-841 known in months no unknowns
*** VERSION 2	08-21-2007	deleted - redundant, use basic file
A170		First Evidence of CHD 0 no CHD evidence 01 pre-existing CHD at exam 1 definite AP definite CI definite MI-History only definite MI-History and pos- sible MI-ECG possible MI-ECG only definite CI-ECG only definite CI-History only deleted - redundant, use most current soe file
A171		Definite AP (Not Due to RHD, LHD, or AR) 0 none 01 pre-existing deleted - redundant, use most current soe file
A172		Definite CI-ECG and CI-History 0 none 01 pre-existing deleted - redundant, use most current soe file
A173		Definite MI-ECG (With or Without History or Enzymes) 0 none 01 pre-existing deleted - redundant, use most current soe file
A174		Definite Transaminase and MI-History Also 0 none 01 pre-existing deleted - redundant, use most current soe file
A175		Definite MI 0 none 01 pre-existing deleted - redundant, use most current soe file
A176		Unrecognized MI 0 none 01 pre-existing deleted - redundant, use most current soe file
A177		AP Uncomplicated 0 none 01 pre-existing deleted - redundant, use most current soe file

A178 CHD Other Than AP  
0 none  
01 pre-existing  
deleted - redundant, use most current soe file

A179 CVA Definite, Probable, Questionable  
0 none  
01 pre-existing CVA  
deleted - redundant, use most current soe file

A180 Definite Intermittent Claudication  
0 none  
01 pre-existing IC at exam 1  
deleted - redundant, use most current soe file

A181 Definite Congestive Heart Failure  
0 none  
01 pre-existing CHF (definite,  
probable, or questionable)  
deleted - redundant, use most current soe file

A182 CALCULATED Alcohol Index  
FROM THE FOLLOWING COMPUTING FORMULA:  
N = ((0.570XHIGHBALLS)+(0.444XBEERS)  
+(0.400XWINE))  
IF N<=1 AND NOT=0 THEN EQUIVALENT=1  
ELSE EQUIVALENT = ROUND(N)  
0-50 known in ozs. per week  
. unknown (62)

\*\*\*\*Version 2 9-25-2007 deleted - calculated variable

A183 CALCULATED Quetelet Index (Kg/m squared)  
13.516-54.928 known  
. unknown (1)

\*\*\*\*Version 2 9-25-2007 deleted - calculated variable

\* COMPUTED ONLY WHEN ALL 3 ALCOHOLIC BEVERAGE VALUES ARE KNOWN.

dc 8/24/06

\*\*\*\*\*

\*\*\* Version 1 02-23-2007 Added note to A24:  
Not measured on the majority of participants

\*\*\* Version 2 08-21-2007 deleted A168 and A169  
redundant use basic file

09-25-2007 deleted A182 and A182  
calculated variables