Atherosclerosis Risk in Communities Study

EXAM 1

Derived Variable Dictionary

Version 13

June 2010

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Variables are in DERIVE13 unless otherwise noted

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1. Alcohol Use

1.1 DRNKR01 (Drinker Status)

DRNKR01		Drinker Status	
N	Value	Description
8768	1	Current drinker
2993	2	Former drinker
3951	3	Never drinker
8	4	Unknown
72		Missing

Table of Assignment of Values to DRNKR01

DTIA91: HAVE YOU EVER CONSUMED ALCOHOLIC BEVERAGES?	DTIA90: DO YOU PRESENTLY DRINK ALCOHOLIC BEVERAGES?		
	Y	N	Missing
Y	1	2	4 (d)
N	Missing (a)	3	3 (b)
Missing	1	4 (c)	Missing

a) Bad data (contradictory answers)

b) Even though Q90 is not answered, Q91 clearly defines the person as a never drinker

c) Could be either former or never drinker

d) Could be either former or current drinker

1.2. ETHANL01 (Discontinued)

1.3. ETHANL02 (Discontinued)

1.4. ETHANL03 (Usual Ethanol Intake in g/wk)

ETHANL03		Usual Ethanol Intake in g/wk
N	Value	Description
15686	Range	0 - 1856 (median=0 mean=42.5 std=97.0)
106		Missing

i. Current drinker   (DRNKR01 = 1)

ETHANL03 = [(DTIA96) x 10.8]
+ [(DTIA97) x 13.2]
+ [(DTIA98) x 15.1]

ii. Former or never drinker

[(DRNKR01 = 2) OR (DRNKR01 = 3)]

ETHANL03 = 0

iii. Any of the following could not be determined:

    a.   Drinking status
    b.   Amount of wine
    c.   Amount of beer
    d.   Amount of hard liquor

ETHANL03 = missing

DTIA96: Number of glasses of wine per week

    {4 oz. glasses; round down}

DTIA97: Number of bottles/cans of beer per week

    {12 oz. bottles/cans; round down}

DTIA98: Number of drinks of hard liquor per week

    {1.5 oz. shots; round down}

1.5. CURDRK02 (Current Drinker)

CURDRK02		Current Drinker
N	Value	Description
72	T	Missing
6952	0	No
8768	1	Yes

CURDRK02 is a categorical variable that takes values according to the definition table below:

CURDRK02	DTIA90	DTIA91
1	Y	Y or Missing
0	N	any
	Missing	N
	Y	N
X T	Missing	Not N

DTIA90:   Do you presently drink alcoholic beverages?   Yes, No

DTIA91:   Have you ever consumed alcoholic beverages: Yes, No

1.6. FORDRK01 (Former Drinker)

FORDRK01		Former Drinker
N	*Value*	*Description*
80	T	
12719	0	No
2993	1	Yes

FORDRK01 is a categorical variable that takes values according to the definition table below:

FORDRK01	DTIA90	DTIA91
1	N	Y
	Y	Y or Missing
0	N or Missing	N
	N	Missing
	Y	N
X T	Missing	Y or .

DTIA90:   Do you presently drink alcoholic beverages?   Yes, No

DTIA91:   Have you ever consumed alcoholic beverages?   Yes, No

1.7. EVRDRK01 (Ever Drinker)

EVRDRK01		Ever Drinker
N	*Value*	*Description*
12	T	
3951	0	No
11761	1	Yes
68		Missing

EVRDRK01 is a categorical variable that takes values according to the definition table below:

EVRDRK01	DTIA90	DTIA91
1	Y	Missing
	any	Y
0	not Y	N
X T	Y	N
	not Y	Missing

DTIA90:   Do you presently drink alcoholic beverages?   Yes, No

DTIA91:   Have you ever consumed alcoholic beverages?   Yes, No

2. Anthropometry

2.1. BMI01 (Body Mass Index in Kg/m2)

BMI01		Body Mass Index In Kg/(m2)
N	Value	Description
15767	Range	14.202380458 - 65.910442918 (median=26.881802083 mean=27.7123478281 std=5.3738744585)
25		Missing

[Weight (lbs) / 2.20] / [height (cm) / 100]^2

BMI01 $= (ANTA04 / 2.20) / (ANTA01 / 100)^2$

= missing, if either or both measure is missing

2.2. SIT_HT01 (Sitting Height) in cm

SIT_HT01		Sitting Height In cm
N	Value	Description
15762	Range	67 - 141 (median=88 mean=88.5 std=4.8)
30		Missing

[Unadjusted sitting height (cm)] - [Stool height (cm)]

SIT_HT01 = ANTA02 - ANTA03

= missing, if either or both measure is missing

2.3. MNTRCPO1 (Mean Triceps) in mm

MNTRCP01		Mean Triceps In mm
N	Value	Description
15763	Range	2.5 - 67 (median=24.5 mean=25.21 std=10.15)
29		Missing

Mean of both Triceps measurements (mm)

MNTRCPO1 = Mean (ANTA05A, ANTA05B)

Where the mean function is the mean for the non-missing values. It is missing if all values are missing.

2.4. MNSSCP01 (Mean Subscapular) in mm

MNSSCP01		Mean Subscapular In mm
N	Value	Description
15719	Range	3.5 - 67 (median=22.5 mean=24.72 std=11.77)
73		Missing

Mean of both Subscapular measurements (mm)

MNSSCP01 = Mean (ANTA06A, ANTA06B)

Where the mean function is the mean for the non-missing values. It is missing if all values are missing.

2.5. WSTHPR01 (Waist-to-Hip Ratio)

WSTHPR01		Waist-To-Hip Ratio
N	Value	Description
15764	Range	0.4905660377 - 1.393442623 (median=0.935483871 mean=0.9261984930 std=0.0781436181)
28		Missing

WSTHPR01 = ANTA07A / ANTA07B

ANTA07A: Girth of Waist in cm

ABTA07B: Girth of Hip in cm

3. Disease Prevalence

3.1 RPOSMI01 (Rose Possible Myocardial Infarction)

RPOSMI01		Rose Possible Myocardial Infarction	
N		*Value*	*Description*
32		T	
14719		0	Possible MI by Rose questionnaire = No.
1040		1	Possible MI by Rose questionnaire = Yes.
1			Missing

Table of assignment of values to RPOSMI01

	MHXA04	MHXA25
RPOSMI01 = 1	Y	Y
RPOSMI01 = 0	Y	N
	N	missing or N(a)
RPOSMI01 = .	Y	missing
	missing	any
	N	Y(a)

Footnote to the Table:

      (a) contradictory to the skip pattern

Questionnaire Items:

MHXA04: Have you ever had any pain or discomfort in your chest? Y, N

MHXA25: Have you ever had a severe pain across the front of your chest lasting for half an hour or more? Y, N

Algorithm:

1. If (MHXA04 = Y) and
   (MHXA25 = Y)
   then set RPOSMI01 =1.   (Positive)

2. If [(MHXA04 = Y) and
   (MHXA25 = N)] or

[(MHXA04 = N) and

(MHXA25 =N or MHXA25 = missing)]

then set RPOSMI01 = 0.   (Negative)

3. [(MHXA04 - Y) and   (MHXA25 = missing)]   or [(MHXA04

= N)   and   (MHXA25 =Y)]   or

[(MHXA04 = missing)]

then set RPOSMI01 to missing.

MHXA04: Have you ever had any pain or discomfort in your chest? Y, N

MHXA25: Have you ever had a severe pain across the front of your chest lasting for half an hour or more? Y, N

3.2   RANGNA01 (Rose Angina)

RANGNA01		Rose Angina
N	Value	Description
808	1	Negative
14947	4	Positive
37		Missing

Algorithm:

1. Set RANGNA01 to missing.

2. If   MHXA04 = Y   and

(MHXA05 = Y or MHXA06 = Y)   and

MHXA07 = S   and

MHXA08 = R   and

MHXA09 = L   and

[(MHXA10B = Y or MHXA10A = Y)   or

(MHXA10D = Y and MHXA10C = Y)]

then set RANGNA01 = 1.   (Positive)

3. If   MHXA04 = N   or

[(MHXA05 = N   or

(MHXA05 = H   and MHXA06 = N)]   or

MHXA07 = C   or

MHXA08 = N   or

MHXA09 = M   or

[(MHXA10B = N and MHXA10A = N)   and

(MHXA10D = N   or   MHXA10C =N)

then set RANGNA01 = 4.   (Negative)

MHXA04:   Have you ever had any pain or discomfort in your chest? Y, N

MHXA05:   Do you get it when you walk uphill or hurry? Y, N, H (Never hurries or walks up hill)

MHXA06:   Do you get it when you walk at an ordinary pace on the level? Y, N

MHXA07:   What do you do if you get it while you are walking? S (Stop or slow down), C (Carry on)
{Record S if subject carries on after taking nitrogycerin}

MHXA08:   If you stand still, what happens to it? R (Relieved), N (Not Relieved)

MHXA09:   How soon. . .   10 minutes or less   L

More than 10 minutes   M

Will you show me where it was?

MHXA10A: Sternum (upper or middle)   Y, N

MHXA10B: Sternum (lower)   Y, N

MHXA10C: Left anterior chest   Y, N

MHXA10D: Left arm   Y, N

3.3   ROSEIC03 (Rose Intermittent Claudication)

ROSEIC03		Rose Intermittent Claudication
N	Value	Description
48	T	
15618	0	Rose Intermittent Claudication=No
126	1	Rose Intermittent Claudication=Yes

This is a categorical Visit 1 variable based on the definition found in <<Cardiovascular Survey Methods< by Rose et al. The questionnaire items used in determining the values of ROSEIC03 are MHXA33 through MHXA41.

Table of assignment of values to ROSEIC03

	MHXA 33	MHXA 34	MHXA 35	MHXA 36	MHXA 37	MHXA 38	MHXA 39	MHXA 40	MHXA 41
ROSEIC03 = 1	Y	N	C	Y	any	N	S	R	L
	Y	N	C	H	Y	N	S	R	L
ROSEIC03 = 0	N	any	any	any	any	any	any	any	any
	Y	Y	any	any	any	any	any	any	any
	Y	N	N	any	any	any	any	any	any
	Y	N	C	N	any	any	any	any	any
	Y	N	C	Y,H	any	Y	any	any	any
	Y	N	C	Y,H	any	N	C	any	any
	Y	N	C	Y,H	any	N	S	N	any
	Y	N	C	Y,H	any	N	S	R	M
ROSEIC01 = .	any other pattern of response								

Questionnaire Items:

MHXA33: Do you get pain in either leg on walking? Y, N[*]

MHXA34: Does this pain ever begin when you are standing still or sitting? Y[*], N

MHXA35: In what part of your leg do you feel it?

> C (Pain includes calf/calves), N[*] (Pain does not include calf/calves)

MHXA36: Do you get it if you walk uphill or hurry?

> Y, N[*], H (Never hurries or walks uphill)

MHXA37: Do you get it if you walk at an ordinary pace on the level?

> Y, N

MHXA38: Does the pain ever disappear while you are walking?

> Y[*], N

MHXA39: What do you do if you get it when you are walking?

> S (Stop or slow down), C[*] (Carry on)

MXHA40: What happens to it if you stand still?

R (Relieved), N[*] (Not relieved)

MHXA41: How soon?

L (10 minutes or less), M (More than 10 minutes)

[*]If patient indicates this response, no further questions in this section need be asked.

3.4 SYMCHD03 (Symptomatic Coronary Heart Disease)

SYMCHD03		Symptomatic Coronary Heart Disease
N	Value	Description
14238	0	Symptomatic Coronary Heart Disease = No
1388	1	Symptomatic Coronary Heart Disease = Yes
166		Missing

Table of assignment of values to SYMCHD03

	RANGNA01	HXOFMI02	PHEA06	PHEA07A	PHEA08	PHEA09A
SYMCHD03 = 1	1	any	any	any	any	any
	any	1	any	any	any	any
	any	any	not N	Y	any	any
	any	any	any	any	not N	Y
SYMCHD03 = 0	4	0	any	N	any	N
					N	not Y
			N	not Y	any	N
					N	not Y
SYMCHD03 = .T	missing	not 1	any	not Y	any	not Y
	not 1	missing	any	not Y	not N	not Y
	not 1	not 1	N	Y	any	not Y
			Y	missing		
	not 1	not 1	any	not Y	N	Y
					Y	missing

SYMCHD03 = Any other combination of values

Variables used in this definition:

RANGNA01: Rose Angina

3.5 QWAVE04A (Diagnostic Q-wave present from Adjudicated ECG Data)

QWAVE04A		Diagnostic Q-Wave Present From Adjudicated ECG Data
N	Value	Description
91	T	Missing value
15407	0	Diagnostic Q-wave present = No
186	1	Diagnostic Q-wave present = Yes
108		Missing

In this definition, diagnostic Q-wave corresponds to Minnesota codes in 1-1-x to 1-2-x, but without ST-T changes (Minnesota codes 4 or 5). This numeric Visit 1 variable does not correspond with definitions provided in the ARIC ECG manual.

Table of assignment of values to QWAVE04A

	ECGMAFLG	ECGMA09[*]	ECGMA10[*]	ECGMA11[*]
QWAVE04A = 1	1	11-25 OR 27	any	any
		any	11-25 OR 27	any
		any	any	11-25 or 27
QWAVE04A = 0	1	nonmiss & not 11-25 & not 27	nonmiss & not 11-25 & not 27	nonmiss & not 11-25 & not 27
QWAVE04A = .T	0	any	any	any
QWAVE04A = .	Any other combination of values			

[*]The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

Variable	Description	Range of Possible Values
ECGMAFLG	Whether ECG Form present or not	
ECGMA09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGMA10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGMA11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x

3.6 QWAVE07A (Major Q-Wave present with no 7-1-1, 7-1-2, or 7-4, from Adjudicated ECG Records

QWAVE07A			Major Q-Wave present with no 7-1-1, 7-1-2, or 7-4, from Adjudicated ECG Records
N		Value	Description
91		M	Missing value
6		T	Missing value
15516		0	Diagnostic Q-wave present = No
71		1	Diagnostic Q-wave present = Yes
108			Missing

In this definition, major Q-waves correspond to Minnesota codes 1-1-x. This numeric Visit 1 variable is based on definition A in the ARIC ECG Manual.

Table of assignment of values to QWAVE07A

	ECGMAFLG	ECGMA09[*]	ECGMA10[*]	ECGMA11[*]	ECGMA24[**]
QWAVE07A = 1	1	11-17	any	any	nonmiss & not 4 and not 1 or 11
		any	11-17	any	
		any	any	11-17	
QWAVE07A = 0	1	nonmiss & not 11-17	nonmiss & not 11-17	nonmiss & not 11-17	any
QWAVE07A = .T	1	11-17	any	any	
		any	11-17	any	4 or 1 or 11 or missing
		any	any	11-17	
QWAVE07A = .M	0	any	any	any	any
QWAVE07A = .	Any other combination of values				

[*]The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

[**] A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

Variable	Description	Range of Possible Values
ECGMAFLG	Whether composite ECG Record with Adjudicated Values is present or not	
ECGMA09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGMA10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGMA11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x
ECGMA24	Ventricular Conduction Defect	7-1-1 through 7-8

3.7 QWAVEM07A (Major Q-wave present with no 7-1-1, 7-1-2, or 7-4, from Original Machine Coded ECG Records

QWAVEM07		*Major Q-wave present with no 7-1-1, 7-1-2, or 7-4, from Original Machine Coded ECG Records*
N	*Value*	*Description*
91	M	Missing value
18	T	Missing value
15451	0	Major Q-wave present = No
118	1	Major Q-wave present = Yes
114		Missing

In this definition, major Q-waves correspond to Minnesota codes 1-1-x. This numeric Visit 1 variable is based on definition A in the ARIC ECG Manual.

Table of assignment of values to QWAVEM07

	ECGBFLAG	ECGB09[*]	ECGB10[*]	ECGB11[*]	ECGB24[*]
QWAVEM07 = 1	1	11-17	any	any	nonmiss & not 4 and not 1 or 11
		any	11-17	any	
		any	any	11-17	
QWAVEM07 = 0	1	nonmiss & not 11-17	nonmiss & not 11-17	nonmiss & not 11-17	any
QWAVEM07 = .T	1	11-17	any	any	
		any	11-17	any	4 or 1 or 11 or missing
		any	any	11-17	
QWAVEM07 = .M	0	any	any	any	any

QWAVEM07 = **.**   Any other combination of values.

*The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

** A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

Variable	Description	Range of possible values
ECGBFLAG	Whether composite ECG Record with Adjudicated Values is present or not	
ECGB09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGB10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGB11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x
ECGB24	Ventricular Conduction Defect	7-1-1 through 7-8

3.8 QWAVE08B (Minor Q-Wave present with ST or T codes and no 7-1-1, 7-1-2, or 7-4 codes from Adjudicated ECG Records)

QWAVE08B		Minor Q-Wave present with ST or T codes and no 7-1-1, 7-1-2, or 7-4 codes from Adjudicated ECG Records	
N	Value	Description
91	M	Missing value
1	T	Missing value
15543	0	Minor Q-wave present = No.
44	1	Minor Q-wave present = Yes.
113		Missing

In this definition, minor Q-wave corresponds to Minnesota codes 1-2-x, ST segment corresponds to codes 4-x, and T-wave corresponds to definition B in the ARIC ECG Manual.

Table of assignment of values to QWAVE08B

	ECGMAFLG	ECGMA09, 10, 11[*]	ECGMA12 - ECGMA17[**]		ECGMA24[+]
QWAVE08B = 1	1	ECGMA09= (21-25, 27, OR 28) OR ECGMA10= (21-25, 27, OR 28) OR ECGMA11= (21-25, 27, OR 28)	ECGMA12 = 2, 11, OR 12		NONMISS AND NOT (1, 4, OR 11)
			ECGMA13 = 2, 11 or 12		
			ECGMA14 = 2, 11 or 12		
			ECGMA15 = 1 or 2		
			ECGMA16 = 1 or 2		
			ECGMA17 = 1 or 2		
QWAVE08B = 0	1	NONMISS & NOT (21-25, 27, OR 28)	ANY		ANY
		any	(ECGMA12, ECGMA13, and ECGMA14 not missing & not 2, 11, & 12) and (ECGMA15, ECGMA16, and ECGMA17 not 1 & 2 and not missing)		Any
QWAVE08B = .T	1	Values of ECGMA09-11 and ECGMA12-17 that would give QWAVE08B = 1			1, 4, 11, or missin
QWAVE08B = .M	0	any	any		any
QWAVE08B = .	Any other combination of values				

*The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

**The values for these variables correspond to the last one or two digits of the Minnesota codes: that is, for variables ECGMA12-ECGMA14, the initial 4 contained in the Minnesota codes has been dropped, and for variables ECGMA15-ECGMA17, the initial 5 contained in the Minnesota codes has been dropped.

+A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

Variable	Description	Range of Possible Values
ECGMAFLG	Whether composite ECG Record with Adjudicated Values is present or not	
ECGMA09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGMA10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x

ECGMA11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x
ECGMA12	ST Junction & Segment Depression I, aVL, V6	4-1-1 through 4-4
ECGMA13	ST Junction & Segment Depression II, III, aVF	4-1-1 through 4-4
ECGMA14	ST Junction & Segment Depression V1-V5	4-1-1 through 4-4
ECGMA15	T Wave I, aVL, V6	5-1 through 5-4
ECGMA16	T Wave II, III, aVF	5-1 through 5-4
ECGMA17	T Wave V1-V5	5-1 through 5-4
ECGMA24	Ventricular Conduction Defect	7-1-1 through 7-8

3.9 QWVEM08B (Minor Q-wave present with ST or T codes and no 7-1-1. 7-1-2, or 7-4 codes, from Original Machine Coded ECG Records)

QWVEM08B		Minor Q-wave present with ST or T codes and no 7-1-1. 7-1-2, or 7-4 codes, from Original Machine Coded ECG Records
N	*Value*	*Description*
91	M	Missing value
15531	0	Minor Q-wave present = No.
57	1	Minor Q-wave present = Yes.
113		Missing

In this definition, minor Q-wave corresponds to Minnesota codes 1-2-x, ST segment corresponds to codes 4-x, and T-wave corresponds to codes 5-1 or 5-2. This numeric Visit 1 variable is based on definition B in the ARIC ECG Manual. The variable assumes the following values according to the table below.

Table of assignment of values to QWVEM08B

	ECGBFAG	ECGB09, 10, 11[*]	ECGB12-ECGB17[**]	ECGB24[+]
QWVEM08B = 1	1	ECGB09= (21-25, 27, or 28) or ECGB10= (21-25, 27, or 28) or ECGB11= (21-25, 27, or 28)	ECGB12 = 2, 11 or 12	nonmiss and not (1,4,or 11)
			ECGB13 = 2, 11 or 12	
			ECGB14 = 2, 11 or 12	
			ECGB15 = 1 or 2	
			ECGB16 = 1 or 2	
			ECGB17 = 1 or 2	
QWVEM08B = 0	1	nonmiss & not (21-25, 27, or 28)	any	any
			(ECGB12, ECGB13, and ECGB14 not missing & not 2, 11, & 12) and (ECGB15, ECGB16, and ECGB17 not missing & not 1 & 2)	any
QWVEM08B = .T	1	Values of ECGB09-11 and ECGB12-17 that would give QWVEM08B = 1		1, 4, 11, or missing
QWVEM08B = .M	0	any	any	any
QWVEM08B = .	Any other combination of values			

*The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

** The values for these variables correspond to the last one or two digits of the Minnesota codes: that is, for variables ECGB12-ECGB14, the initial 4 contained in the Minnesota codes has been dropped, and for variables ECGB15-ECGB17, the initial 5 contained in the Minnesota codes has been dropped.

+A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

Variable	Description	Range of Possible Values
ECGBFLAG	Whether original machine coded ECG is present or not	
ECGB09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x and 1-3-x
ECGB10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x and 1-3-x
ECGB11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x and 1-3-x
ECGB12	ST Junction & Segment Depression I, aVL, V6	4-1-1 through 4-4
ECGB13	ST Junction & Segment Depression II, III, aVF	4-1-1 through 4-4
ECGB14	ST Junction & Segment Depression V1-V5	4-1-1 through 4-4
ECGB15	T Wave I, aVL, V6	5-1 through 5-4
ECGB16	T Wave II, III, aVF	5-1 through 5-4
ECGB17	T Wave V1-V5	5-1 through 5-4
ECGB24	Ventricular Conduction Defect	7-1-1 through 7-8

3.10 PRVCHD05 (Prevalent Coronary Heart Disease)

PRVCHD05		Prevalent Coronary Heart Disease
N	Value	Description
14682	0	Coronary Heart Disease = No.
766	1	Coronary Heart Disease = Yes.
344		Missing

Table of assignment of values to PRVCHD05

	ECGMI04	HX0FMI02	PHEA06	PHEA07A	PHEA08	PHEA09A
PRVCHD05 = 1	1	any	any	any	any	any
	any	1	any	any	any	any
	any	any	not N	Y	any	any
	any	any	any	any	not N	Y
PRVCHD05 = 0	0	0	any	N	any	N
					N	not Y
			N	not Y	any	N
					N	not Y
PRVCHD05 = .T	missing	not 1	any	not Y	any	not Y
	not 1	missing	any	not Y	not N	not Y
	not 1	not 1	N	Y	any	not Y
			Y	missing		
	not 1	not 1	any	not Y	N	Y
					Y	missing
PRVCHD05 = .	Any other combination of values					

ECGMI04:   MI from adjudicated Visit 1 ECG data.

HXOFMI02: History of Myocardial Infarction.

PHEA06:   Heart or arterial surgery? Y, N

PHEA07A: Coronary Bypass. Y, N

PHEA08:   Balloon angioplasty? Y, N

PHEA09A: Angioplasty of Coronary Artery (ies). Y, N

3.11 PREVMI05 (Prevalent MI from ECG or Medical History)

PREVMI05		Prevalent MI from ECG or Medical History
N	Value	Description
236	T	Missing value
14903	0	MI from ECG or Medical History = No.
653	1	MI from ECG or Medical History = Yes.

Table of assignment of values to PREVMI05

	ECGMI04	HXOFMI02
PREVMI05 = 1	1	any
	any	1
PREVMI05 = 0	0	0
PREVMI05 = .T	0	missing
	missing	0
	missing	missing
PREVMI05 = .	Any other combination of values	

ECGMI04:   Prevalent Myocardial Infarction from Electrocardiograms

HXOFMI02: History of Myocardial Infarction.

3.12 MDDXMI02 (MD Diagnosed Myocardial Infarction)

MDDXMI02		MD Diagnosed Myocardial Infarction
N	Value	Description
58	T	Missing value
15445	0	Reported MD Diagnosed MI=No
288	1	Reported MD Diagnosed MI=Yes
1		Missing

Table of assignment of values to MDDXMI02

	MHXA04	MHXA25	MHXA26	MHXA27
MDDXMI02 = 1	Y	Y	Y	H
MDDXMI02 = 0	Y	Y	Y	0
	Y	Y	N	missing
	Y	N	missing	missing
	N	missing	missing	missing
MDDXMI02 = .T	missing	any	any	any
	Y	missing	any	any
	Y	Y	Y	missing
	Y	Y	missing	any
	Y	N	Y or N	any
	Y	N	missing	H or O
	N	Y or N	any	any
	N	missing	Y or N	any
	N	missing	missing	H or O

MDDXMI02 = . Any other pattern of response

MHX04: Have you ever had any pain or discomfort in your chest? Y, N

MHXA25: Have you ever had a severe pain across the front of your chest lasting for half an hour or more? Y, N

MHXA26: Did you see a doctor because of this pain? Y, N

MHXA27: What did he say it was? H (Heart Attack), O (Other Disorder)

MDDXMI02 (MD Diagnosed Myocardial Infarction)

Algorithm:

1. If   (MHXA04 = Y)   and   (MHXA25 = Y)   and

    (MHXA26 = Y)   and   (MHXA27 = H)

    then set MDDXMI02 = 1   (Positive)

2. If   [(MHXA04 = Y and MHXA25 = Y)   and

    (MHXA26 = Y and MHXA27 = O)]   or

    [(MHXA04 = Y and MHXA25 = Y)   and

    (MHXA26 = N and MHXA27 = missing)]   or

    [(MHXA04 = Y and MHXA25 = N)   and

    (MHXA26 = missing and MHXA27 = missing)]   or

    [(MHXA04 = N and MHXA25 = missing)   and

    (MHXA26 = missing and MHXA27 = missing)   and

    then set MDDXMI02 = 0.   (Negative)

    [(MHXA04 = missing)]   or

    [(MHXA04 = Y) and (MHXA25 = missing)]   or

    [(MHXA04 = Y) and (MHXA25 = Y)   and

    (MHXA26 = Y) and (MHXA27 = missing)]   or

    [(MHXA04 = Y) and (MHXA25 = Y) and (MHXA26 = missing)]   or

    [(MHXA04 = Y) and (MHXA25 = N)   and

    (MHXA26 = Y or MHXA26 = N)]   or

    [(MHXA04 = Y) and (MHXA25 = N)   and

    (MHXA26 = missing) and (MHXA27 = H or MHXA27 = 0)] or

    [(MHXA04 = N) and (MHXA25 = Y or MHXA25 = N)]   or

    [(MHXA04 = N) and (MHXA25 = missing)   and

    (MHXA26 = Y or MHXA26 = N)]   or

    [(MHXA04 = N) and (MHXA25 = missing)   and

(MHXA26 = missing) and (MHXA27 = H or MHXA27 = 0)]

then set MDDXMI02 to missing.

MHXA04: Have you ever had any pain or discomfort in your chest? Y, N

MHXA25: Have you ever had a severe pain across the front of your chest lasting for half an hour or more? Y, N

MHXA26: Did you see a doctor because of this pain? Y, N

MHXA27: What did he say it was? H (Heart Attack), O (Other Disorder)

3.13 HXOFMI02 (History of Myocardial Infarction)

HXOFMI02		History Of Myocardial Infarction	
N		Value	Description
60		T	Missing value
15117		0	Self or Physician-Reported Heart Attack = No
615		1	Self or Physician-Reported Heart Attack = Yes

Table of assignment of values to HXOFMI02

	MDDXMI02	MHXA28
HXOFMI02 = 1	1	any
	any	Y
HXOFMI02 = 0	0	N or U
HXOFMI02 = .T	Not 1	missing
	missing	nonmiss & Not Y

HXOFMI02:   = **.** Any other combination of values

MDDXMI02:   MD Diagnosed Myocardial Infarction.

MHXA28:   Have you ever had a heart attack for which you were hospitalized one week or more?
  Y, N, U (Unknown)

3.14 ECGMI04 (Prevalent Myocardial Infarction from Adjudicated Electrocardiograms)

ECGMI04		Prevalent Myocardial Infarction from Adjudicated Electrocardiograms
N	*Value*	*Description*
211	T	Missing value
15469	0	MI from ECG=No
112	1	MI from ECG=Yes

Table of assignment of values to ECGMI04

	QWAVE07A	QWAVE08B
ECGMI04 = 1	1	any
	any	1
ECGMI04 = 0	0	0
ECGMI04 = .T	missing	not 1
	not 1	missing
ECGMI04 = .	Any other combination of values	

QWAVE07A: Major Q-Wave present with no 7-1-1 or 7-4.

QWAVE08B: Minor Q-Wave present with S or ST and no 7-1-1 or 7-4.

3.15 MACHMI02 (Prevalent Myocardial Infarction from Original Machine Coded Electrocardiograms)

MACHMI02		Prevalent Myocardial Infarction from Original Machine Coded ECGs
N	*Value*	*Description*
223	T	Missing value
15395	0	MI from ECG=No
174	1	MI from ECG=Yes

Table of assignment of values to MACHMI02

	QWAVEM07	QWVEM08B
MACHMI02 = 1	1	any
	any	1
MACHMI02 = 0	0	0
MACHMI02 = .T	missing	not 1
	not 1	missing
MACHMI02 = .	Any other combination of values	

QWAVEM07: Major Q-wave present with no 7-1-1 or 7-4.

QWVEM08B: Minor Q-wave present with S or ST and no 7-1-1 or 7-4.

3.16 DIABTS02 (Diabetes - Lower Cutpoint 140 mg/dL)

DIABTS02		Diabetes - Lower Cutpoint 140 mg/dL	
N	*Value*	*Description*	
23	T	Diabetes=Missing	
14093	0	Diabetes=No	
1561	1	Diabetes=Yes	
115		Missing	

Table of assignment of values to DIABTS02

	GLUCOS01	FAST0802	HOM10E	MSRA02	MSRA08F
DIABTS02 = 1	>=200	any	any	any	any
	>=140	1	any	any	any
	any	any	Y	any	any
	any	any	any	not T	Y
DIABTS02 = 0	not missing and <140	any	N or U	any	not Y
DIABTS02 = .T	any	0	not Y	any	not Y
	not >= 140	any	missing	any	not Y
	not >= 140	any	not Y	not T	missing

GLUCOS01: Blood Glucose Level in mg/dL

FAST0802: 8 hours or more of fasting time

HOM10E: Diabetes (Sugar in Blood)? Y, N, U (Unsure).

MSRA02[*]:   Took no medications in past 2 weeks? T (no meds) F

MSRA08F: Were any of the medications you took for Diabetes or high blood sugar?

Y, N, U (Unknown)

[*]A value of T on this item skips the patient over MSRA08F.

3.17 DIABTS03 (Diabetes - Lower Cutpoint 126 mg/dL)

DIABTS03		Diabetes - Lower Cutpoint 126 mg/dL	
N		Value	Description
32		T	Diabetes=Missing
13774		0	Diabetes=No
1870		1	Diabetes=Yes
116			Missing

Table of assignment of values to DIABTS03

	GLUCOS01	FAST0802	HOM10E	MSRA02	MSRA08F
DIABTS03 = 1	>=200	any	any	any	any
	>=126	1	any	any	any
	any	any	Y	any	any
	any	any	any	not T	Y
DIABTS03 = 0	not missing and <126	any	N or U	any	not Y
DIABTS03 = .T	any	0	not Y	any	not Y
	not >= 126	any	missing	any	not Y
	not >=126	any	not Y	not T	missing

GLUCOS01: Blood Glucose Level in mg/dL

FAST0802: 8 hours or more of fasting time

HOM10E: Diabetes (Sugar in Blood)? Y, N, U (Unsure).

MSRA02[*]:   Took no medications in past 2 weeks? T (no meds) F

MSRA08F: Were any of the medications you took for Diabetes or high blood sugar?

Y, N, U (Unknown)

[*]A value of T on this item skips the patient over MSRA08F

3.18 PREVHF01: Prevalent Heart Failure at Baseline (uc4622):

PREVHF01		Prevelent Heart Failure at Baseline
N	Value	Description
14753	0	No
752	1	Yes
287		Missing

Prevalent Heart Failure at Visit one is an indicator variable used to classify all participants in the ARIC cohort study. There are two variables which affect its value: GOTHENBURG and HFMEDS. GOTHENBURG could also be used alone to select all participants in the ARIC Cohort study who may have had prevalent heart failure at baseline. HFMEDS adds only a consideration of the participant's response to the question on whether he/she had taken heart failure medication in the last two weeks.

PREVHF01

Prevalent Heart Failure at Visit 1 (PREVHF01) will have a value '1' for 'yes' a value of '0' for 'no' or '.' for missing. If the participant reported to have taken any medication for heart failure, or qualifies for the Gothenburg Criteria (see 'GOTHENBURG') then the participant had prevalent heart failure at baseline. The Gothenburg and the medication variable are described above.

PrevHF01	HFmeds	Gothenburg
1	1	Any
	Any	3
0	0	0, 1, 2
Miss	Miss	0, 1, 2, Miss
	0,Miss	Miss

GOTHENBURG

The Gothenburg Score can take a value of 3, 2, 1, 0, or missing. Three factors; cardio, pulmonary, and heart failure therapy (HFTRPY) make up the Gothenburg score (see descriptions below). GOTHENBURG takes a non-zero value only if CARDIAC has a value of 1. GOTHENBURG can then take a value of 2 or 3 based on PULMONARY and HFTHRY.

Gothenburg Score	CARDIAC	PULMONARY	HFTHRY
3	1	1	1
2	1	1	0 or Miss
	1	0 or Miss	1
1	1	0 or Miss	0 or Miss
0	0	N/A	N/A
Miss	Miss	N/A	N/A

GOTHENBURG	Frequency	Percent
.	217	1.37
0	9147	57.92
1	2767	17.52
2	2960	18.74
3	701	4.44

CARDIAC:

Six variables are used to create the CARDIAC value of 1, 0, or missing. CARDIAC received a value of 1 for any participant who had at least one case of any of the following: Edema (see definition below), Paroxysmal Nocturnal Dyspnea (MHXA44), Coronary Heart Disease (PRCHD05), Angina (RANGA01), Rales (PHEA13), or Atrial Fibrillation (ERHA09).

CARDIAC= 1 if any of the following are true:

EDEMA=1, MHXA44= 'Y', PRVCHD05= 'Y', RANGA01= 1, PHEA13= 'Y', ERHA09= 1 or 2

CARDIAC=0 if all the following are true:

EDEMA=0, MHXA44= 'N', PRVCHD05= 'N', RANGA01=4, PHEA13= 'N', ERHA09= 0

CARDIAC = (Missing) if at least one of the variables is missing, given none of the following occur:

EDEMA=1, MHXA44= 'Y', PRVCHD05= 'Y', RANGA01= 1, PHEA13= 'Y', ERHA09= 1 or 2

The EDEMA variable has a value of 1, 0, or missing. A value of 1 is given if a participant had swelling in the feet or ankles during the day.

EDEMA=1 if MHXA45= 'Y' or MHXA46= 'Y'

EDEMA=0 if MHXA45= 'N' and MHXA46= 'N'

EDEMA is missing if neither MHXA45= 'Y' nor MHXA46= 'Y' and one is missing

Variables used to derive CARDIAC

ERHA09: ECG reading for Atrial Fibrillation

MHXA44: Breathing trouble ever wake you?

MHXA45: Ever have swollen ankles or feet?

MHXA46: Ever have swell surges?

PHEA13: Rales

PRVCHD05: Prevalent Coronary Heart Disease

RANGA01: Rose Angina

PULMONARY:
Four variables were used to derive pulmonary values of 1, 0, or missing. PULMONARY received a value of 1 if a participant had at least one of the following: history of bronchitis (RPAA27), history of asthma (RPAA35), rhonchi (PHEA12), or a chronic cough (see definition below).

> PULMONARY =1 if any of the following are true:
> Rpaa27= 'Y', Rpaa35= 'Y', PHEA12= 'B'or 'L' or 'R' Cough= 1
>
> PULMONARY =0 if all of the following are true:
> Rpaa27= 'N', Rpaa35= 'N', PHEA12= 'N' Cough= 0
>
> PULMONARY =(Missing) if at least one of the variables is missing, given none of the following
> occurred: Rpaa35= 'Y', Rpaa28= 'Y', PHEA12= 'B'or 'L' or 'R' Cough= 1

The COUGH variable has a value of 1, 0, or missing. A value of 1 is given if a participant had any of the following: a constant cough (RPAA01), phlegm (RPAA07), wheezing (RPAA14).

> COUGH= 1 if any (Rpaa01, Rpaa07, Rpaa14) ='Y'
> COUGH= 0 if all (Rpaa01, Rpaa07, Rpaa14) ='N'
> COUGH=Miss If no (Rpaa01, Rpaa07, Rpaa14) ='Y' and at least one variable is missing

Variables used to derive PULMONARY

> PHEA12: Rhonchi
>
> RPAA01: Do you usually cough?
>
> RPAA07: Do you usually bring up phlegm?
>
> RPAA14: Does your chest sound wheezy most of the day?
>
> RPAA27: Have you ever had chronic bronchitis?
>
> RPAA35: Have you ever had chronic asthma?

HFTRPY:
HFTRPY is defined using two derived variables, Digitalis and Diuretic (see below for definition). If at least one of the two variables has a value of 1, then the participant has heart failure therapy.

HFTRPY =1 if either (Digitalis or Diuretic) =1
HFTRPY =0 if both (Digitalis and Diuretic) =0
HFTRPY =Miss if Digitalis or Diuretic ^=1, and at least one is missing.

Values for DIGITALIS and DIURETIC are variables based on MTC medication coding. The medical code for Digitalis is '37- ---' and for Digital it is '312 ---'.

DIURECTIC	
1	If MRSA02^=T and any CODE1-17 begins with 37- ---
0	If MRSA02=T and all CODE1-17 = Missing
0	If MRS2 ^= T and none of CODE1-17 begins with 37- ---
Miss	If MSR2 ^=T and all of CODE1-17 are missing
Miss	If MSR2=T and some CODE1-17 are present

DIGITALIS	
1	If MRSA02=T and any CODE1-17 begins with 312 ---
0	If MRSA02=T and all CODE1-17 = Missing
0	If MRS2 = T and none of CODE1-17 begin with 312 ---
Miss	If MSR2 =T and all of CODE1-17 are missing
Miss	If MSR2=T and some CODE1-17 are present

Variables used to derive HFTHRPY:

MSRA02: Why didn't you bring your medication? (T= 'Take no Medication/ F= 'Forgot to bring')
CODE1-17: 2004 drug code updated from question 4 in the medication records (MSRA) form HFMEDS

Heart failure medications (HFMEDS) have a value of '1' for 'yes' and '0' for 'no'. It takes a value of '1' if the participant reported to have taken heart failure medication in the last two weeks.

HFMEDS	MRSA02	MSRA08d
1	Not T	Y
0	T	Missing
	Any	N
Miss	Not T	U or Miss
	T	U or Y

HFMEDS	Frequency	Percent
.	84	0.53
0	15625	98.94
1	83	0.53

Variables used to derive HFMEDS

MSRA02: Why didn't you bring your medication? (T= 'Take no Medication/ F= 'Forgot to bring')
MSRA08d: Do you take medication for heart failure?

Complete List of Variables used to derive PREVHF01

ERHA09: ECG reading for Atrial Fibrillation MHXA44:

Breathing trouble ever wake you? MHXA45: Ever

have swollen ankles or feet? MHXA46: Ever have

swell surges?

MSRA02: Why didn't you bring your medication? (T= 'Take no Medication/ F= 'Forgot to bring')

MSRA08d: Do you take medication for heart failure?

CODE1-17: 2004 drug code updated from question 4 in the medication records from (MSRA)

PHEA12: Rhonchi

PHEA13: Rales

PRVCHD05: Prevalent Coronary Heart Disease

RANGA01: Rose Angina

RPAA01: Do you usually cough?

RPAA07: Do you usually bring up phlegm?

RPAA14: Does your chest sound wheezy most of the day? RPAA27:

Have you ever had chronic bronchitis?

RPAA35: Have you ever had chronic asthma?

4. Hypertension

4.1 HYPERT04 (Hypertension, definition 4; replaces HYPERT01)

HYPERT04			Hypertension, definition 4; replaces HYPERT01
N		Value	Description
11055		0	if (0< SBPA22 < 90) and {MSRA08A = N or [(MSRA08A = missing) and (MSRA02 = T)]}
4646		1	if (SBPA22 > 90) or [(MSRA08A = Y) and (MSRA02 < T)]
91			Missing

4.2 HYPERT05 (Hypertension, definition 5; replaces HYPERT02)

HYPERT05		*Hypertension, definition 5; replaces HYPER02*
N	*Value*	*Description*
10208	0	if (0 < SBPA22 < 90) and (0 < SBPA21 < 140) and {MSRA08A = N or [(MSRA08A = missing) and (MSRA02 = T)]}
5504	1	if (SBPA22 > 90) or (SBPA21 > 140) or [(MSRA08A = Y) and (MSRA02 < T)]
80		Missing

4.3 HYPERT06 (Hypertension, definition 6; replaces HYPERT03)

HYPERT06		Hypertension, definition 6; replaces HYPERT03
N	Value	Description
11210	0	if (0 < SBPA22 < 95) and (0 < SBPA21 < 160) and {MSRA08A = N or [(MSRA08A = missing) and (MSRA = T)]}
4492	1	if (SBPA22 > 95) or (SBPA21 > 160) or [(MSRA08A = Y) and (MSRA02 < T)]
90		Missing

SBPA21: Systolic blood pressure

SBPA22: Diastolic blood pressure

MSRA08A: Were any of the medications you took during the past two weeks for high blood pressure?

Y, N, U (Unknown)

5. Medication Use

Medication records were collected at each clinic visit. Participants were reminded to bring all medications used in the previous two weeks. Names of the medications were transcribed and coded by the ARIC medication coding system, developed by a pharmacist at UNC. The ARIC medication codes were then mapped to Medi-Span Therapeutic Classification (MTC) codes and American Hospital formulary Service Classification Compilation (AHFSCC) codes. Variable names for the MTC codes are MSRMTC1-MSRMTC17, and MSRAHF1-MSRAHF17 for AHFSCC codes (in file MSRCOD05 for Visit 1). Definitions of the MTC and AHFSCC codes are given in Section 17.

5.1 HYPTMD01 (Blood Pressure Lowering Medications in the past 2 weeks)

HYPTMD01		Blood Pressure Lowering Medications in the past 2 weeks
N	Value	Description
90	T	
11699	0	Took Hypertension Lowering Medication = No
4003	1	Took Hypertension Lowering Medication = Yes

Table of assignment of values to HYPTMD01

	MSRA02	MSRA08A
HYPTMD01 = 1	Not T	Y
HYPTMD01 = 0	T	missing
	Any	N
HYPTMD01 = missing	Not T	U or missing
	T	Non-missing

MSRA02:   Reason why did not bring all medications.

          T (Took no medications).

          F (Forgot or was unable to bring medications).

MSRA08A: High blood pressure medications in past 2 weeks.

          Y, N, U (Unknown).

Algorithm:

1. If (MSRA02 NE T) and (MSRA08A = Y)

     then set HYPTMD01 = Yes.

2. If (MSRA02 = T and MSRA08A = missing) or (MSRA08A = N)

then set HYPTMD01 = No.

3. If (MSRA02 NE T) and (MSRA08A = U or MSRA08A = missing)

   then set HYPTMD01 to missing.

5.2 HYPTMD02 (Discontinued)

5.3 HYPTMD03 (Discontinued)

5.4 HYPTMD04 (Discontinued)

5.5 HYPTMDCODE01: Hypertension Lowering Medication within the Past 2 weeks (UC4688)

HYPTMDCODE01		Hypertension Lowering Medication Within Past 2 Weeks
N	Value	Description
8	Z	Unknown whether participant has taken hypertension lowering medication in past two weeks
10946	0	Participant has not taken hypertension lowering medication in past two weeks
4838	1	Participant has taken hypertension lowering medication in past two weeks

HYPTMDCODE01, using updated medication codes, replaces HYPTMD04.

HYPTMDCODE01 is a categorical variable that takes on the values of:

1   Participant has taken hypertension lowering medication in past two weeks

0   Participant has not taken hypertension lowering medication in past two weeks

Z   Unknown whether participant has taken hypertension lowering medication in past two weeks

Definition:

If participants are on medications and reported to have taken an antihypertensive medications within the last two weeks or taking a medication which is classified as an antihypertensive then set HYPTMDCODE01=1.

If participants did not bring any medications because no medications were being taken, and subsequently confirmed they had not taken any medication to lower blood pressure in the last two weeks or confirmed they had no medications listed, or participants who were taking medications but did not report having taken an antihypertensive within the last two weeks/did not know if they were taking an antihypertensive medication within the last two weeks and none of their listed medications could be classified as an antihypertensive then HYPTMDCODE01=0.

Classify all other participants who meet neither the criteria for 1 or 0 as missing.

Algorithm:

I. Create variable ALLMISS: ALLMISS= 1 if all the CODE1-17 are blank. Otherwise, ALLMISS=0.

II. Create variables HBPMED

   a. HBPMED=1 if ALLMISS=0 AND at least one of the CODE1-17= 330000-339999 or 340000-349999 or 360000-369999 or 370000-379999

   b. HBPMED=0 if ALLMISS=1 or [ALLMISS=0 AND none of the CODE1-17=330000-339999 or 340000-349999 or 360000-369999 or 370000-379999]

III. Create HYPTMDCODE01

   HYPTMDCODE01=1

      If (MSRA02 T & Msra08a = Y) or (MSRA02^T & HBPMED=1)

   HYPTMDCODE01 = 0

      If MSRA02 = T & Msra08a=N

      Or

      If MSRA02=T & Msra08a=Blank & ALLMISS=1

      Or

      If MSRA02^=T & Msra08a^=Y & HBPMED= 0

   HYPTMDCODE01= Missing otherwise

Table of Assignment

	MSRA02	MSRA08A	HBPMED	ALLMISS
HYPTMDcode01 = 1	Not T	Y	Any	Any
		Any	1	Any
HYPTMDcode01 = 0	T	N	Any	Any
		Blank	Any	1
	Not T	N, U, Blank	0	Any
HYPTMDcode01 = Missing	Any other combinations			

MSRA02:   Reason why did not bring all medications.

   T (Took no medications),

   F (Forgot or was unable to bring medications).

CODE1--17: Updated Medication Code number.

MSRA08A: High blood pressure medications in past two weeks.

Y, N, U (Unknown)

5.6 CHOLMD01 (Discontinued)

5.7 CHOLMD02 (Discontinued)

5.8 CHOLMDCODE01 (Cholesterol Lowering Medication in past 2 weeks- Using 2004 Med Code) UC4735

CHOLMDCODE01			*Cholesterol Lowering Medication in past 2wks: Using 2004 Med Code -V1*
N		*Value*	*Description*
120		T	
15220		0	No
452		1	Yes

Algorithm:

If CODE1-CODE17 have at least one of the following: 771030, 390000--399999, then FOUND1 = 1. Else FOUND1 =0. If all CODE1-CODE17 = missing then ALLMISS = 1. Else ALLMISS = 0.

1. If (MSRA02 = F or MSRA02 = missing) and ALLMISS=1 then CHOLMDCODE01 = .T .

2. Else if [MSRA02 NE T] and FOUND1=1 then set CHOLMDCODE01 = 1.

3. Else if [MSRA02 = T and ALLMISS=1] or FOUND1=0 then set CHOLMDCODE01 = 0.

4. Otherwise, set CHOLMDCODE01 = .

	FOUND1	ALLMISS	MSRA02
CHOLMDCODE01 = 1	1	0	Not T
CHOLMDCODE01 = 0	0	Any	Any
	Any	1	T
CHOLMDCODE01 = .T	Any	1	F or missing

CODE1--17: Updated Medication Code number.

MSRA02:   Reason why did not bring all medications.

T (Took no medications),

F (Forgot or was unable to bring medications).

5.9 CHOLMDCODE02 (Medications which has Secondarily Affect Cholesterol- Using 2004 Med Code) UC3735

CHOLMDCODE02		Medications Which Secondarily Affect Cholesterol: Using 2004 Med Code -V1	
N	Value	Description
11655	0	
4016	1	
120	T	
1		Missing

Algorithm:

If CODE1-CODE17 have at least one of the following: 331000, 332000, 340000, 363000, 369920, 372000, 376000, 379900 and 379910, then FOUND2 = 1. Else FOUND2 =0.

If all CODE1-CODE17 = missing then ALLMISS = 1. Else ALLMISS = 0.

1. If (MSRA02 = F or MSRA02 = missing) and ALLMISS=1 then CHOLMDCODE02 = .T .

2. Else if [MSRA02 NE T] and FOUND2=1 then CHOLMDCODE02 = 1.

3. Else if [MSRA02 = T and ALLMISS=1] or FOUND2=0 then CHOLMDCODE02 = 0.

4. Otherwise, set CHOLMDCODE02 = .

	FOUND2	ALLMISS	MSRA02
CHOLMDCODE02 = 1	1	0	Not T
CHOLMDCODE02 = 0	0	Any	Any
	Any	1	T
CHOLMDCODE02 = .T	Any	1	F or missing

CODE1--17: Updated Medication Code number.

MSRA02: Reason why did not bring all medications.

T (Took no medications),

F (Forgot or was unable to bring medications).

5.10 ANTICOAGCODE01 (Anticoagulant use in the past 2 weeks based on 2004 medication codes) UC4892

ANTICOAGCODE01			Used Anticoagulates (At Visit 1) Last 2 Weeks (0=no, 1=yes) Based On 2004 Med Code
N		Value	Description
15582		0	No
89		1	Yes
121			Missing

Definition:

If at least one of the 17 medication code variables from the Medication Survey Form (MSRA: Q4M01B, Q4M02B, …, Q4M17B; termed CODE1-CODE17) contained "83" then the anticoagulant flag would have a value of 1, otherwise, the anticoagulant flag would contain a 0.

If a participant brought all or some of their medication to the clinic or if they forgot their medication (but stated that they do take medication) and the anticoagulant flag has a value of 1 then ANTICOAGCODE01=1 for "Anticoagulant medication found".

ANTICOAGCODE01=0 for "No Anticoagulant medication found" if a participant has at least one medication in the 17 medication code variables, but none of them contain "83". ANTICOAGCODE01 takes a missing value for any other combination not mentioned.

Table of assignment of values to ANTICOAGCODE01

	MSRA01	MSRA02	ANYMED	ANTICOAG_FLAG
ANTICOAGCODE01=1	N	F	1	1
	Y, S	missing		
ANTICOAGCODE01=0	N	missing	1	0
	N	F	1	0
	N	T	0	0
	Y, S	missing	1	0
	S	F	1	0

MSRA01: Bring all medication from last 2 weeks?
Y Yes, brought all medication
S brought some medication
N No, brought no medication

MSRA02: Reason why did not bring all medications.
T Took no medications
F Forgot or was unable to bring medications

ANYMED
1 any medications recorded in CODE1-CODE17
0 no medications recorded in CODE1-CODE17

ANTICOAG_FLAG
1 ANYMED=1 AND value of "83" found in CODE1-CODE17
0 ANYMED=0 or ANYMED=1 and no "83" found in CODE1-CODE17

Algorithm:
1. Create variable ANYMED.
   ANYMED=1 if any medication codes are recorded in CODE1-CODE17. ANYMED=0 if no medication codes are present. ANYMED= missing if no MSRA is present.

2. Create variable ANTICOAG_FLAG. ANTICOAG_FLAG=1 if ANYMED=1 and CODE1-CODE17 contains the first two numbers "83". ANTICOAG_FLAG=0 otherwise.

3. Create variable ANTICOAGCODE01.

   ANTICOAGCODE01=1
     If MSRA1='N' and MSRA02= 'F' and ANTICOAG_FLAG=1

     Or

     If (MSRA01= 'Y' or 'S') and ANTICOAG_FLAG=1

   ANTICOAGCODE01=0
     If MSRA01='N' and MSRA02=missing and ANYMED=1 and ANTICOAG_FLAG=0

     Or

     If MSRA01='N' and MSRA02='F' and ANYMED=1 and ANTICOAG_FLAG=0

     Or

     If MSRA01='N' and MSRA02='T' and ANYMED=0 and ANTICOAG_FLAG=0

     Or

     If MSRA01='Y', 'S' and MSRA02=missing and ANYMED=1 and ANTICOAG_FLAG=0

     Or

     If MSRA01='S' and MSRA02='F' and ANYMED=1 and ANTICOAG_FLAG=0

   ANTICOAGCODE01=Missing for all other combinations

5.11 ASPIRINCODE01 (Aspirin use in the past 2 weeks based on 2004 medication codes) UC4892

ASPIRINCODE01		Used Aspirin-Containing Analgesics (At Visit 1) In Last 2 Weeks (0=no, 1=yes), Based On 2004 Med Code
N	Value	Description
8388	0	No
7268	1	Yes
136		Missing

Definition:

If at least one of the 17 medication code variables from the Medication Survey Form (MSRA: Q4M01B, Q4M02B, …, Q4M17B; termed CODE1-CODE17) contained: "6410", "6499", "6599", or "6420" then the aspirin flag would have a value of 1, otherwise, the aspirin flag would contain a 0.

If a participant brought all or some of their medication to the clinic or if they forgot their medication (but stated that they do take medication) and the aspirin flag has a value of 1 then AspirinCode01=1 for "Aspirin containing medication found".

ASPIRINCODE01=0 for "No aspirin containing medication found" if a participant has at least one medication in the 17 medication code variables, but none of them contain "6410", "6499", "6599", or "6420". ASPIRINCODE01 takes a missing value for any other combination not mentioned.

Table of assignment of values to ASPIRINCODE01

	MSRA01	MSRA02	ANYMED	ASPIRIN_FLAG
ASPIRINCODE01=1	N	F	1	1
	Y, S	missing		
ASPIRINCODE01=0	N	missing	1	0
	N	F	1	0
	N	T	0	0
	Y, S	missing	1	0
	S	F	1	0

MSRA01: Bring all medication from last 2 weeks?
        Y Yes, brought all medication
        S brought some medication
        N No, brought no medication

MSRA02: Reason why did not bring all medications.
        T Took no medications
        F Forgot or was unable to bring medications

ANYMED
1 any medications recorded in CODE1-CODE17
0 no medications recorded in CODE1-CODE17

ASPIRIN_FLAG
1 ANYMED=1 AND value of "6410", "6499", "6599", or "6420" found in CODE1-CODE17
0 ANYMED=0 or ANYMED=1 and no "6410", "6499", "6599", or "6420" found in CODE1-CODE17

Algorithm:
1. Create variable ANYMED.
   ANYMED=1 if any medication codes are recorded in CODE1-CODE17. ANYMED=0 if no medication codes are present. ANYMED= missing if no MSRA is present.

2. Create variable ASPIRIN_FLAG. ASPIRIN_FLAG=1 if ANYMED=1 and CODE1-CODE17 contains the first four numbers "6410", "6499", "6599", or "6420". ASPIRIN_FLAG=0 otherwise.

3. Create variable ASPIRINCODE01.
   ASPIRINCODE01=1
       If MSRA1='N' and MSRA02= 'F' and ASPIRIN_FLAG=1
          Or
       If (MSRA01= 'Y' or 'S') and ASPIRIN_FLAG=1

ASPIRINCODE01=0

If MSRA01='N' and MSRA02=missing and ANYMED=1 and ASPIRIN_FLAG=0
    Or
If MSRA01='N' and MSRA02='F' and ANYMED=1 and ASPIRIN_FLAG=0
    Or
If MSRA01='N' and MSRA02='T' and ANYMED=0 and ASPIRIN_FLAG=0
    Or
If MSRA01='Y', 'S' and MSRA02=missing and ANYMED=1 and ASPIRIN_FLAG=0
    Or
If MSRA01='S' and MSRA02='F' and ANYMED=1 and ASPIRIN_FLAG=0

ASPIRINCODE01=Missing for all other combinations

5.12 STATINCODE01 (Statin use in the past 2 weeks based on 2004 medication codes) UC4892

STATINCODE01		Statin use in the past 2 weeks based on 2004 medication codes
N	Value	Description
15582	0	No statin medication found
89	1	Statin medication found
121		Missing

Definition:

If at least one of the 17 medication code variables from the Medication Survey Form (MSRA: Q4M01B, Q4M02B, …, Q4M17B; termed CODE1-CODE17) contained "3940" then the Statin flag would have a value of 1, otherwise, the Statin flag would contain a 0.

If a participant brought all or some of their medication to the clinic or if they forgot their medication (but stated that they do take medication) and the Statin flag has a value of 1 then STATINCODE01=1 for "Statin medication found".

STATINCODE01=0 for "No Statin medication found" if a participant has at least one medication in the 17 medication code variables, but none of them contain "3940". STATINCODE01 takes a missing value for any other combination not mentioned.

Table of assignment of values to STATINCODE01

	MSRA01	MSRA02	ANYMED	STATIN_FLAG
STATINCODE01=1	N	F	1	1
	Y, S	missing		
STATINCODE01=0	N	missing	1	0
	N	F	1	0
	N	T	0	0
	Y, S	missing	1	0
	S	F	1	0

MSRA01: Bring all medication from last 2 weeks?
    Y Yes, brought all medication
    S brought some medication

N No, brought no medication

MSRA02: Reason why did not bring all medications.
        T Took no medications
        F Forgot or was unable to bring medications

ANYMED
        1 any medications recorded in CODE1-CODE17
        0 no medications recorded in CODE1-CODE17

STATIN_FLAG
        1 ANYMED=1 AND value of "3940" found in CODE1-CODE17
        0 ANYMED=0 or ANYMED=1 and no "3940" found in CODE1-CODE17

Algorithm:
1. Create variable ANYMED.
    ANYMED=1 if any medication codes are recorded in CODE1-CODE17. ANYMED=0 if no medication codes are present. ANYMED= missing if no MSRA is present.

2. Create variable STATIN_FLAG. STATIN_FLAG=1 if ANYMED=1 and CODE1-CODE17 contains the first four numbers "3940". STATIN_FLAG=0 otherwise.

3. Create variable STATINCODE01.
    STATINCODE01=1
        If MSRA01='N' and MSRA02= 'F' and STATIN_FLAG=1
            Or
        If (MSRA01= 'Y' or 'S') and STATIN_FLAG=1

    STATINCODE01=0
        If MSRA01='N' and MSRA02=missing and ANYMED=1 and STATIN_FLAG=0
            Or
        If MSRA01='N' and MSRA02='F' and ANYMED=1 and STATIN_FLAG=0
            Or
        If MSRA01='N' and MSRA02='T' and ANYMED=0 and STATIN_FLAG=0
            Or
        If MSRA01='Y', 'S' and MSRA02=missing and ANYMED=1 and STATIN_FLAG=0
            Or
        If MSRA01='S' and MSRA02='F' and ANYMED=1 and STATIN_FLAG=0

    STATINCODE01=Missing for all other combinations

6. Other Variables

6.1   ABI04 (Ankle Brachial Index V1, definition 4)

This is a numeric variable with the following definition:

If ANKSBP13 or ARMSBP13 are '.' (missing), then ABI04= '.' (missing)
If ARMSBP13=.R or if ANKSBP13 = .R, then ABI04=.R (missing due to out of range value)
If ANKSBP13 minus ARMSBP13 <75, then ABI04=ANKSBP13/ARMSBP13.
If ANKSBP13 minus ARMSBP13 >75, then ABI04= .S (missing due to out of range interval between Ankle and Arm BP)

Ankle BP (ANKSPB13)				
		Missing (not measured)	.R (out of range value)	Valid value 30-245, inclusive
Arm BP ARMSBP13	Missing (not measured)	ABI04= '.'	ABI04= '.'	ABI04= '.'
	.R (out of range value)	ABI04= '.'	ABI04= '.R'	ABI04= '.R'
	Valid value 30-245, inclusive	ABI04= '.'	ABI04= '.R'	If |ANKSBP13minusARMSBP13|<75, then ABI04=ANKSBP13/ARMSBP13. If |ANKSBP13minusARMSBP13| $\geq$75, then ABI04= .S (missing due to out of range interval between Ankle and Arm BP)

6.2   ABIV1 (ABI was measured at V1)

This is a character variable with the following definition:

If ABI04= > 0, then ABIV1=Y (ABI measured at V1 and has a valid value)
If ABI04 = '.S', then ABIV1= S (ABI measured at V1, but value is invalid)
If ABI04= '.R', then ABIV1=R (ABI measured at V1, but one or both BP values out of range, so no valid value)
If ABI04= '.', then ABIV1=N (ABI not measured at V1, due to missing one or both BP values)

6.3   DEPTH01 (Average depth of the six site-specific in pixels) in file UBMD4

This is a numeric variable which calculates the average depth in pixels from skin to Boundary 5 of the six sites: right and left bifurcation, internal, and optimal common.

DEPTH01   = Mean of non-missing site-specific depths in pixels

                 = Missing, if all six sites are missing.

Note: Site-specific depth is the distance from skin to Boundary 5 at each site (rbif, lbif, rint, lint, ropt, and lopt).

6.4   DEPTH02 (Average depth in mm of the six specific sites) in file UBMD4

This is a numeric variable which calculates the average depth in mm from skin to Boundary 5 of the six sites: right and left bifurcation, right and left internal, and right and left optimal common.

DEPTH02   = Mean of non-missing site-specific depths in mm.

                = Missing, if all six sites are missing.

Note:

    (a) Site-specific depth is the distance from skin to Boundary 5 at each site (rbif, lbif, rint, lint, ropt, and lopt).

    (b) DEPTH02 = DEPTH01 * 0.067.

6.5   ELEVEL01 (Education Levels, Definition 1)

ELEVEL01		Education Levels, Definition 1
N	*Value*	*Description*
1534	1	Education Level = Grade school or 0 years education
2233	2	Education Level = High school, but no degree
5087	3	Education Level = High school graduate
1325	4	Education Level = Vocational school
4015	5	Education Level = College
1571	6	Education Level = Graduate school or Professional school
27		Missing

Table of assignment of values to ELEVEL01

	HOM54
ELEVEL01 = 1	≤ 8 and not missing
ELEVEL01 = 2	9 - 11
ELEVEL01 = 3	12 - 13
ELEVEL01 = 4	14 - 16
ELEVEL01 = 5	17 - 20
ELEVEL01 = 6	21
ELEVEL01 = missing	99 or missing

HOM54: Highest Grade Completed in School.

ELEVEL01 (Education Level, Definition 1):

Algorithm:

1. If (HOM54 $\leq$ 8) and (HOM54 not missing)

    then set ELEVEL01 = 1 (Grade school or 0 years education).

2. If (HOM54 = 9) or (HOM54 = 10) or (HOM54 = 11)

    then set ELEVEL01 = 2 (High school, but no degree).

3. If (HOM54 = 12) or (HOM54 = 13)

    then set ELEVEL01 = 3 (High school graduate).

4. If (HOM54 = 14) or (HOM54 = 15) or (HOM54 = 16)

    then set ELEVEL01 = 4 (Vocational school).

5. If (HOM54 = 17) or (HOM54 = 18) or (HOM54 = 19) or (HOM54 = 20)

    then set ELEVEL01 = 5 (College).

6. If (HOM54 = 21)

    then set ELEVEL01 = 6 (Graduate school or Professional school).

7. If (HOM54 = 99) or (HOM54 = missing)

   then set ELEVEL01 to missing.

HOM54: Highest Grade Completed in School.

6.6 ELEVEL02 (Education Level, Definition 2)

ELEVEL02		Education Level, Definition 2
N	Value	Description
3767	1	Education Level = Basic Education or 0 Years Education
6412	2	Education Level = Intermediate Education
5586	3	Education Level = Advanced Education
27		Missing

Table of assignment of values to ELEVEL02

	HOM54
ELEVEL02 = 1	$\leq$ 11 and not missing
ELEVEL02 = 2	12 - 16
ELEVEL02 = 3	17 - 21
ELEVEL02 = missing	99 or missing

HOM54: Highest Grade Completed in School.

ELEVEL02 (Education Level, Definition 2)

Algorithm:

1. If   (HOM54 $\leq$ 11) and (HOM54 not missing)
   then set ELEVEL02 = 1 (Basic Education or 0 Years Education).

2. If   (HOM54 = 12) or (HOM54 = 13) or (HOM43 = 14) or
   (HOM54 = 15) or (HOM54 = 16)
   then set ELEVEL02 = 2 (Intermediate Education).

3. If   (HOM54 = 17) or (HOM54 = 18) or (HOM54 = 19) or
   (HOM54 = 20) or (HOM54 = 21)
   then set ELEVEL02 = 3 (Advanced Education).

4. If   (HOM54 = 99) or (HOM54 = missing)
   then set ELEVEL02 to missing.

6.7 GLUSOS01 (Blood Glucose Lever in mg/dL)

GLUCOS01		Derived Glucose Value In mg/dL
N	Value	Description
15642	Range	35 - 628 (median=99.189 mean=108.9557 std=40.5656)
150		Missing

This is a numeric variable whose original value of CHMX07 has been adjusted to reflect a re-calibration of the measuring instruments which occurred on August 3, 1988.

Algorithm:

1. If CHMX07 = missing
   then set GLUCOS01 = missing.

2. If V1DATE01 $\geq$ July 25, 1988
   then set GLUCOS01 = CHMX07.

3. If (ENTRYDAT < August 3, 1988 and ENTRYDAT not missing)
   or (VENA02 $\leq$ July 15, 1988 and VENA02 not missing)
   then set GLUCOS01 = 0.0963 * CHMX07.

4. If ID is in a specific listing of IDs determined by Clinical Chemistry Laboratory to have been analyzed before the re-calibration date
   then set GLUCOS01 = 0.963 * CHMX07.

5. If ID is in a specific listing of IDs determined by Clinical Chemistry Laboratory to have been analyzed on or after the re-calibration date
   then set GLUCOS01 = CHMX07.

CHMX07:   Glucose (mg/dL).

V1DATE01:   Visit 1 Date.

ENTRYDAT: Data Entry System Entry Date for Chemistry Lab data.

VENA02:   Date of Blood drawing.

6.8 TGLEFH01 (Triglycerides less than or equal to 400 mg/dL)

TGLEFH01		Triglycerides <= 400 mg/dL
N	Value	Description
225	0	Triglycerides under 400 mg/dL = No.
15319	1	Triglycerides under 400 mg/dL = Yes.
248		Missing

Table of assignment of values to TGLEFH01

	LIPA02 (MG/DL)
TGLEFH01 = 1	Not missing and Less than or equal to 400
TGLEFH01 = 0	More than 400
TGLEFH01 = missing	Missing

LIPA02: Total Triglycerides (mg/dL).

6.9 TOTCAL01 (Discontinued)

6.10 TOTCAL02 (Discontinued)

6.11 TOTCAL03 (Total Calorie Intake in Kcal/day from dietary and ethanol consumption, but excluding other calories from alcoholic beverages)

TOTCAL03		*Total Calorie Intake in Kcal/day from dietary and ethanol consumption, but excluding other calories from alcoholic beverages*
N	*Value*	*Description*
15754	Range	81.88 - 21779.21 (median=1519.545 mean=1633.2632 std=714.1405)
38		Missing

TOTCAL03 is a measure of total caloric intake as determined by Willett<s nutrient coding and adding calories from ethanol. This variable does not include non-ethanol calories from alcoholic beverages. Use the variable TCAL from TOTNUT to have a variable for total calories from all sources.

TOTCAL03 takes the following values:

TOTCAL03 = NUTRA01 + ETHANL03, if neither is missing

TOTCAL03 = NUTRA01, if ETHANL03 is missing

TOTCAL03 = missing, if NUTRA01 is missing or 0

NUTRA01: Daily caloric intake as determined by Willett<s nutrient coding, excluding calories from alcoholic beverages.

ETHANL03: Usual ethanol intake in gram/wk*

*:ETHANL03 can be interpreted as gram/week or as kcal/day, since 1 gram ethanol provides 7 kcal and 1 week = 7 days.

6.12 V1AGE01 (Age at Visit 1)

V1AGE01		Age At Visit 1
N	Value	Description
15792	Range	44 - 66 (median=54 mean=54.2 std=5.8)

V1AGE01 is calculated as the difference in years between IDNA11 (Birth date) and V1DATE01 (Derived visit 1 date).

    i. Birthday is prior to the visit 1 day:
        a.   (birth month) < (month of visit)
        b.   (birth month) = (month of visit) and
                (birth day) $\leq$ (day of visit)

    V1AGE01 = (year of visit) - (birth year)

    ii. Birthday is on or after the visit 1 day:
        a.   (birth month) > (month of visit)
        b.   (birth month) = (month of visit) and
                (birth day) > (day of visit)

    V1AGE01 = (year of visit) - (birth year) - 1

    iii. Any of the following cannot be determined:
    a.   Relationship between birthday and visit 1 day.
    b.   Year of visit.
    c.   Birth year.

    V1AGE01 = missing.

        Notes:

    a.   Birth month, day, and year are determined from IDNA11M, IDNA11D, and IDNA11Y, respectively.
    b.   Visit month, day, and year are determined from the derived variable, V1DATE01, for visit date.

6.13 V1DATE01 (Visit 1 Date)

V1DATE01		Visit 1 Date
N	Value	Description
15792	Range	11/24/1986 - 03/29/1990

Search the visit 1 dates on visit 1 forms in the following order:

FTRA01A, SBPA23, ANTA09

V1DATE01 is the first non-missing date that is found.

Notes:

    (a) V1DATE01 = FTRA01A for all but 2 persons.

    (b) Consistency checks among the dates are not performed.

6.14 FAST0802 (8 Hours or More of Fasting Time)

FAST0802		Fasting Time Of 8 Hours Or More
N	Value	Description
71	T	Missing (fasting status cannot be determined)
521	0	Not fasting 8 hours or more
15200	1	Fasting 8 hours or more

This definition differs from FAST0801 in that it takes into account the dates the FTRA (Fasting/Tracking Interview) and VENA (Venipuncture) visits were completed.

Definition:

If either the FTRA or VENA form (or both) is missing or either form has a missing date (FTRA01A or ENA02 = missing), then

    A. Set FAST0802 to missing.

        If both dates are present and equal (FTRA01A = VENA02), then

    A. Compute CLINTIME, the time between the FTRA interview time (FTRA01B) and venipuncture time (VENA03). Convert FTRA interview time and/or venipuncture time to a 24-hour clock value if the hour value (FTRA01BH, VENA03H) falls in the range 1-11 and the time of day (FTRA01C, VENA03A) is PM. Do this by adding 12 to the hour value.

    B. If time of consumption of last meal is **<before yesterday<** (FTRA02A = B) or the total time between consumption of last meal and blood draw is $\geq$ 8 hours, then set FAST0802 to 1 if blood draw is before consumption of the snack (VENA04 = Y or blank).

    C. If the snack was consumed before blood draw (VENA04 = N) or the total time between consumption of last meal and blood draw is not missing and < 8 hours, then set FAST0802 to 0.

    D. If neither B nor C above is met, set FAST0802 to missing if either FRTA03 or CLINTIME is missing.

If both dates are present and FTRA visit occurred before VENA visit (FTRA01A < VENA02) then

A. In this case, the clinic is assumed to have changed the fasting information, so that FTRA02 and FTRA03 refer to the VENA visit day. Assign a value of 1 to FAST0802 if FTRA03 $\geq$ 8; assign a value of 0 if FTRA03 is nonmissing and < 8.

If both dates are present and FTRA visit occurred after VENA visit (FTRA01A > VENA02) then

A. Set FAST0802 to missing.

CLINTIME: A temporary variable to determine the total elapsed times since the participant provided their fasting information and when venipuncture was performed.

FTRA01A: Date of visit in mmddyy.

FTRA01BH: Time of visit hour component.

FTRA01BM: Time of visit minute component.

FTRA01C: Time of visit: AM or PM.

FTRA02A: Day last consumed.
T (Today), Y (Yesterday), B (Before yesterday)

FTRA03: Computed fasting time in hours.

VENA02: Date of blood drawing in mmddyy.

VENA03A: Time of blood drawing: AM or PM.

VENA03H: Time of blood drawing hour component.

VENAO3M: Time of blood drawing minute component.

VENA04: Was blood drawn before the snack? Y, N

6.15 FAST1202 (12 Hours or more of Fasting Time)

FAST1202		Fasting Time Of 12 Hours Or More
N	Value	Description
73	T	Missing (fasting status cannot be determined)
848	0	Not fasting 12 hours or more
14871	1	Fasting 12 hours or more

This definition differs from FAST1201 in that it takes into account the dates the FTRA (Fasting/Tracking interview) and VENA (Venipuncture) visits were completed.

Definition:

If either the FTRA or VENA form (or both) is missing or either form has a missing date (FTRA01A or VENA02 = missing), then

A. Set FAST1202 to missing.

If both dates are present and equal (FTRA01A = VENA02) then

    A. Compute CLINTIME, the time between the FTRA interview time (FTRA01B) and venipuncture time (VENA03). Convert FTRA interview time and/or venipuncture time to a 24-hour clock value if the hour value (FTRA01BH, VENA03H) falls in the range 1-11 and the time of day (FTRA01C, VENA03A) is PM. Do this by adding 12 to the hour value.

    B. If time of consumption of last meal is ◄before yesterday◄ (FTRA02A = B) or the total time between consumption of last meal and blood draw is $\geq$ 12 hours, then set FAST1202 to 1 if blood draw is before consumption of the snack (VENA04 = Y or blank).

    C. If the snack was consumed before blood draw (VENA04 = N) or the total time between consumption of last meal and blood draw is not missing and < 12 hours, then set FAST1202 to 0.

    D. If neither B or C above is met, set FAST1202 to missing if either FTRA03 or CLINTIME is missing.

If both dates are present and FTRA visit occurred before VENA visit (FTRA01A < VENA02) then

    A. In this case, the clinic is assumed to have changed the fasting information, so that FTRA02 and FTRA03 refer to the VENA visit day. Assign a value of 1 to FAST1202 if FTRA03 $\geq$ 12; assign a value of 0 if FTRA03 is nonmissing and < 12.

If both dates are present and FTRA visit occurred after VENA visit (FTRA01A > VENA02) then

    A. Set FAST1202 to missing.

CLINTIME:	A temporary variable to determine the total elapsed time since the participant provided their fasting information and when venipuncture was performed.
FTRA01A:	Date of visit in mmddyy.
FTRA01BH:	Time of visit hour component.
FTRA01BM:	Time of minute component.
FTRA01C:	Time of visit: AM or PM.
FTRA02A:	Day last consumed. T (Today), Y (Yesterday), B (Before yesterday).
FTRA03:	Computed fasting time in hours.
VENA02:	Date of blood drawing in mmddyy.
VENA03A:	Time of blood drawing: AM or PM.
VENA03H:	Time of blood drawing hour component.
VENA03M:	Time of blood drawing minute component.
VENA04:	Was blood drawn before the snack? Y, N

6.16 MENOPS01 (Menopausal Status)

MENOPS01		Menopausal Status	
N	Value	Description
5	1	Primary Amenorrhea
1638	2	Premenopause
806	3	Perimenopause
3825	4	Post, Natural
1326	5	Post, Surgical
1064	6	Unknown Ovarian Status
7128		Missing

Note: This variable has not undergone review by the ARIC Steering Committee and, thus, should not be considered Aofficial.≅ The variable was developed by A. Nabulsi for use in the ARIC Manuscript #75.

Values are assigned according to the conditions defined below:

1.   If RHXA01 = 0 (never menstruated) and RHXA04 = missing
     then set MENOPS01 = 1 (Primary Amenorrhea).

2.   If the above condition is not met and the following condition is met
     then set MENOPS01 = 2 (Premenopause).

     If RHXA04 = Yes and
     (RHXA07 = No) or (RHXA06 = 0 and RHXA07 = missing)

3.   If none of the above conditions are met and the following condition is met
     then set MENOPS01 = 3 (Perimenopause).

     If RHXA04 = Yes and
     (RHXA07 = Yes or RHXA07 = unknown)

4.   If none of the above conditions are met and at least one of the following conditions is met
     then set MENOPS01 = 4 (Post, Natural)

     If   [(RHXA04 = No) and
           (RHXA09 = No or RHXA09 = Unknown)]

     or
           [(RHXA04 = No) and
           (RHXA09 = Surgery or RHXA09 = missing) and
           (RHXA45 = No)]

     or
           [(RHXA04 = missing) and
           (RHXA07 = Yes) and

(RHXA09 = No) and
        (RHXA45 = No)]
    or
        [(RHXA04 = No) and
        (RHXA09 = Surgery or missing) and
        (RHXA48 = No or one) and
        (Visit 1 Age >55)]

5. If none of the above conditions are met and the following condition is met

    then set MENOPS01 = 5 (Post, Surgical).

    If   [(RHXA04 = No) and
          (RHXA09 = Surgery or missing) and
          (RHXA48 = Both)]

6. If none of the above conditions are met and at least one of the following conditions is met

    then set MENOPS01 to missing (Unknown Ovarian Status).

    If   (RHXA04 = No and RHXA07 = Yes and RHXA09 = Surgery and RHXA45 = Yes and RHXA46 = No and
    RHXA48 = One)
    or
          (RHXA04 = No and (RHXA09 = Surgery or missing) and RHXA48 = Unknown)
    or
          (RHXA04 = No and RHXA07 = Yes and RHXA09 = Surgery and RHXA45 = Yes or unknown and RHXA48
          = Missing or Yes)
    or
          (RHXA04 = No and RHXA07 = Unknown and RHXA09 = Missing and RHXA45 = Yes and RHXA46 = Yes
          and RHXA48 = Missing)
    or
          (RHXA46 = Yes and RHXA48 not = B and (RHXA08 $\geq$ RHXA47) and Visit 1 Age < 55 and RHXA09 not =
          No)
    or
          (RHXA04 = No and (RHXA09 = Surgery or missing) and RHXA48 = No or One and Visit 1 Age < 55)

Questionnaire Items:

RHXA01:   Approximately how old were you when your menstrual periods started?

RHXA04:   Have you had any menstrual periods during the past two years? Y, N

RHXA07:   Have you reached menopause? Y, N, U (Unknown)

RHXA09:   Was your menopause natural or the result of surgery or radiation?
               N (Natural), S (Surgery), R (Radiation), U (Unknown)

RHXA45:   Have you had surgery to have your uterus or ovaries removed? Y, N, U (Unknown)

RHXA46:   Was your uterus (womb) removed? Y, N, U (Unknown)

RHXA48:   Have you had either one or both ovaries removed?
               O (Yes, one), B(Yes, Both), N (No), U (Unknown)

6.17 LATEREAD (Later readings of Scan) in files UBMDBF02, UBMDBM02, UBMDWF02, UBMDWM02)

This is a categorical variable defining whether the ultrasound scan was done before May 15, 1987 and retranscribed and read several years later.

LATEREAD =   0:   0<SCANDATE (UBMD05)<15 May 87
               1:     SCANDATE$\geq$15 May 87

6.18 HORMON02 (Use of Hormones)

HORMON02		Use of Hormones	
N	*Value*	*Description*
1121	1	1 = Current Estrogen User
456	2	2 = Current Estrogen and Progestin User
5570	3	3 = Never used Hormones
1237	4	4 = Former Hormone User or Former User of other medications reported by participants as hormones*.
7408		Missing

Note: This variable has not undergone review by the ARIC Steering Committee and, thus, should not be considered official.$\cong$ The variable was developed by A. Nabulsi for use in ARIC manuscript #75.

*This group reported hormone codes which had been taken since the last exam to the HHXB (Health History Form), but some of the hormone codes reported by participants as hormones failed to be classified into one of the following hormones: Estrogen, Progest, Oral Cont, Esterm, Androg, Estrandr, and Unkgonad. Note that this group is defined as former hormone users who possibly misunderstood non-hormones as hormones. We don't highly recommend use of this group.

For men this variable is automatically set to missing.
Values for HORMON02 are assigned according to the values of several intermediate variables:

VARIABLE	DESCRIPTION
CURRUSE	Checks for current use of specific hormones: 1 = Current estrogen user only. 2 = Current estrogen and progestin user. 3 = User of other hormones (oral contraceptives, estrogen creams, androgens) 4 = All other participants.
HORMTIME	Checks for current, past, never use of hormones using items RHXA16, RHXA17, RHXA20, RHXA24, RHXA27, RHXA31, RHXA34, RHXA38, RHXA4A: 1 = Unknown. 2 = Currently taking hormones. 3 = Never took hormones. 4 = Former hormone user. . = Missing value.

ESTROGEN	USING MEDICATION CODES, CHECKS FOR ESTROGEN USE: N = NONUSER OR UNKNOWN. Y = USER.
PROGESTIN	Using medication codes, checks for use of progestin: N = Nonuser or unknown. Y = User.
ORALCONT	Using medication codes, checks for use of oral contraceptives: N = Nonuser or unknown. Y = User.
ESTRCRM	Using medication codes, checks for use of estrogen creams: N = Nonuser or unknown. Y = User.
ANDROG	Using medication codes, checks for use of androgens: N = Nonuser or unknown. Y = User.
ESTRANDR	Using medication codes, checks for use of estrogen and androgen combinations: N = Nonuser or unknown. Y = User.
UNKGONAD	Using medication codes, checks for use of this hormone: N = Nonuser or unknown. Y = User.
OTHER	Using medication codes, checks for use of other hormones: N = Nonuser or unknown. Y = User.

Using these variables, values for HORMON02 are assigned according to the following conditions:

1. If CURRUSE = 1 then set HORMON02 = 1

2. If CURRUSE = 2 then set HORMON02 = 2

3. If HORMTIME = 3 then set HORMON02 = 3

4. If HORMTIME = 4 and (ESTROGEN = Y or PROGESTIN = Y or ORALCONT = Y or ESTRCRM = Y or ANDROG = Y or ESTRANDR = Y or UNKGONAD = Y or OTHER = Y) then set HORMON02 = 4.

For more detail regarding the definitions of HORMON02 and the intermediate variables, consult the SAS code that creates the DERIVED file.

6.19 BIRTHDAT (Date of Birth)

Birthdat can be found in DERIVE13 file.

6.20 GENDER (Sex)

GENDER		Sex (Uncorrected From FTRA22)	
N		Value	Description
8710		F	Female
7082		M	Male

During the closure of the AFU Medical History Data, it came to our attention that there are two ARIC Ids with gender incorrectly identified in our consolidated database. Both Ids (J252435 & J327948) involve female participants who were incorrectly identified as male in our database. The uncorrected gender variable (GENDER) stays in DERIVE25 and the corrected gender variable (CORGEND1) stays in UNOFF23. Since many analyses were already done using the UNCORRECTED gender variable, the Executive Committee has recommended to use the uncorrected gender variable (GENDER) for Visit 1 and longitudinal analyses. The corrected version could be used for cross-sectional analyses other than Visit 1.

6.21 RACEGRP (Race)

RACEGRP		Race (From FTRA23)	
N		Value	Description
34		A	Asian
4266		B	Black
14		I	American Indian or Alaskan Indian
11478		W	White

While we have been tracking all known errors, we found there are two Ids with race group incorrectly identified in our consolidated database. Both Ids (F134145 & F158363) were incorrectly identified as Whites in our database. Now F134145 is Asian and F158363 is Black. The uncorrected race variable (RACEGRP) stays in DERIVE25 and the corrected race variable (CORRACE1) stays in UNOFF23. Since many analyses were already done using the uncorrected race variable, the Executive Committee has recommended to use the uncorrected race variable (RACEGRP) for Visit 1 and longitudinal analyses. The corrected version could be used for cross-sectional analyses other than Visit *1.*

6.22 CENTER (Field Center)

CENTER		Aric Field Center (Cir)	
N		Value	Description
4035		F	Forsyth County, North Carolina
3728		J	The city of Jackson, Mississippi
4009		M	Selected northwestern suburbs of Minneapolis, Minnesota
4020		W	Washington County, Maryland

The ARIC Study collects data in four diverse communities. This design was chosen so that data could be obtained for groups which differ by geography, race, and socio-economic status. The ARIC study was not designed to select a random or representative sample of the entire U.S. population.

6.23 OCCUPN01 (Derived Occupation)

OCCUPN01		Most Recent Occupation
N	Value	Description
1	N	Never worked
3510	1	Managerial and Professional Specialty Occupations
3112	2	Technical, Sales, and Administrative Support Occupations
1692	3	Service Occupations
117	4	Farming, Forestry, and Fishing Occupations
1251	5	Precision Production, Craft, and Repair Occupations
1568	6	Operators, Fabricators, and Laborers
1561	7	Homemakers
2516	8	Retired
462	9	Missing Job code for non-homemakers or homemakers with job code
2		Missing

This is a derived occupation variable based on questions HOM55 & HOM57.

Table of Assignment of Values to OCCUPN01

	HOM55	HOM57
.N	ANY	N
1	B or C or D or E	3 - 199
2	B or C or D or E	203 - 389
3	B or C or D or E	403 - 469
4	B or C or D or E	473-499
5	B or C or D or E	503 - 699
6	B or C or D or E	703 - 889
7	A	missing
8	F or G	ANY
9	B or C or D or E or F or G	999 or missing
	Blank	Any
	A	not missing

HOM55: Current Occupation Status

Value	Description
A	Homemaking, not working outside the home
B	Employed at a job for pay, either full or part-time
C	Employed, but temporarily away from my regular job
D	Unemployed, looking for work
E	Unemployed, not looking for work
F	Retired from my usual occupation and not working
G	Retired from my usual occupation but working for pay

HOM57: Current or Most Recent Occupation Code

OCCUPATIONAL CLASSIFICATION SYSTEM: 1980 CENSUS
FIFTEEN MAJOR GROUPS IN SIX SUMMARY GROUPINGS

I.   MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS   **(003-199)**

1.	Executive, Administrative, and Managerial Occupations	Codes 003-037
2.	Professional Specialty Occupations	Codes 043-179
3.	Writers, artists, entertainers, and athletes	Codes 183-199

II. TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS   **(203-389)**

4.	Technicians and Related Support Occupations	Codes 203-235
5.	Sales Occupations	Codes 243-285
6.	Administrative Support Occupations, Including Clerical	Codes 303-389

III. <u>**SERVICE OCCUPATIONS**</u>   **(403-469)**

      7.   Private Household Occupations   Codes 403-407
      8.   Protective Service Occupations   Codes 413-427
      9.   Service Occupations, Except Protective and Private Household   Codes 433-469

IV. <u>**FARMING, FORESTRY, AND FISHING OCCUPATIONS**</u>   **(473-499)**

     10.   Farm operators and managers   Codes 473-476
     11.   Other farming, forestry and fishing occupations   Codes 477-499

V. <u>**PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS**</u>   **(503-699)**

     12.   Mechanics and repairers, Construction trades, extractive occupations, precision production
         occupations   Codes 503-699

VI. <u>**OPERATORS, FABRICATORS, AND LABORERS**</u>   **(703-889)**

     13.   Machine Operators, Assemblers, and Inspectors   Codes 703-799
     14.   Transportation and Material Moving Occupations   Codes 803-859
     15.   Handlers, Equipment Cleaners, Helpers and Laborers   Codes 863-889

6.24 ECGSEN01 (ECG Visual Coding Flag)

ECGSEN01		ECG Visual Coding Flag
N	*Value*	*Description*
12208	0	
1395	N	
2098	S	
91		Missing

This is a character variable which indicates the presence of ECG visual coding data.

Table of Assignment of Values to ECGSEN01

	ECGA02	ECGUPD02
ECGA02	N or S	Any
	Not (N or S)	Not (N or S)
ECGUPD02	Not (N or S)	N or S

6.22.1.1   ECGA02 : ECG Visual Coding Flag at ECGA file

ECGUPD02: ECG Visual Coding Flag at UC025501 file (Halifax ID<s whose ECGs were sent to Minnesota)

7. Physical Activity

7.1 WORK_I02 (Physical activity at work, Definition 2)

WORK_I02		Physical activity at work, Definition 2
N	Value	Description
15763	Range	1 - 4.875 (median=2.25 mean=2.182 std=0.947)
29		Missing

This is a score of the work index after occupations were coded. Work index is one of the three physical activity indices—work index, sport index and leisure time index.

   (1)   Individuals who never worked.

       If HOM57 =>N= then

       occupation code =>999= and process through (3).

   (2)   Individuals who are not currently working outside the home.

       If HOM55 =>A= or HOM55 =>D= or HOM55 =>E= or HOM55 =>F= then
       WORK_I02 = 1.

   (3)   Individuals working outside the home.

       (a) If RPAA40 =>D= and HOM55 is missing, then

          WORK_I02   = 1.
                            = missing, if HOM57 is missing.

       (b) If RPAA40 =>D= and HOM55 is not missing then

          $I2 = 5, I3 = 1, I4 = 1, I5 = 1, I6 = 1, I7 = 1, I8 = 1.$

          WORK_I02 $= [I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8.$
                            = missing, if HOM57 is missing.

       (c) If RPAA40 is not =>D= and HOM55 is not missing, then

          WORK_I02 $= [I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8.$
                            = missing, if either (i) HOM57 is missing
                or
                            (ii) any of RPAA40 - 46 is missing.

HOM55:   Current occupation.

I1 = HOM57:   Code of most recent occupation with its intensity level coded as Low, Medium or High by Dr. Aaron Folsom; scores of 1, 3, and 5 were assigned, respectively, for use in quantifying activity level based on the occupational code.

I2 = RPAA40:   Freq sit at work.*

I3 = RPAA41:   Freq stand at work.*

I4 = RPAA42:   Freq walk at work.*

I5 = RPAA43:   Freq lift heavy loads at work.[+]

I6 = RPAA44:   Freq tired after work.[+]

I7 = RPAA45:   Freq sweat at work.[+]

I8 = RPAA46:   Work difficulty compared to peers coded 1-2-3-4-5 based on the answer A-B-C-D-E [A = Much lighter = 1, B = Lighter = 2, C = As heavy = 3, D = Heavier = 4, and E = Much heavier = 5].

*The score of I2, I3 or I4 is coded 1-2-3-4-5 based on the answer N-L-M-O-A [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and A = Always = 5].

*The score of I5, I6 or I7 is coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very Often = 5].

I2 - I8   represent ordinal integer re-coding scores of responses to selected items on the Respiratory Symptoms/Physical Activity (RPAA) Form.

7.2   WORK_I03 (Physical activity at work, Definition 3)

WORK_I03		Physical activity at work, Definition 3)
N	Value	Description
11426	Range	1 - 4.875 (median=2.625 mean=2.6303 std=0.7109)
4366		Missing

This is a score of the interim work index after occupations were coded. Work index is one of the three physical activity indices—work index, sport index and leisure time index.

(1)   Individuals who never worked.

       If HOM57 =>N= then

       occupational code =>999= and process through (3).

(2)   Individuals who are not currently working outside the home.

       If HOM55 =>A= or HOM55 =>D= or HOM55 =>E= or HOM55 =>F= then

       WORK_I03 = missing.

(3)   Individuals working outside the home.

(a) If RPAA40 =>D= and HOM55 is missing then

WORK_I03 = missing.

(b) If RPAA40 =>D= and HOM55 is not missing then

I2 = 5, I3 = 1, I4 = 1, I5 = 1, I6 = 1, I7 = 1, I8 = 1.

WORK_I03   = [I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 +I8]/8

= missing, if HOM57 is missing.

(c) If RPAA40 is not=>D= and HOM55 is not missing then

WORK_I03   = [I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8

= missing, if either (i) HOM57 is missing,
or

(ii) any of RPAA40 - 46 is missing.

HOM55:   Current occupation

I1 = HOM57: Code of most recent occupation with its intensity level coded as Low, Medium or High by Dr. Aaron
Folsom; scores of 1, 3, and 5 were assigned, respectively, for use in quantifying activity level based
on the occupational code.

I2 = RPAA40:   Freq sit at work.*

I3 = RPAA41:   Freq stand at work.*

I4 = RPAA42:   Freq walk at work.*

I5 = RPAA43:   Freq lift heavy loads at work.[+]

I6 = RPAA44:   Freq tired after work.[+]

I7 = RPAA45:   Freq sweat at work.[+]

I8 = RPAA46: Work difficulty compared to peers coded 1-2-3-4-5 based on the answer A-B-C-D-E [A = Much
lighter = 1, B = Lighter = 2, C = As heavy = 3, D = Heavier = 4, and E = Much heavier = 5].

*The score of I2, I3 or I4 is coded 1-2-3-4-5 based on the answer N-L-M-O-A [N = Never = 1, L = SeLdom = 2, M =
SoMetimes = 3, O = Often = 4, and A = Always = 5].

*The score of I5, I6 or I7 is coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M =
SoMetimes = 3, O = Often = 4, and V = Very often = 5].

I2 - I8   represent ordinal integer re-coding scores of responses to selected items on the Respiratory
Symptoms/Physical Activity (RPAA) Form

7.3 SPRT_I01 (Discontinued)

7.4 SPRT_I02 (Sport during leisure time)

SPRT_I02		Sport during leisure time
N	Value	Description
15726	Range	1 - 5 (median=2.25 mean=2.428 std=0.794)
66		Missing

This is a score of sport index during leisure time. It is one of the three physical activity indices ---- work index, sport index and leisure time index.

SPRT_I02   = (I9 + I10 +I11 + I12)/4.
              = missing, if one of the above I scores is missing.

I9 - I12 represent ordinal integer re-coding scores of responses to selected items on the Respiratory
              Symptoms/Physical Activity (RPAA) Form.

    (1)   I9: sum of 4 simple sport scores coded 1-2-3-4-5 based on its values falling in the ranges: (0 -< 0.01) - (0.01 -< 4) - (4 -< 8) - (8 -< 12) - (12+).

    I9   = 1, if RPAA47 = **<**N**<**.
               = (I9_1 + I9_2 + I9_3 + I9_4) * 5/4
               = missing, if one of the simple sport scores is missing.

         RPAA47:   Exercise or sports play?

    (a) Simple Sport Score (intensity * time * proportion)*

	intensity * time * prop	remarks
I9_1	RPAA48 * RPAA49 * RPAA50	
I9_2	RPAA52 * RPAA53 * RPAA54	0, if RPAA51 = **<**N**<**
I9_3	RPAA56 * RPAA57 * RPAA58	0, if RPAA51 or RPAA55 = **<**N**<**
I9_4	RPAA60 * RPAA61 * RPAA62	0, if RPAA51 or RPAA55 or RPAA59 = **<**N**<**

    * missing, if one of the relevant RPAA scores is missing.

    (b) Intensity: The degree of most frequent sport coded (0.76), (1.26) or (1.76) based on the activity being light, moderate or heavy.

RPAA48:   Sport or exercise code1.
RPAA52:   Sport or exercise code2.
RPAA56:   Sport or exercise code3.
RPAA60:   Sport or exercise code4.

(c) Time: Hours a week spent for sport or exercise coded (0.5) - (1.5) - (2.5) - (3.5) - (4.5) based on the answer A-B-C-D-E.

[A = (Less than 1) = 0.5,
B = (At least 1 but not quite 2) = 1.5,
C = (At least 2 but not quite 3) = 2.5,
D = (At least 3 but not quite 4) = 3.5,
and E = (4 or more) = 4.5].

RPAA49:   hours per week spent on Q48 activity.
RPAA53:   hours per week spent on Q52 activity.
RPAA57:   hours per week spent on Q56 activity.
RPAA61:   hours per week spent on Q60 activity.

(d) Proportion: months a year spent for sport or exercise coded (0.04) - (0.17) - (0.42) - (0.67) - (0.92) based on the answer A-B-C-D-E.

[A = (Less than 1) = 0.04,
B = (At least 1 but not quite 4) = 0.17,
C = (At least 4 but not quite 7) = 0.42,
D = (At least 7 but not quite 10) = 0.67,
and E = (10 or more) = 0.92].

RPAA50:   months per year spent on Q48 activity.
RPAA54:   months per year spent on Q52 activity.
RPAA58:   months per year spent on Q56 activity.
RPAA62:   months per year spent on Q60 activity.

(2) I10 = RPAA64: Freq leisure sport-exercise coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5].

(3) I11 = RPAA65: Leisure sport-exercise activity V peers coded 1-2-3-4-5 based on the answer A-B-C-D-E [A = Much less = 1, B = Less = 2, C = The same = 3, D = More = 4, and E = Much more = 5].

(4) I12 = RPAA66: Freq sweat at leisure activity coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5], or score = 1, if RPAA47 = =>N=.

7.5 LISR_I01 (Physical activity during leisure time excluding sport)

LISR_I01		Physical activity during leisure time excluding sport
N	Value	Description
15755	Range	1 - 4.5 (median=2.25 mean=2.356 std=0.575)
37		Missing

This is a score of leisure time index. It is one of the three physical activity indices—work index, sport index and leisure time index.

LISR_I01   = [(6 - I13) + I14 + I15 + I16]/4.
                = missing, if one of the above I scores is missing.

I13 = RPAA67: Freq watch TV at leisure activity.*

I14 = RPAA68:   Freq walk at leisure activity.*

I15 = RPAA69:   Freq bicycle at leisure activity.*

I16 = RPAA70:   Minutes bike or walk to work or shop.[+]

*The score of I13, I14 or I15 is coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5].

+The score of I16 is coded 1-2-3-4-5 based on the answer A-B-C-D-E

            [A = (Less than 5) = 1,
            B = (At least 5 but not quite 15) = 2,
            C = (At least 15 but not quite 30) = 3,
            D = (At least 30 but not quite 45) = 4, and
            E = (45 or more) = 5].

I13 - I16 represent ordinal integer re-coding scores of responses to selected items on the Respiratory Symptoms/Physical Activity (RPAA) Form.

8. Plaque Derived Variables

8.1 BIFSHD01 (Shadowing in either carotid bifurcation)

BIFSHD01		Shadowing In Either Carotid Bifurcation
N	*Value*	*Description*
181	T	Missing
14333	0	No Shadow
896	1	Shadow
382		Missing

Algorithm:

1. If [LBIFSHAD = >y=] or [RBIFSHAD = >y=]

    then set BIFSHD01 to 1.

2. Else if [LBIFSHAD = >n=] or [RBIFSHAD = >n=]

    then set BIFSHD01 to 0.

3. Else set BIFSHD01 to missing (.T).

LBIFSHAD: Shadowing in the left carotid bifurcation.
RBIFSHAD: Shadowing in the right carotid bifurcation.

8.2 INTSHD01 (Shadowing in either internal carotid artery)

INTSHD01		Shadowing In Either Internal Carotid Artery
N	*Value*	*Description*
385	T	
14606	0	No shadow
419	1	Shadow
382		Missing

INTSHD01 is derived in a similar manner to BIFSHD01 using the following variables:

LINTSHAD: Shadowing in the left internal carotid artery.
RINTSHAD: Shadowing in the right internal carotid artery.

8.3 COMSHD01 (Shadowing in either common carotid artery)

COMSHD01			Shadowing In Either Common Carotid
N		Value	Description
121		T	
15222		0	No shadow
67		1	Shadow
382			Missing

Algorithm:

1. If [LOPTSHAD = **<**y**<**] or [ROPTSHAD = **<**y**<**]

    then set COMSHD01 to 1.

2. Else if [LOPTSHAD = **<**n**<**] or [ROPTSHAD = **<**n**<**]

    then set COMSHD01 to 0.

3. Else set COMSHD01 to missing (.T)

LOPTSHAD: Shadowing in the left common carotid artery measured from the optimal angle.
ROPTSHAD: Shadowing in the right common carotid artery measured from the optimal angle.

8.4 BIFPLQ01 (Plaque in either carotid bifurcation)

BIFPLQ01			Plaque In Either Carotid Bifurcation
N		Value	Description
182		T	Missing
10897		0	No plaque
4331		1	Plaque
382			Missing

Algorithm:

1. If [LBIFPLAQ = >y=] or [RBIFPLAQ = >y=]

    then set BIFPLQ01 to 1.

2. Else if [LBIFPLAQ = >n=] or [RBIFPLAQ = >n=]

    then set BIFPLQ01 to 0.

3. Else set BIFPLQ01 to missing (.T).

LBIFPLAQ: Plaque in the left carotid bifurcation.
RBIFPLAQ: Plaque in the right carotid bifurcation.

8.5   INTPLQ01 (Plaque in either internal carotid artery)

INTPLQ01		Plaque In Either Internal Carotid Artery	
N	Value	Description
387	T	
12987	0	No plaque
2036	1	Plaque
382		Missing

INTPLQ01 is derived in a similar manner to BIFPLQ01 using the following variables:

LINTPLAQ: Plaque in the left internal carotid artery.
RINTPLAQ: Plaque in the right internal carotid artery.

8.6   COMPLQ01 (Plaque in either common carotid artery)

COMPLQ01		Plaque In Either Common Carotid	
N	Value	Description
121	T	
14040	0	No plaque
1249	1	Plaque
382		Missing

Algorithm:

1.   If [LOPTPLAQ = "y"] or [ROPTPLAQ = "y"]

     then set COMPLQ01 to 1.

2.   Else if [LOPTPLAQ = "n"] or [ROPTPLAQ = "n"]

     then set COMPLQ01 TO 0.

3.   Else set COMPLQ01 to missing (.T).

LOPTPLAQ: Plaque in the left common carotid artery measured from the optimal angle.
ROPTPLAQ: Plaque in the right common carotid artery measured from the optimal angle.

8.6 LCOMPS01 (Plaque/shadowing (both, 1 w/o other, neither) in the left common carotid)

LCOMPS01		Plaque/shadowing (both, 1 w/o other, neither) in the left common carotid
N	Value	Description
662	T	
34	1	Plaque and shadowing
710	2	Plaque only
5	3	Shadowing only
13999	4	No plaque or shadow
382		Missing

Algorithm:

1. If [LOPTSHAD = **<**] or [LOPTPLAQ = **<**]

    then set LCOMPS01 to missing (.T).

2. Else if [[LOPTSHAD = "y"] and [LOPTPLAQ = "y"]]

    then set LCOMPS01 to 1.

3. Else if [LOPTPLAQ = "y"]

    then set LCOMPS01 to 2.

4. Else if [LOPTSHAD = "y"]

    then set SCOMPS01 to 3.

5. Else if [LOPTSHAD = "n"] and [LOPTPLAQ = "n"]

    then set LCOMPS01 to 4.

    LOPTSHAD: Shadowing in the left common carotid artery measured from the optimal angle.

    LOPTPLAQ: Plaque in the left common carotid artery measured from the optimal angle.

    The following are derived in a similar manner using the variables indicated:

8.7 RCOMPS01 (Plaque/shadowing (both, 1 w/o other, neither) in the right common carotid)

RCOMPS01		Plaque/shadowing (both, 1 w/o other, neither) in the right common carotid
N	Value	Description
771	T	
21	1	Plaque and shadowing
713	2	Plaque only
10	3	Shadowing only
13895	4	No plaque or shadow
382		Missing

ROPTSHAD: Shadowing in the right common carotid artery measured from the optimal angle.

ROPTPLAQ: Plaque in the right common carotid artery measured from the optimal angle.

8.8 LBIFPS01 (Plaque/shadowing (both, 1 w/o other, neither) in the left carotid bifurcation

LBIFPS01		Plaque/shadowing (both, 1 w/o other, neither) in the left carotid bifurcation
N	Value	Description
736	T	
483	1	Plaque and shadowing
2224	2	Plaque only
48	3	Shadowing only
11919	4	No plaque or shadow
382		Missing

LBIFSHAD: Shadowing in the left carotid bifurcation.

LBIFPLAQ: Plaque in the left carotid bifurcation.

8.9 RBIFPS01 (Plaque/shadowing (both, 1 w/o other, neither) in the right carotid bifurcation)

RBIFPS01		Plaque/shadowing (both, 1 w/o other, neither) in the right carotid bifurcation	
N	Value	Description
669	T	
477	1	Plaque and shadowing
2399	2	Plaque only
52	3	Shadowing only
11813	4	No plaque or shadow
382		Missing

RBIFSHAD: Shadowing in the right carotid bifurcation.

RBIFPLAQ: Plaque in the right carotid bifurcation.

8.10 LINTPS01 (Plaque/shadowing (both, 1 w/o other, neither) in the left internal carotid

LINTPS01		Plaque/shadowing (both, 1 w/o other, neither) in the left internal carotid
N	Value	Description
1189	T	
190	1	Plaque and shadowing
963	2	Plaque only
14	3	Shadowing only
13054	4	No plaque or shadow
382		Missing

LINTSHAD: Shadowing in the left internal carotid.

LINTPLAQ: Plaque in the left internal carotid.

8.11 RINTPS01 (Plaque/shadowing (both, 1 w/o other, neither) in the right internal carotid)

	RINTPS01		Plaque/shadowing (both, 1 w/o other, neither) in the right internal carotid
N		Value	Description
1664		T	
250		1	Plaque and shadowing
1038		2	Plaque only
16		3	Shadowing only
12442		4	No plaque or shadow
382			Missing

RINTSHAD: Shadowing in the right internal carotid.

RINTPLAQ: Plaque in the right internal carotid.

8.12 COMPS01 (Plaque/shadowing (both, 1 w/o other, neither) in either common carotid)

	COMPS01		Plaque/Shadowing In Either Common
N		Value	Description
121		T	
52		1	Plaque and shadowing
1197		2	Plaque only
15		3	Shadowing only
14025		4	No plaque or shadow
382			Missing

Algorithm:

1. If [LCOMPS01 = 1] or [RCOMPS01 = 1]

    then set COMPS01 to 1.

2. Else if [LCOMPS01 = 2] or [RCOMPS01 =2]

    then set COMPS01 to 2.

3. Else if [LCOMPS01 = 3] or [RCOMPS01 = 3]

    then set COMPS01 to 3.

4. Else if [LCOMPS01 = 4] or [RCOMPS01 = 4]

then set COMPS01 to 4.

5. Else set COMPS01 to missing (.T).

LCOMPS01: Plaque/shadowing in the left common carotid.

RCOMPS01: Plaque/shadowing in the right common carotid.

The following are derived in a similar manner using the variables indicated:

8.13 BIFPS01 (Plaque/shadowing (both, 1 w/o other, neither) in either carotid bifurcation)

BIFPS01		Plaque/Shadowing In Either Bifurcation
N	Value	Description
182	T	
811	1	Plaque and shadowing (same side)
3520	2	Plaque only
80	3	Shadowing only
10817	4	No plaque or shadow (on either side)
382		Missing

LBIFPS: Plaque/shadowing in the left carotid bifurcation.

RBIFPS: Plaque/shadowing in the right carotid bifurcation.

8.14 INTPS01 (Plaque/shadowing (both, 1 w/o other, neither) in either internal carotid)

INTPS01		Plaque/shadowing (both, 1 w/o other, neither) in either internal carotid
N	Value	Description
387	T	
389	1	Plaque and shadowing (same side)
1647	2	Plaque only
29	3	Shadowing only
12958	4	No plaque or shadow (on either side)
382		Missing

LINTPS01: Plaque/shadowing in the left internal carotid.

RINTPS01: Plaque/shadowing in the right internal carotid.

8.15 LPLQSD01 (Plaque/shadowing (both, 1 w/o other, neither) in any left carotid site)

LPLQSD01		Plaque/shadowing (both, 1 w/o other, neither) in any left carotid site
N	Value	Description
1907	T	
557	1	Plaque and shadowing (any site)
2533	2	Plaque only
44	3	Shadowing only
10369	4	No plaque or shadow (at both sides)
382		Missing

Algorithm:

1. If [LCOMPS01 - .T] or [LBIFPS01 = .T] or [LINTPS01 = .t]

    then set LPLQSD01 to missing (.T).

2. Else if [LCOMPS01 = 1] or [LBIFPS01 = 1] or [LINTPS01 =1]

    then set LPLQSD01 to 1.

3. Else if [[LCOMPS01 = 2] or [LBIFPS01 =2] or [LINTPS01 = 2]

    then set LPLQSD01 to 2.

4. Else if [LCOMPS01 = 3] or [LBIFPS01 = 3] or [LINTPS01 = 3]

    then set LPLQSD01 to 3.

5. Else if [LCOMPS01 = 4] and [LBIFPS01 = 4] and [LINTPS01 = 4]

    then set LPLQSD01 to 4.

LCOMPS01:   Plaque/shadowing in the left common carotid.
LBIFPS01:   Plaque/shadowing in the left bifurcation carotid.
LINTPS01:   Plaque/shadowing in the left internal carotid.

8.16 RPLQSD01 (Plaque/shadowing (both, 1 w/o other, neither) in any right carotid site

RPLQSD01		Plaque/shadowing (both, 1 w/o other, neither) in any right carotid site
N	Value	Description
2406	T	
558	1	Plaque and shadowing (any site)
2656	2	Plaque only (any site)
51	3	Shadowing only (any site)
9739	4	No plaque or shadow (at both sites)
382		Missing

RPLQSD01 is created in a similar manner to LPLQSD01 using the following variables:

RCOMPS01: Plaque/shadowing in the right common carotid.

RBIFPS01: Plaque/shadowing in the right bifurcation carotid.

RINTPS01: Plaque/shadowing in the right internal carotid.

8.17 PLQSHD01 (Plaque/shadowing (both, 1 w/o other, neither) in any carotid site)

PLQSHD01		Plaque/shadowing (both, 1 w/o other, neither) in any carotid site
N	Value	Description
3544	T	Missing
824	1	Plaque and shadowing (any site)
3345	2	Plaque only (any site)
54	3	Shadowing only (any site)
7643	4	No plaque or shadow (at both sites)
382		Missing

Algorithm:

1. If [LPLQSD01 = .T] or [RPLQSD01 - .T]

    then set PLQSHD01 to missing (.T).

2. Else if [LPLQSD01 = 1] or [RPLQSD01 =1]

    then set PLQSHD01 to 1.

3. Else if [LPLQSD01 =2] or [RPLQSD01 = 2]

    then set PLQSHD01 to 2.

4. Else if [LPLQSD01 = 3] or [RPLQSD01 = 3]

then set PLQSHD01 to 3.

5. Else if [LPLQSD01 = 4] and [RPLQSD01 = 4]

     then set PLQSHD01 to 4.

LPLQSD01:   Plaque/shadowing (both, 1 w/o other, neither) in any left carotid site.
RPLQSD01:   Plaque/shadowing (both, 1 w/o other, neither) in any right carotid site.

8.18 PLAQUE01 (Plaque (with or without shadowing) in any carotid site)

PLAQUE01		Plaque (with or without shadowing) in any carotid site
N	Value	Description
3544	T	Missing
7697	0	No plaque
4169	1	Plaque
382		Missing

Algorithm:

1. If [PLQSHD01 = .T]

     then set PLAQUE01 to missing (.T).

2. Else if [PLQSHD01 = 1] or [PLQSHD01 = 2]

     then set PLAQUE01 to 1.

3. Else set PLAQUE01 to 0.

     PLQSHD01: Plaque/shadowing (both, 1 w/o other, neither) in any carotid site.

8.19 PLAQUE03 (Plaque in any carotid site - alternative definition)

PLAQUE03		Plaque in any carotid site - alternative definition
N	Value	Description
47	T	Else if not=0 or not=1
10283	0	No plaque
5080	1	Plaque
382		Missing

Algorithm:

1. If [LOPTPLAQ = **<y<**] or [LBIFPLAQ = **<y<**] or [LINTPLAQ = **<y<**] or

     [ROPTPLAQ = **<y<**] or [RBIFPLAQ = **<y<**] or [RINTPLAQ = **<y<**]

then set PLAQUE03 =1.

2. Else if [LOPTPLAQ = ◄n◄] or [LBIFPLAQ = ◄n◄] or [LINTPLAQ = ◄n◄] or

   [ROPTPLAQ = ◄n◄] or [RBIFPLAQ = ◄n◄] or [RINTPLAQ = ◄n◄]

   then set PLAQUE03 =0.

3. Else set PLAQUE03 = .T.

9. Recalibrated Lipids

9.1 LDL02 (Recalibrated LDL Cholesterol)

LDL02		Recalibrated LDL Cholesterol
N	*Value*	*Description*
15315	Range	0 - 504.6 (median=135.227 mean=137.6444 std=39.3509)
477		Missing

LDL02 was created by calculating LDL values as follows:

If   (LIPA01 = missing) or

        (LIPA02 > 400 or LIPA02 = missing) or

        (HDL01 = missing) then LDL02 = missing

Else   LDL02 = max (0, (LIPA01 - HDL01 - (LIPA02/5)))

        LIPA01: Total cholesterol in mg/dL.

        LIPA02: Total triglycerides in mg/dL.

9.2 HDL01 (HDL Cholesterol)

HDL01		HDL Cholesterol (Recalibrated Lipid)
N	*Value*	*Description*
15543	Range	9.63 - 163 (median=49 mean=51.6 std=17.1)
249		Missing

HDL01 was created by reducing the value of LIPA03 by 3.7% for all Visit 1 patients whose visit date is before June 11, 1989 or whose ID is one of the following:

W286621   W286831
W286698   W286794
W286682   W243375
W286725   W243369
    W286946

If V1DATE01 NE missing and < June 11, 1989 or ID = <W286621...W286946' then HDL01 = .963 * LIPA03 Else HDL01 = LIPA03.

9.3 HDL201 (HDL2 Cholesterol)

HDL201		HDL2 Cholesterol (Recalibrated Lipid)
N	Value	Description
15541	Range	0 - 95.337 (median=12.519 mean=14.2983 std=8.8019)
251		Missing

HDL301 was created by subtracting HDL301 from HDL01 for all patients regardless of visit date. Set the value of HDL201 to 0 if negative.

HDL201 = HDL01 - HDL301
  If HDL201 NE missing and < 0 then HDL201 = 0.

9.4 HDL301 (HDL3 Cholesterol)

HDL301		HDL3 Cholesterol (Recalibrated Lipid)
N	Value	Description
15541	Range	1.926 - 99 (median=36.594 mean=37.2934 std=11.1269)
251		Missing

HDL301 was created by reducing the value of LIPA04 by 3.7% for all Visit 1 patients whose visit date is before June 11, 1989 or whose ID is listed above.

If V1DATE01 NE missing and < June 11, 1989 or ID = ‹W286621...W286946'

  then HDL301 = .963 * LIPA04

Else HDL301 = LIPA04.

10. SI Unit Change

10.1 GLUSIU01 (Recalibrated Glucose in SI Units)

GLUCOS01		Derived Glucose Value In mg/dL
N	Value	Description
15642	Range	35 - 628 (median=99.189 mean=108.9557 std=40.5656)
150		Missing

This variable expresses blood glucose level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.05551	mmol/L

GLUSIU01 = GLUCOS01 * CF

GLUCOS01: Blood Glucose Level in mg/dL.

10.2 TCHSIU01 (Total Cholesterol in SI Units)

TCHSIU01		Total Cholesterol in SI Units
N	Value	Description
15541	Range	1.24128 - 15.36084 (median=5.48232 mean=5.558557 std=1.087821)
251		Missing

This variable expresses total cholesterol in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.02586	mmol/L

TCHSIU01 = LIPA01 * CF

LIPA01: Total Cholesterol in mg/dL.

10.3 HDLSIU02 (Recalibrated HDL Cholesterol in SI Units)

HDLSIU02		Recalibrated HDL Cholesterol in SI Units
N	Value	Description
15543	Range	0.2490318 - 4.21518 (median=1.26714 mean=1.333994 std=0.442176)
249		Missing

This variable expresses HDL cholesterol level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.02586	mmol/L

HDLSIU02 = HDL01 * CF

HDL01: HDL Cholesterol in mg/dL

10.4 HD3SIU02 (Recalibrated HDL(3) Cholesterol in SI Units)

HD3SIU02		Re-Calibrated HDL(3) Cholesterol in SI Units
N	Value	Description
15541	Range	0.04980636 - 2.56014 (median=0.94632084 mean=0.964407699 std=0.287740891)
251		Missing

This variable expresses HDL(3) cholesterol level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.02586	mmol/L

HD3SIU02 = HDL301 * CF

HDL301: HDL(3) Cholesterol in mg/dL

10.5 HD2SIU02 (Recalibrated HDL(2) Cholesterol in SI Units)

HD2SIU02		Re-Calibrated HDL(2) Cholesterol in SI Units
N	Value	Description
15541	Range	0 - 2.46541482 (median=0.32374134 mean=0.369753082 std=0.227618416)
251		Missing

This variable expresses HDL(2) cholesterol level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.02586	mmol/L

HD2SIU02 = HDL201 * CF

HDL201: HDL(2) Cholesterol in mg/dL

10.6 APASIU01 (Apolipoprotein AI in SI Units)

APASIU01		Apolipoprotein AI in SI Units
N	Value	Description
15543	Range	200 - 3040 (median=1300 mean=1329.4 std=313.6)
249		Missing

This variable expresses Apolipoprotein AI level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	10.0	mg/L

APASIU01 = LIPA06 * CF

LIPA06: Apolipoprotein AI in mg/dL

10.7 APBSIU01 (Apolipoprotein B in SI Units)

APBSIU01		Apolipoprotein B in SI Units
N	Value	Description
15537	Range	120 - 2940 (median=900 mean=935.8 std=290.6)
255		Missing

This variable expresses Apolipoprotein B level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	10.0	mg/L

APBSIU01 = LIPA07 * CF

LIPA07: Apolipoprotein B in mg/dL

10.8 LDLSIU02 (Recalibrated LDL Cholesterol in SI Units)

LDLSIU02		Recalibrated LDL Cholesterol in SI Units
N	Value	Description
15315	Range	0 - 13.048956 (median=3.49697022 mean=3.559483269 std=1.017614678)
477		Missing

This variable expresses LDL cholesterol level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.02586	mmol/L

LDLSIU02 = LDL02 * CF

LDL02: LDL Cholesterol in mg/dL.

10.9 TRGSIU01 (Triglycerides in SI Units)

TRGSIU01		Total Triglycerides In SI Units
N	Value	Description
15544	Range	0.27096 - 21.76712 (median=1.2419 mean=1.48874 std=1.02141)
248		Missing

This variable expresses Total Triglycerides in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
mg/dL	0.01129	mmol/L

TRGSIU01 = LIPA02 * CF

LIPA02: Total Triglycerides in mg/dL.

10.10 INSSIU01 (Insulin in SI Units)

INSSIU01		Insulin in SI Units
N	Value	Description
15640	Range	7.175 - 6737.325 (median=64.575 mean=102.3107 std=209.5170)
152		Missing

This variable expresses Insulin level in the System International (SI) unit system.

Present system	Conversion factor (CF)	SI Unit system
uU/mL	7.175	pmol/L

INSSIU01 = CHMA16 * CF

Note: (1) "u" is micro (10^{-6}) and "U" is international unit.

(2) "p" is pico (10^{-12}).

CHMA16: Insulin in uU/mL.

11. Smoking

11.1 CIGT01 (Cigarette smoking status)

CIGT01		Cigarette Smoking Status
N	*Value*	*Description*
4132	1	Current smoker
5072	2	Former smoker
6572	3	Never smoker
5	4	Unknown, but one of the above three categories may be ruled out
11		Missing

Table of assignment of values to CIGT01

HOM Q28:   HOM Q30: Do you now smoke cigarettes?

Have you ever

smoked cigarettes?

	Y	N	MISSING
Y	1	2	4 (d)
N	Missing (a)	3	3
Missing	1 (b)	4 (c)	Missing

Footnotes to the table:

   (a) Bad data (contradictory answers)

   (b) Even though Q28 is not answered, Q30 defines the person as a current smoker

   (c) Could be either former or never smoker

   (d) Could be either former or current smoker

11.2 CIGTYR01 (Cigarette years of smoking)

CIGTYR01		Cigarette Years Of Smoking
N	Value	Description
15513	Range	0 - 4851 (median=100 mean=321.3 std=436.7)
279		Missing

Average number of cigarettes per day times the number of years smoked.

i.   Current regular smokers [(CIGT01 = 1) and (HOM29 > 0)] or

former regular smokers [(CIGT01 = 2 and HOM29 > 0)]

CIGTYR01 = HOM35 X [(years smoked) - (years quit)]

ii.   Never regularly smoked [(CIGT01 = 3) or (HOM29 = 0)]

CIGTYR01 = 0

iii.   Any of the following could not be determined:

a.   Regular smoking status.

b.   Years quit if a current or former regular smoker.

c.   Years smoked if a current or former regular smoker.

CIGTYR01 = missing

(years quit)	= HOM34	if (HOM33 = Y) or [(HOM33 is missing) and (HOM34 is not missing)]
	= 0	if HOM33 = N
	= missing	Otherwise

(years smoked)	= VIAGE01 - HOM29	if a current smoker.
	= HOM31 - HOM29	if an ex-smoker
	= missing	if difference in ages cannot be determined

HOM29:   How old were you when you first started regular cigarette smoking? Enter <00< if never smoked regularly.

HOM31:   How old were you when you stopped?

HOM33:   During the years that you smoked, was there ever a period of one year or more that you did not smoke?

HOM34:   For how many years did you not smoke cigarettes?

HOM35:   On the average of the entire time you smoked, how many cigarettes did you smoke per day? Code ❮00❮ if less than one per day.

CIGT01:Derived variable for cigarette status.

V1AGE01:   Derived variable for age at visit1.

11.3 PIPE01 (Pipe smoking status)

PIPE01		Pipe Smoking Status
N	Value	Description
271	1	Current regular smoker
1299	2	Former regular smoker
14199	3	Never regular smoker
6	4	Unknown, but one of the above three categories may be ruled out
17		Missing

Table of assignment of values to PIPE01

HOM Q37:   HOM Q39: Do you now smoke a pipe?

Have you ever smoked a pipe regularly?

	Y	N	MISSING
Y	1	2	4 (d)
N	Missing (a)	3	3
Missing	1 (b)	4 (c)	Missing

Footnotes to the table:

(a) Bad data (contradictory answers)

(b) Even though Q37 is not answered, Q39 defines the person as a current smoker

(c) Could either be former or never regular smoker

(d) Could be either former or current regular smoker

11.4 PIPEYR01 (Ounce years of smoking)

PIPEYR01		Ounce Years Of Smoking
N	Value	Description
15683	Range	0 - 132.85714286 (median=0 mean=0.4 std=3.1)
109		Missing

Average number of ounces per day times the number of years smoked.

i.   Current regular smokers (PIPE01 = 1) or Former regular smokers (PIPE01 = 2)

PIPEYR01 = (HOM42)/7 X (years smoked)

ii.   Never regularly smoked (PIPE01 = 3)

PIPEYR01 = 0

iii.   Any of the following could not be determined:

    a.   Regular smoking status.

    b.   Years smoked if a current or former regular smoker.

PIPEYR01 = missing

(years smoked)	= V1AGE01 - HOM38	if a current regular smoker.
	= HOM40 - HOM38	if a former regular smoker.
	= missing	if difference in ages cannot be determined.

HOM38:   How old were you when you started to smoke a pipe regularly?
HOM40:   How old were you when you stopped?
HOM42:   On the average of the entire time you smoked a pipe, how much pipe tobacco did you smoke per week? (ounces per week). Code"00" if less than one per day.
PIPE01:   Derived variable for pipe smoking status.
V1AGE01:   Derived variable for age at visit

11.5 IGR01 (Cigar/Cigarillo smoking status)

CIGR01			Cigar/Cigarillo Smoking Status
N		*Value*	*Description*
290		1	Current regular smoker
757		2	Former regular smoker
14718		3	Never regular smoker
7		4	Unknown, but one of the above three categories may be ruled out
20			Missing

Table of assignment of values to CIGR01

HOM Q44:   HOM Q46: Do you know smoke cigars/cigarillos?

Have you ever

smoked cigars or

cigarillos regularly?

	Y	N	MISSING
Y	1	2	4 (d)
N	Missing (a)	3	3
Missing	1 (b)	4 (c)	Missing

Footnotes to the table:

(a) Bad data (contradictory answers)

(b) Even though Q44 is not answered, Q46 defines the person as a current regular smoker

(c) Could be either former or never regular smoker

(d) Could be either former or current regular smoker

11.6 CIGRYR01 (Cigar/Cigarillo years of smoking)

CIGRYR01		Cigar/Cigarillo Years Of Smoking	
N	Value	Description
15719	Range	0 - 424.28571429 (median=0 mean=1.9 std=15.1)
73		Missing

Average number of cigars/cigarillos per day times the number of years smoked.

i. Current regular smokers (CIGR01 = 1) or former regular smokers (CIGR01 = 2)

CIGRYR01 = (HOM48)/7 X (years smoked)

ii. Never regularly smoked (CIGR01 = 3)

CIGRYR01 = 0

iii. Any of the following could not be determined:

    a. Regular smoking status.

    b. Years smoked if a current or former smoker.

CIGRYR01 = missing

(years smoked)	= V1AGE01 - HOM45	if a current regular smoker.
	= HOM47 - HOM45	if a former regular smoker.
	= missing	if difference in ages cannot be determined.

HOM45: How old were you when you started smoking (cigars/cigarillos) regularly?

HOM47: How old were you when you stopped?

HOM49: On the average over the entire time you smoked (cigars/cigarillos), how many (cigars/cigarillos) did you smoke per week? (ounces per week). Code <00< if less than one per day.

CIGR01: Derived variable for pipe smoking status.

V1AGE01: Derived variable for age at visit 1.

11.7 CURSMK01 (Current cigarette smoker)

CURSMK01		Current Cigarette Smoker	
N	Value	Description
16	T	
11644	0	
4132	1	

CURSMK01 is a categorical variable that takes values according to the definition table below:

CURSMK01	HOM28	HOM30
Y	Y or Missing	Y
N	N	Not Y
	Y or Missing	N
.	N	Y
	not N	Missing

HOM28:Have you ever smoked cigarettes? Yes, No

HOM30:Do you now smoke cigarettes? Yes, No

11.8 FORSMK01 (Former cigarette smoker)

FORSMK01		Former Cigarette Smoker
N	Value	Description
16	T	
10704	0	No
5072	1	Yes

FORSMK01 is a categorical variable that takes values according to the definition table below:

FORSMK01	HOM28	HOM30
Y	Y	N
N	N	N or Missing
	Y or Missing	Y
.	N	Y
	Y	Missing
	Missing	Missing or N

HOM28:   Have you ever smoked cigarettes? Yes, No

HOM30:   Do you now smoke cigarettes? Yes, No

11.9 EVRSMK01 (Ever smoked cigarettes)

EVRSMK01		*Ever Smoked Cigarettes*
N	*Value*	*Description*
11	T	
6572	0	No
9209	1	Yes

EVRSMK01 is a categorical variable that takes values according to the definition table below:

EVRSMK01	HOM28	HOM30
Y	Y	any
	Missing	Y
N	N	not Y
.	N	Y
	Missing	not Y

HOM28:Have you ever smoked cigarettes? Yes, No

HOM30:Do you now smoke cigarettes? Yes, No

12. Cornell Voltage LVH

12.1 LVHSCR01

LVHSCR01		Absolute value of ECGRA198 plus ECGRA170 Cornell Voltage In Uv (S In V3+r In Avl)
N	Value	Description
15262	Range	102 - 5051 (median=1160 mean=1227.6 std=552.7)
530		Missing

LVHSCR01 is a continuous Visit 1 variable defined to be the absolute value of ECGRA198 plus ECGRA170.

LVHSCR01 = | ECGRA198 | + ECGRA170

= Missing if | ECGRA198 | + ECGRA170 < 100 uV

ECGRA198: S amplitude in V3.

ECGRA170: R amplitude in AVL.

12.2 NLVHSC01

NLVHSC01		Cornell Voltage In nm
N	Value	Description
15262	Range	1.02 - 50.51 (median=11.6 mean=12.28 std=5.53)
530		Missing

NLVHSC01 is a continuous Visit 1 variable defined to be LVHSCR01 divided by 100.

NLVHSC01 = LVHSCR01 / 100.

12.3 CLVH01

CLVH01		LVH Present By Cornell Definition
N	Value	Description
14914	0	Male/Female less than or equal to 28
348	1	Male greater than 28/Female greater than 22
530		Missing

CLVH01 is a dichotomous Visit 1 LVH variable. The algorithm for computation of CLVH01 is given in the table below.

CLVH01	GENDER	NLVHSC01
1	Male	Greater than 28
	Female	Greater than 22
0	Male	Less than or Equal to 28
	Female	Less than or Equal to 22

13. Family History of Stroke, CHD or Diabetes

13.1 MOMHXCHD (Discontinued)

13.2 DADHXCHD (Discontinued)

13.3 FAMHXCHD (Discontinued)

13.4 MOMHXDIA (Discontinued)

13.5 DADHXDIA (Discontinued)

13.6 FAMHXDIA (Discontinued)

13.7 MOMHXSTR (Discontinued)

13.8 DADHXSTR (Discontinued)

13.9 FAMHXSTR (Discontinued)

13.10 MOMHISTORYSTR: New Maternal History of Stroke UC4755

We needed to replace MOMHXSTR with MOMHISTORYSTR which did not include missing values.

MOMHISTORYSTR		New Maternal History Of Stroke
N	*Value*	*Description*
12355	0	No
2615	1	Yes
822		Missing

If HOM12= 'Y' (mother is alive) then:

MOMHISTORYSTR=1 if HOM18d= 'Y' (mother had stroke)

MOMHISTORYSTR=0 if HOM18d='N' (mother did not have a stroke)

MOMHISTORYSTR=Missing if HOM18d='U' or Missing

If HOM12='N' (mother is not alive) then:

MOMHISTORYSTR=1 if HOM15d='Y' (deceased mother had stroke)

or if HOM14='S' and HOM15d^= 'N'(deceased mother died from a stroke)

MOMHISTORYSTR=0 if HOM15d='N' (deceased mother did not have stroke)

and HOM14^='S' (deceased mother didn't die from a stroke)

MOMHISTORYSTR=Missing if (HOM15d= 'U' or Missing) and HOM14^= 'S'

(unknown if deceased mother had stroke)

or if HOM15d^='Y' and (hom14='U' or Missing) (unknown if deceased mother had stroke)

or if HOM14='S' and HOM15d='N' (Inconsistent)

If Hom12='U' or Missing (unknown if mother is alive)

MOMHISTORYSTR=Missing

[**note: see list of orginal variables at end of DADHISTORYDIA]

13.11 DADHISTORYSTR (Paternal History of Stroke) UC4755

DADHISTORYSTR		New Paternal History Of Stroke	
N		Value	Description
11845		0	No
2386		1	Yes
1561			Missing

If HOM20= 'Y' (father is alive) then:

DADHISTORYSTR=1 if HOM26d= 'Y' (father had stroke)

DADHISTORYSTR=0 if HOM26d='N' (father did not have a stroke)

DADHISTORYSTR=Missing if HOM26d='U' or Missing (unknown if father had stroke)

If HOM20='N' (father is not alive) then:

DADHISTORYSTR=1 if HOM23d='Y' (deceased father had stroke)

or if (HOM22='S' and HOM23d^= 'N') (deceased father died from a stroke)

DADHISTORYSTR=0 if HOM23d='N' (deceased father did not have stroke)

and HOM22^='S' (deceased father didn't die from a stroke)

DADHISTORYSTR=Missing

if (HOM23d= U or Missing) and HOM22^='S

(unknown if deceased father had stroke)

or if HOM23d^='Y' and (HOM22='U' or Missing)

(unknown if deceased father had stroke)

Or if (HOM22='S' and HOM23d='N')

(Inconsistent)

If HOM20='U' or Missing (unknown if father is alive)

DADHISTORYSTR=Missing

[**note: see list of orginal variables at end of DADHISTORYDIA]

13.12 MOMHISTORYCHD (Maternal History of CHD) UC4755

MOMHISTORYCHD		New Maternal History Of CHD
N	Value	Description
12251	0	No
2621	1	Yes
920		Missing

If HOM12= 'Y' (mother is alive) then:

MOMHISTORYCHD=1

If HOM18e= 'Y' (mother had heart attack)

MOMHISTORYCHD=0

if HOM18e='N' (mother did not have a heart attack)

MOMHISTORYCHD=Missing

if HOM18e='U' or Missing (unknown if mother had heart attack)

If HOM12='N' then: (mother is not alive)

MOMHISTORYCHD=1

if HOM15e='Y' or (HOM14='A' and HOM15e^= 'N') (mother had heart attach or mother died of a heart attack)

MOMHISTORYCHD=0

if (HOM15e='N' and HOM14^='A')

(mother did not have a heart attach nor did she die of a heart attack)

MOMHISTORYCHD=Missing

if (HOM15e= 'U' or Missing) and HOM14^='A")

(unknown if mother had a heart attack)

or HOM15e^='Y' and (HOM14='U' or Missing)

(unknown if mother had a heart attack)

or HOM15e='N' and HOM14='A'

(Inconsistent)

If Hom12='U' or Missing (unknown if mother is alive)

MOMHISTORYCHD=Missing

[**note: see list of orginal variables at end of DADHISTORYDIA]

13.13 DADHISTORYCHD (Paternal History of CHD) UC4755

DADHISTORYCHD		New Paternal History Of CHD
N	Value	Description
9556	0	No
4539	1	Yes
1697		Missing

If HOM20= 'Y' (father is alive) then:

DADHISTORYCHD=1 if HOM26e= 'Y' (father did have a heart attack) DADHISTORYCHD=0 if HOM26e='N' (father did have a heart attack)

DADHISTORYCHD=Missing if HOM26e='U' or Missing (unknown if father had heart attack)

If HOM20='N' then (father had died):

DADHISTORYCHD=1 if HOM23e='Y' (deceased father had heart attack)

or if (HOM22='A' and HOM23e^= 'N' (father had died of a heart attack)

DADHISTORYCHD=0 if HOM23e='N' and HOM22^='A'

(deceased father did not have a heart attack nor did he die of one)

DADHISTORYCHD=Missing

if (HOM23e= U or Missing) and HOM22^='A"

(unknown if deceased father had a heart attack)

or if HOM23e^='Y' and (HOM22='U' or Missing)

(unknown if deceased father had heart attack)

or if (HOM23e='N' and HOM22='A')

(inconsistent)

If HOM20='U' or Missing (unknown if father is alive) then:

DADHISTORYCHD=Missing

[**note: see list of orginal variables at end of DADHISTORYDIA]

13.14 MOMHISTORYDIA (Maternal History of Diabetes) UC4755

MOMHISTORYDIA		New Maternal History Of Diabetes
N	Value	Description
12408	0	No
2691	1	Yes
693		Missing

If HOM12='Y' (Mother still alive) then :

MOMHISTORYDIA=1 if HOM18b='Y' (mother did have diabetes)

MOMHISTORYDIA=0 if HOM18b='N' (mother did not have diabetes)

MOMHISTORYDIA=Missing if HOM18b='U' or Missing (unknown if mother had diabetes)

If HOM12='N' (mother is not alive) then:

MOMHISTORYDIA=1   if HOM15b='Y' (mother did have diabetes)

MOMHISTORYDIA=0   if HOM15b='N' (mother did not have diabetes)

MOMHISTORYDIA=Missing if HOM15b='U' or Missing (unknown if mother had diabetes)

If HOM12='U' or Missing (unknown if mother is alive) then:

MOMHISTORYDIA=Missing

[**note: see list of orginal variables at end of DADHISTORYDIA]

13.15 DADHISTORYDIA (Paternal History of Diabetes) UC4755

DADHISTORYDIA		New Paternal History Of Diabetes
N	Value	Description
12839	0	No
1488	1	Yes
1465		Missing

If HOM20='Y' (father is still alive) then:

DADHISTORYDIA=1 if HOM26e='Y' (father does have diabetes)

DADHISTORYDIA=0If HOM26e='N' (father does not have diabetes)

DADHISTORYDIA=Missing if (HOM26e='U' or Missing)

(unknown if father had diabetes)

If HOM20='N' (father had died) then:

DADHISTORYDIA=1 if HOM23e='Y' (father did have diabetes)

then DADHISTORYDIA=0 if HOM23e='N' (father did not have diabetes)

then DADHISTORYDIA=Missing if HOM23e='U' or Missing

(unknown if father had diabetes)

If HOM20='U' or Missing (unknown if father is still alive)

Then DADHISTORYDIA=Missing

List of Variables Used for MOMHISTORY & DADHISTORY:

Hom12: Is you mother currently alive? (if 'N' skip to Hom18)

Hom14: What was the cause of your natural mother's death? 'A'-heart attack ;'S'-stroke; 'U' unknown'

Hom15: Did your natural (deceased) mother ever have any of the following diseases?

b.   Diabetes
d.   Stroke
e.   Heart attack

Hom18: Did your natural (alive) mother ever have any of the following diseases?

b.   Diabetes
d.   Stroke
e.   Heart attack

(note Hom15 is for natural mothers who are deceased, Hom18 is for natural mothers who are alive)
Hom20: Is your natural father living?
Hom22: What was the cause of your natural father's death? 'A'-heart attack ;'S'-stroke; 'U' unknown'
HOM23: Did your natural (deceased) father have any of the following diseases?

b. Diabetes
d.   Stroke
e.   Heart attack

HOM26: Did your natural (alive) father have any of the following diseases?

b.   Diabetes
d.   Stroke
e.   Heart attack

13.16 MOMPRECHD (Maternal Premature History of CHD) UC4702

MOMPRECHD will take a value of 'Y' for "Yes, participant's mother had premature CHD" if the participant's mother had a history of CHD (MOMHISTORYCHD= 'Y') and if she was told her first CHD incident occurred before she was 60 years of age.

MOMPRECHD			Maternal Premature History Of CHD
N		Value	Description
14134		N	
526		Y	
1132			Missing

Premature Matural History (MOMPRECHD) with Maturnal History of CHD (MOMHISTORYCHD)			
MOMPRECHD	MOMHISTORYCHD	Frequency	Percent
Missing	Missing	917	5.81
Missing	Y	212	1.34
N	N	12251	77.59
N	Y	1883	11.93
Y	Y	526	3.33

Mother had Premature CHD:

MOMPRECHD= 'Y' if MOMHISTORYCHD= 'Y' and MOMAGE<60

MOMPRECHD= 'N' if MOMHISTORYCHD= 'N' or (if MOMHISTORYCHD= 'Y' and MOMAGE>=60)

MOMPRECHD= 'M' if MOMHISTORYCHD= Miss or (if MOMHISTORYCHD= 'Y' and MOMAGE= Miss)

Mother's Age:

{MOMAGE=19e   if HOM12='Y' [mom is alive]

      or
MOMAGE=HOM16e   if HOM12='N' [mom is dead]}

MOMAGE=Missing   if HOM12=missing
                        or   (if HOM12='Y' and HOM19e=missing)
         or (if HOM12='N' and HOM16e= missing)

List of Variables used for DADPRECHD	
MOMHISTORYCHD	New definition of maternal history of CHD
HOM12	Natural mother living?
HOM19e	Age of natural mother when she was told she had a heart attack? [if mother is still alive]
HOM16e	Age of natural mother when she was told she had a heart attack? [if mother is not still alive]

13.17 DADPRECHD (Paternal Premature History of CHD (Age<55) UC4702

DADPRECHD will take a value of 'Y' for "Yes, participant's father had premature CHD" if the participant's father had a history of CHD (DADHISTORYCHD= 'Y') and if he was told his first CHD incident occurred before he was 55 years of age.

DADPRECHD		Premature Paternal History Of CHD: Age<55
N	Value	Description
12905	N	No
858	Y	Yes
2029		Missing

Premature Patural History (DADPRECHD) with Paturnal History of CHD (DADHISTORYCHD)			
DADPRECHD	DADHISTORYCHD	Frequency	Percent
Missing	Missing	1694	10.73
Missing	Y	332	2.10
N	N	9556	60.52
N	Y	3349	21.21
Y	Y	858	5.43

Father had Premature CHD:

DADPRECHD= 'Y' if DADHISTORYCHD= 'Y' and DADAGE<55

DADPRECHD= 'N' if DADHISTORYCHD= 'N' or (if DADHISTORYCHD= 'Y' and DADAGE>=55)

DADPRECHD= 'M' if DADHISTORYCHD= Miss or (if DADHISTORYCHD= 'Y' and DADAGE= Miss)

Father's Age:

{DADAGE=HOM27e if HOM20='Y' [dad is alive]

or

DADAGE=HOM24e   if HOM20='N' [dad is dead]}

DADAGE=Missing   if HOM20=missing
                      or (if HOM20='Y' and HOM27e=missing)
                      or (if HOM20='N' and HOM24e= missing)

List of Variables used for DADPRECHD	
DADHISTORYCHD	New definition of paternal history of CHD
HOM20	Natural father living?
HOM24e	Age of natural father when he was told he had a heart attack?
HOM27e	Age of natural father when he was told he had a heart attack?

14.1 CHDRISK10yr_01 (10 year CHD Risk Score at Visit 1) UC4677

CHDRISK10yr_01 is the predicted 10 year risk of incident coronary heart disease (CHD). It is a percentage variable thus can take values from 0 to 100 or missing. The beta-coefficients used for the prediction are given below. The beta coefficients were obtained from an output found in uc467701 and were published in ARIC manuscript 661(for those without diabetes)[1] and ARIC manuscript 781 (for those with diabetes)[2]. If a participant had prevalent CHD or had a missing value for at least one of the variables used, then predicted risk was not calculated and a missing value was assigned.

Participants were separated based on gender, race, and diabetes status. The predicted 10 year risk of incident CHD was then calculated using the following Cox regression equation:

$$CHDRISK10yr\_01 = 100 * \left[1 - \left(1 - P_0 \right)^{(\exp(RS - RS_0))} \right]$$

Where P_0 is a constant

RS_0 is a constant

RS is a linear combination of B-coefficients times the risk factor variables (see table below).

CHDRISK10yr_01 = Missing

if any risk factor variable is missing   or if PREVCHD05 ^=0

Risk Factor Variables	Beta Coefficients			
	Black Females	White Females	Black Males	White Males
newage	0.31989	0.39378	0.63186	0.36528
newage_2	-0.090856	-0.22346	-0.15692	-0.27146
tccat2	0.1173	0.64727	0.33314	0.44555
tccat3	0.1173*	0.80937	0.37726	0.77279
tccat4	0.81459	0.9329	0.69569	0.77279
hdlcat1	1.07081	1.20919	0.79192	1.27295
hdlcat2	0.39727	0.91366	0.43293	0.9178
hdlcat3	0.3927	0.91366	0.43293	0.65401
hdlcat4	0.23253	0.56967	0.28026	0.61373
sbpa21	0.024899	0.015023	0.002253654	0.013634
hyptmdcode01	0.8091	0.58733	0.6937	0.12
cursmk01	1.01048	1.10297	0.63094	0.37602
$1-P_0$	0.99126	0.99391	0.97262	0.97262
RS_0	2.93014	1.74618	0.20343	0.20343

Table1: CHD Risk for those without Diabetes: 10 year CHD Risk Score Beta coefficents, RS_0, and $1-P_0$ values for participants without diabetes

In this and other cases the repeating of a coefficient from the row above is not an error. The adjacent categories were collapsed for the particular population, for sample size reasons.

[1] Chambless LE, Folsom AR, Sharrett AR, Sorlie P, Couper D, Szklo M, Neito FJ. Coronary heart disease risk prediction in the ARIC Study. J Clin Epidemiol 2003;56:880-90.

[2] Folsom AR, Chambless LE, Duncan BB, Gilbert AC, Pankow JS. Prediction of coronary heart disease in middle-aged adults with diabetes. Diabetes Care 2003;10:2777-84.

Table 2: CHD Risk for those with Diabetes: 10-year CHD risk score beta coefficents, RS0, and 1-P0 values for participants with diabetes		
Risk Factor Variables	Beta Coefficients	
	Females	Males
racegrp	0.51819	0.49764
newage	0.11855	0.41088
newage_2	0.008189254	-0.26545
tccat23	0.66224	0.49266
tccat4	1.0978	1.04681
hdlcat12	0.38941	0.67931
hdlcat3	0.33487	-0.14568
sbpa21	0.15579	0.004552397
hyptmdcode01	0.38741	-0.019692
cursmk01	0.091353	0.18137
$1-P_0$	0.97643	0.9291
RS_0	1.84209	0.49799

Continuous Variables used:

NEWAGE= (V1AGE01-55)/10

NEWAGE_2= $(NEWAGE)^2$

Categorical Variables used:

Total Cholesterol (all measured in mg/dl)

TCCAT1= 1 if LIPA01<200

TCCAT2= 1 if 200 <= LIPA01 < 240

TCCAT3= 1 if 240 <= LIPA01< 280

TCCAT4=1 if LIPA01>=280

TCAT23= 1 if 200<=LIPA01<280 (combine tccat2 & tccat3)

High Density Lipids (all measured in mg/dl)

HDLCAT1=1 if HDL01< 35

HDLCAT2=1 if 35<=HDL01<45

HDLCAT3=1 if 45<=HDL01<50

HDLCAT4=1 if 50<=HDL01<60

HDLCAT5=1 if HDL01>=60

HDLCAT12=1 if HDL01<45 (combine hdlcat1 & hdlcat2)

General Term	Description
PRVCHD05	Prevalent Coronary Heart Disease
RACE	Race
GENDER	Gender
CURSMK01	Current Smoker
DIABTS03	Diabetic
AGE	Age a Visit 'n'
HDL01	HDL-High Density Lipids (mg/dL)
HYPTMDCODE01	Took Medication for hypertension w/in 2wks using 2004 medication coding
SBPA21	SBP (2nd & 3rd Average) (mmHg)
LIPA01	Total Cholesterol (mg-dL)

14.2 STROKE10YR_01: 10 year Stroke Risk Score at Visit 1 (UC4678)

STROKERISK10YR_01 is the predicted 10 year risk of incident Ischemic Stroke. It is a percentage variable thus can take values from 0 to 100 or missing. The beta-coefficients used for the prediction are given below. The beta coefficients were obtained from an output found in UC4077_3b[1] and were published in ARIC manuscript #824[2]. If a participant had prevalent stroke or had a missing value for at least one of the variables used, then the predicted risk was not calculated and a missing value was assigned.

Participants were separated based on gender. The 10 year predicted risk of incident Ischemic Stroke was then calculated using the following Cox regression equation:

$$\text{STROKERISK 10YR\_01} = 100 * \left[1 - \left(1 - P \right)^{\left(\exp(RS - RS_0) \right)} \right]_0$$

Where P_0 is a constant
RS_0 is a constant
RS is a linear combination of B-coefficients times the risk factor variables (see table below).

STROKERISK10YR_01= Missing
if any risk factor variables are missing
or
if HOM10d=0

Table2: Calculating Risk: Categorical and continuous variables w/ Beta -coefficients used to calculate 10-year stroke risk.		
	Female	Male
racegrp	0.4155701	0.3514973
cursmk01	0.8002466	0.6931732
v1age01	0.0689097	0.0807621
prvchd05	0.6298822	0.7332341
hyptmdcode01	0.4072694	0.4544168
clvh01	0.808223	0.386121
diabts03	1.1371047	0.8892109
spa21	0.0174648	0.0184501
RS_0	5.79944	6.55671
$1-P_0$	0.99390574	0.989928

Variables from Visit 1	Description
v1date01	Date of Visit 1
gender	Gender
racegrp	Race
cursmk01	Current Smoker
v1age01	Age at Visit 1
prvchd05	Prevalent CHD
hyptmdcode01	Took Medication for hypertension w/in 2wks using 2004 medication coding
clvh01	Left Ventricle hypertrophy
diabts03	Diabetes
sbpa21	Systolic BP (Ave)
hom10d	Prevelant Stroke

[1] J:\aric\sc\source\archive\zip\uc4077.zip

[2] Chambless LE, Heiss G, Shahar E, Earp MJ, Toole J. Ischemic stroke risk prediction in the Atherosclerosis Risk in Communities study. Am J Epidemiol 2004;160:259-269.

14.3 DIABETESRISK9YR_01: 9 year Diabetes Risk Score at Visit 1 (UC4679)

DIABETESRISK9YR_01 is the predicted 9 year risk of incident type two diabetes. It is a percentage variable thus can take values from 0 to 100 or missing. The beta-coefficients used for the prediction are given below. The beta coefficients were obtained from an output found in uc439216[1] and were published in ARIC manuscript 808b[2] If a participant had prevalent diabetes or had a missing value for at least one of the variables used, then the predicted risk was not calculated and a missing value was assigned.

$$DIABETES\,9\,yr\_01 = \frac{1}{1 + e^{-RS}}$$

DIABETES9yr_01= Missing
If DIABTS03^=0
Or if any risk factor variables are missing

RS is a linear combination of B-coefficients times the risk factor variables.
RS= -9.98078+ 0.017254*(V1AGE01) + 0.44330*(BLACK)+ 0.49810*(FAMDIABETES) + 0.0880*(
GLUCOS01 $_{[mg/dl]}$)+ 0.011097 *(SBPA21$_{[mmHg]}$)-0.032616*(ANTA01$_{[cm]}$)
+0.027316*(ANTA07a$_{[cm]}$) - 0.012227*(HDL01 $_{[mg/dL]}$) + 0.002710939*(LIPA02$_{[mg/dL]}$)
BLACK= 1 if RACEGRP="B" BLACK=0 if RACEGRP="W"
BLACK=missing otherwise.

FAMDIABETES- if either participants mother or father had diabetes then FAMDIABETES=1 Neither mother
nor father had diabetes then FAMDIABETES=0
FAMDIABETES=1 if HOM15B='Y' or HOM18B='Y' or HOM23B='Y' or HOM26B='Y' FAMDIABETES =0 if
(HOM15B='N' or HOM18B='N') and if (HOM23B='N' or HOM26B='N')
FAMDIABETES = . Otherwise

Generic Term	Description
V1AGE01	Age at Visit X
RACEGRP	Race
HDL01	High density lipids (mg/dl)
GLUCOS01	Fasting Glucose Value (mg/dl) [recalibrated]
DIABTS03	Prevalent Diabetes?
SBPA21	SBP- Systolic BP 2nd & 3rd average (mmHg)
LIPA02	Triglycerides (mg/dl)
ANTA01	Height (cm)
A	Waist size (cm)
HOM15B	Natural Mother ever have Diabetes?
HOM18B	Natural Mother ever have Diabetes?
HOM23B	Natural Father ever have Diabetes
HOM26B	Natural Father ever have Diabetes

[1] j:\aric\sc\source\archive\zip\uc4392.zip
[2] Schmidt MI, Duncan BB, Bang H, Pankow J, Ballantyne CM, Golden S, Folsom AR,
Chambless LE. Identifying individuals at high risk for diabetes: The Atherosclerosis Risk
in Communities Study Diabetes Care 2005;28:2013-18.

15. MEDICATION CLASSIFICATION

15.1 MEDI-SPAN'S THERAPEUTIC CLASSIFICATION SYSTEM

The classification listings are current as of the time of this printing. Medi-Span may make revisions to the TCS to increase usefulness which may impact existing GPI values. This listing may be reproduced by printing the Record Types 1 through 3 from the optional Therapeutic Classification Reference File. (Refer to Section 5 for more information.) Variable names for the MTC codes are MSRMTC1-MSRMTC17, and MSRAHF1-MSRAHF17 for AHFSCC codes (in file MSRCOD05 for Visit 1)

Value $MTCNAME "000000" = "PLACEBO"

GROUPS 1-16 ANTI-INFECTIVE AGENTS

```
"010000"="PENICILLINS"
"011000"="PENICILLIN G"
"012000"="AMPICILLINS"
"013000"="PENICILLINASE-RESISTANT"
"014000"="EXTENDED SPECTRUM"
"015000"="AMIDINOPENICILLIN"
"019900"="PENICILLIN COMBINATIONS"
"020000"="CEPHALOSPORINS"
"021000"="CEPHALOSPORINS - 1ST GENERATION"
"022000"="CEPHALOSPORINS - 2ND GENERATION"
"023000"="CEPHALOSPORINS - 3RD GENERATION"
"030000"="MACROLIDE ANTIBIOTICS"
"031000"="ERYTHROMYCINS"
"031099"="ERYTHROMYCIN COMBINATIONS"
"032000"="TROLEANDOMYCIN"
"033000"="LINCOMYCINS"
"034000"="AZITHROMYCIN"
"035000"="CLARITHROMYCIN"
"035500"="MIOCAMYCIN"
"035700"="ROXITHROMYCIN"
"036000"="SPIRAMYCIN"
"040000"="TETRACYCLINES"
"049900"="TETRACYCLINE COMBINATIONS"
"050000"="FLUROQUINOLONES"
"060000"="R E S E R V E D"
"070000"="AMINOGLYCOSIDES"
"080000"="SULFONAMIDES"
"089900"="SULFA COMBINATIONS"
"090000"="ANTIMYCOBACTERIAL AGENTS"
"099900"="ANTI TB COMBINATIONS"
"100000"="R E S E R V E D"
"110000"="ANTIFUNGALS"
"120000"="ANTIVIRAL"
"129900"="ANTIVIRAL COMBINATIONS"
"130000"="ANTIMALARIAL"
"139900"="ANTI MALARIAL COMBINATIONS"
"140000"="AMEBICIDES"
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"149900"="AMEBICIDE COMBINATIONS"
"150000"="ANTHELMINTIC"
"159900"="ANTHELMINTIC COMBINATIONS"
"160000"="MISC. ANTI-INFECTIVES"
"161000"="POLYMYXINS"
"162000"="CHLORAMPHENICOLS"
"163000"="LEPROSTATICS"
"164000"="ANTIPROTOZOAL AGENTS"
"165000"="ANTIINFECTIVE ADJUVANTS"
"169900"="MISC. ANTIINFECTIVE COMBINATIONS"

GROUPS 17-20 BIOLOGICALS

"170000"="VACCINES"
"171000"="VIRAL VACCINES"
"171099"="VACCINE COMBINATIONS"
"172000"="BACTERIAL VACCINES"
"180000"="TOXOIDS"
"189900"="TOXOID COMBINATIONS"
"190000"="ANTISERA"
"191000"="IMMUNE SERUMS"
"192000"="ANTITOXINS-ANTIVENINS"
"199900"="ANTISERA COMBINATIONS"
"200000"="BIOLOGICALS MISC"
"201000"="ALLERGENIC EXTRACTS"

GROUPS 21 - ANTINEOPLASTIC AGENTS

"210000"="ANTINEOPLASTICS"
"211000"="ALKYLATING AGENTS"
"211010"="NITROGEN MUSTARDS"
"211020"="NITROSOUREAS"
"212000"="ANTINEOPLASTIC ANTIBIOTICS"
"213000"="ANTIMETABOLITES"
"214000"="ANTINEOPLASTIC HORMONES"
"214020"="ANDROGENS-ANTINEOPLASTIC"
"214030"="ESTROGENS-ANTINEOPLASTIC "
"214040"="PROGESTINS-ANTINEOPLASTIC"
"214050"="ANTINEOPLASTIC HORMONES MISC."
"215000"="MIOTIC INHIBITORS"
"216000"="RADIOPHARMACEUTICALS"
"217000"="ANTINEOPLASTICS MISC."
"217030"="ANTINEOPLASTICS - INTERLUEKINS"
"218000"="INVESTIGATIONAL-ANTINEOPLASTIC"
"219900"="ANTINEOPLASTIC COMBINATIONS"

GROUPS 22-30 ENDOCRINE AND METABOLIC DRUGS

"220000"="CORTICOSTEROIDS"
"221000"="GLUCOCORTICOSTEROIDS"
"221099"="STEROID COMBINATIONS"
"222000"="MINERALOCORTICOIDS "
"230000"="ANDROGEN-ANABOLIC"
"231000"="ANDROGENS"
"231099"="ANDROGEN COMBINATIONS"
"232000"="ANABOLIC STEROIDS"

"240000"="ESTROGENS"
"249900"="ESTROGEN COMBINATIONS"
"249910"="ESTROGEN-ANDROGEN"
"249920"="ESTROGEN-ANTIANXIETY AGENT"
"249930"="ESTROGEN-PROGESTIN"
"249940"="ESTROGEN-ANDROGEN-PROGESTIN"
"250000"="CONTRACEPTIVES"
"251000"="PROGESTIN OC'S"
"251500"="PROGESTIN CONTRACEPTIVES - INJECTABLE"
"252000"="PROGESTERONE IUD"
"253000"="PROGESTIN IMPLANTS"
"259800"="COMBINATION CONTRACEPTIVES - INJECTABLE"
"259900"="COMBINATIONS OC'S"
"259910"="BIPHASIC OC'S"
"259920"="TRIPHASIC OC'S"
"260000"="PROGESTINS"
"270000"="ANTIDIABETIC"
"271000"="INSULIN"
"271010"="MIXED INSULIN"
"271020"="BEEF INSULIN"
"271030"="PORK INSULIN"
"271040"="HUMAN INSULIN"
"272000"="SULFONYLUREAS"
"272099"="SULFOYLUREA COMBINATIONS"
"273000"="DIABETIC OTHER"
"274000"="ALDOSE REDUCTASE INHIBITORS"
"280000"="THYROID"
"281000"="THYROID HORMONES"
"283000"="ANTITHYROID AGENTS"
"290000"="OXYTOCICS"
"292000"="ABORTIFACIENTS"
"292010"="PROSTAGLANDINS"
"300000"="MISC. ENDOCRINE"
"301000"="GROWTH HORMONE"
"302000"="POSTERIOR PITUITARY"
"302010"="VASOPRESSIN"
"303000"="CORTICOTROPIN"
"309900"="MISC. ENDOCRINE COMBINATIONS"

GROUPS 31-40 CARDIOVASCULAR AGENTS

"310000"="CARDIOTONICS"
"311000"="AMRINONE"
"312000"="DIGITALIS"
"320000"="ANTIANGINAL AGENTS"
"321000"="NITRATES"
"322000"="ANTIANGINALS - OTHER"
"329900"="ANTIANGINAL COMBINATIONS"
"329910"="PETN COMBINATIONS"
"330000"="BETA BLOCKERS"
"331000"="BETA BLOCKERS NON-SELECTIVE"
"332000"="BETA BLOCKERS CARDIO-SELECTIVE"
"333000"="ALPHA-BETA BLOCKERS"
"340000"="CALCIUM BLOCKERS"
"350000"="ANTIARRHYTHMIC"
"350500"="ANTIARRHYTHMICS TYPE I -- NONSPECIFIC"

"351000"="ANTIARRHYTHMICS TYPE 1-A"
"352000"="ANTIARRHYTHMICS TYPE 1-B"
"353000"="ANTIARRHYTHMICS TYPE 1-C"
"354000"="ANTIARRHYTHMICS TPYE III"
"355000"="MISC. ANTIARRHYTHMIC"
"360000"="ANTIHYPERTENSIVE"
"361000"="ACE INHIBITORS"
"362000"="ADRENOLYTIC ANTIHYPERTENSIVES"
"362010"="ADRENOLYTICS - CENTRAL"
"362020"="ADRENOLYTICS - PERIPHERAL"
"362030"="RESERPINE"
"363000"="ALPHA BLOCKERS"
"364000"="VASODILATORS "
"364010"="FLUOROQUINOLONE VASODIALATORS"
"365000"="ANTIHYPERTENSIVE - MAOIS"
"366000"="MISC. ANTIHYPERTENSIVES"
"369900"="ANTIHYPERTENSIVE COMBINATIONS"
"369910"="RESERPINE COMBINATIONS"
"369920"="BETA BLOCKER COMBINATIONS"
"370000"="DIURETICS"
"371000"="CARBONIC ANHYDRASE INHIBITORS"
"372000"="LOOP DIURETICS"
"373000"="MERCURIAL DIURETICS"
"374000"="OSMOTIC DIURETICS"
"375000"="POTASSIUM SPARING DIURETICS"
"376000"="THIAZIDES"
"379000"="MISC. DIURETICS"
"379900"="COMBINATION DIURETICS"
"379910"="DIURETICS & POTASSIUM"
"379920"="NON-PRESCRIPTION DIURETICS"
"380000"="PRESSORS"
"389000"="EMERGENCY KITS"
"390000"="ANTIHYPERLIPIDEMIC"
"391000"="BILE SEQUESTRANTS"
"400000"="MISC. CARDIOVASCULAR"
"401000"="PERIPHERAL VASODILATORS"
"401099"="VASODILATOR COMBINATIONS"
"401500"="MICROVASODILATORS"
"402000"="CARDIOPLEGIC SOLN"
"402500"="VASOCONSTRICTOR INHIBITORS"

GROUPS 41-45 RESPIRATORY AGENTS

"410000"="ANTIHISTAMINES"
"411000"="ANTIHISTAMINES - ALKYLAMINES"
"412000"="ANTIHISTAMINES - ETHANOLAMINES"
"413000"="ANTIHISTAMINES - ETHYLENEDIAMINES"
"414000"="ANTIHISTAMINES - PHENOTHIAZINES"
"415000"="ANTIHISTAMINES - PIPERIDINES"
"415500"="ANTIHISTAMINES - NON-SEDATING"
"416000"="ANTIHISTAMINES - MISC."
"419900"="ANTIHISTAMINE COMBINATIONS"
"419910"="ANTIHISTAMINE MIXTURES"
"419920"="ANTIHISTAMINE - ANTICHOLINERGICS"
"420000"="DECONGESTANTS"
"421000"="SYMPATHOMIMETICS"

"421010"="SYSTEMIC DECONGESTANTS"
"421020"="TOPICAL DECONGESTANTS"
"421030"="NASAL INHALERS"
"422000"="NASAL STEROIDS"
"425000"="MISC. NASAL PREPARATIONS"
"425099"="MISC. NASAL COMBINATION PREPARATIONS"
"429900"="NASAL COMBINATIONS"
"429910"="DECONGESTANT-ANTIHISTAMINE"
"430000"="COUGH/COLD"
"431000"="ANTITUSSIVES"
"431010"="ANTITUSSIVE - NARCOTIC"
"431020"="ANTITUSSIVE - NONNARCOTIC"
"432000"="EXPECTORANTS"
"432020"="IODINE EXPECTORANTS"
"432099"="EXPECTORANT MIXTURES"
"433000"="MUCOLYTICS"
"434000"="MISC. RESPIRATORY INHALENTS"
"434010"="AROMATIC INHALANTS"
"439900"="COUGH/COLD COMBINATIONS"
"439910"="DECONGESTANT-ANALGESIC"
"439915"="DECONGESTANT-ANALGESIC-ANTICHOLINERGIC"
"439920"="ANTIHISTAMINE-ANALGESIC"
"439925"="ANTIHISTAMINE-ANALGESIC-ANTICHOLINERGIC"
"439930"="DECONGESTANT & ANTIHISTAMINE"
"439935"="DECONGEST-ANTIHISTAMINE-ANTICHOLINERGIC"
"439940"="DECONGESTANT-ANTIHISTAMINE-ANALGESIC"
"439945"="DECONGEST-ANTIHIST-ANALGESIC-ANTICHOLIN"
"439950"="ANTITUSSIVE COMBOS-NARCOTIC"
"439951"="NARCOTIC ANTITUSSIVE-DECONGESTANT"
"439952"="NARCOTIC ANTITUSSIVE-ANTIHISTAMINE"
"439953"="NARCOTIC ANTITUSSIVE-DECONGEST-ANTIHIST"
"439954"="NARC ANTITUSS-DECONGEST-ANTIHISTA-ANALG"
"439955"="ANTITUSSIVE COMBOS-NON-NARCOTIC"
"439956"="NON-NARC ANTITUSSIVE-DECONGESTANT"
"439957"="NON-NARC ANTITUSSIVE-ANTIHISTAMINE"
"439958"="NON-NARC ANTITUSS-DECONGEST-ANTIHIST"
"439959"="NON-NARC ANTITUSS-DECONG-ANTIHISTA-ANALG"
"439960"="EXPECTORANT COMBINATIONS"
"439962"="DECONGESTANT W/EXPECTORANT"
"439964"="ANTIHISTAMINE W/EXPECTORANT"
"439966"="DECONGESTANT-ANTIHISTAMINE W/EXPECTORANT"
"439968"="DECONGEST-ANTIHIST-ANALGESIC E/EXPECT"
"439970"="ANTITUSSIVE-EXPECTORANT"
"439973"="ANTITUSSIVE-EXPECTORANT-DECONGESTANT"
"439975"="ANTITUSSIVE-EXPECTORANT-ANTIHISTAMINE"
"439978"="ANTITUSSIVE-EXPECTORANT-ANALGESIC"
"439980"="ANTITUSSIVE-EXPECTOR-DECONGEST-ANTIHIST"
"439983"="ANTITUSSIVE-EXPECTOR-DECONGEST-ANALGESIC"
"439985"="ANTITUSSIVE-EXPECTOR-ANTIHISTA-ANALGESIC"
"439988"="ANTITUSS-EXPECTOR-DECONG-ANTIHISTA-ANALG"
"439990"="MISC. RESPIRATORY COMBINATIONS"
"440000"="ANTIASTHMATICS"
"441000"="ANTICHOLINERGICS"
"441500"="ANTI-INFLAMMATORY AGENTS"
"442000"="SYMPATHOMIMETICS"
"442010"="BETA ADRENERGICS"

"442020"="MIXED ADRENERGICS"
"442099"="ADRENERGIC COMBINATIONS"
"443000"="XANTHINES"
"444000"="STEROID INHALANTS"
"449900"="ASTHMA COMBINATIONS"
"449910"="XANTHINE-EXPECTORANTS"
"449920"="XANTHINE-SYMPATHOMIMETICS"
"449922"="XANTHINE-SYMPATHOMIMETIC-EXPECTORANT"
"449925"="XANTHINE-BARBITURATES"
"449927"="SYMPATHOMIMETIC-BARBITURATE"
"449930"="XANTHINE-SYMPATHOMIMETIC-BARBITURATE"
"449932"="XANTHINE-SYMPATHO-BARBIT-EXPECTOR"
"449940"="SYMPATHOMIMETIC-EXPECTORANTS"
"449950"="XANTHINE-ANTITUSSIVE"
"449990"="MISC. ANTIASTHMATIC PRODUCTS"
"450000"="MISC. RESPIRATORY"
"451000"="ALPHA-PROTEINASE INHIBITOR (HUMAN)"

GROUPS 46-52 GASTROINTESTINAL AGENTS

"460000"="LAXATIVES"
"461000"="SALINE LAXATIVES"
"461099"="SALINE LAXATIVE MIXTURES"
"462000"="STIMULANT LAXATIVES"
"463000"="BULK LAXATIVES"
"464000"="LUBRICANT LAXATIVES"
"465000"="SURFACTANT LAXATIVES"
"466000"="MISC. LAXATIVES"
"469900"="LAXATIVE COMBINATIONS"
"469910"="LAXATIVES & DSS"
"469920"="BOWEL PREP KITS"
"470000"="ANTIDIARRHEALS"
"471000"="ANTIPERISTALTIC AGENTS"
"472000"="GI ADSORBANTS"
"473000"="MISC. ANTIDIARRHEAL AGENTS"
"479900"="ANTIDIARRHEAL COMBINATIONS"
"479910"="DIARRHEA COMBINATIONS-OPIATE"
"479920"="DIARRHEA COMBINATIONS-ANTICHOLINERGIC"
"480000"="ANTACIDS"
"481000"="ANTACIDS - ALUMINUM SALTS"
"482000"="ANTACIDS - BICARBONATE"
"482099"="ANTACIDS - BICARBONATE COMBINATIONS"
"483000"="ANTACIDS - CALCIUM SALTS"
"484000"="ANTACIDS - MAGNESIUM SALTS"
"489900"="ANTACID COMBINATIONS"
"489905"="ANTACID & DIMETHICONE"
"489910"="ANTACID-SIMETHICONE"
"490000"="ULCER DRUGS"
"491000"="GI ANTISPASMODICS - ANTICHOLINERGICS"
"491010"="BELLADONNA ALKALOIDS"
"491020"="QUATERNARY ANTICHOLINERGICS"
"491030"="ANTISPASMODICS"
"491040"="ANTICHOLINERGICS"
"491099"="ANTICHOLINERGIC COMBINATIONS"
"492000"="H-2 ANTAGONISTS"
"492500"="PROSTAGLANDINS"

"493000"="MISC. ANTI-ULCER"
"500000"="ANTIEMETICS"
"501000"="ANTIEMETICS - ANTIDOPAMINERGIC"
"502000"="ANTIEMETICS - ANTICHOLINERGIC"
"503000"="ANTIEMETICS MISC."
"503099"="ANTIEMETICS COMBINATIONS"
"510000"="DIGESTIVE AIDS"
"511000"="CHOLERETICS"
"511099"="BILE COMBINATIONS"
"512000"="DIGESTIVE ENZYMES"
"512099"="DIGESTIVE ENZYME COMBINATIONS"
"513000"="GASTRIC ACIDIFIERS"
"514000"="HYDROCHOLERETICS"
"519900"="DIGESTIVE AIDS - MIXTURES"
"519910"="DIGESTIVE MIXTURES W/ SIMETHICONE"
"519920"="DIGESTIVE MIXTURES W/ ANTICHOLINERGICS"
"520000"="MISC. GI"
"521000"="GALLSTONE SOLUBILIZING AGENTS"
"522000"="ANTIFLATULENTS"
"522099"="ANTIFLATULENTS COMBINATIONS"
"523000"="GI STIMULANTS"
"523099"="GI STIMULANTS COMBINATIONS"
"524000"="INTESTINAL ACIDIFIERS"
"525000"="INFLAMMATORY BOWEL AGENTS"
"526000"="HEPATOTROPIC"

GROUPS 53-56 GENITOURINARY PRODUCTS

"530000"="URINARY ANTIINFECTIVES"
"539900"="COMBINATION URINARY ANTIINFECTIVES"
"539905"="METHENAMINE COMBINATIONS"
"539910"="URINARY ANTIINFECTIVE & ANALGESIC"
"539920"="URINARY ANTISEPTIC - ANTISPASMODIC"
"539930"="URINARY ANTIINFECTIVE-ANTISPASM-ANALGESIC"
"540000"="URINARY ANTISPASMODICS"
"549900"="URINARY ANTISPASMODIC COMBINATIONS"
"550000"="VAGINAL PRODUCTS "
"551000"="VAGINAL ANTIINFECTIVES"
"551010"="MISC. VAGINAL ANTIINFECTIVES"
"551099"="VAGINAL ANTIINFECTIVE COMBINATIONS"
"5515O0"="VAGINAL ANTIINFLAMMATORY AGENTS"
"551510"="VAGINAL CORTICOSTEROIDS"
"552000"="DOUCHE PRODUCTS"
"553000"="SPERMICIDES"
"553500"="VAGINAL ESTROGENS"
"554000"="MISC. VAGINAL PRODUCTS"
"554110"="FERTILITY ENHANCERS"
"560000"="MISC. GENITOURINARY PRODUCTS"
"561000"="ACIDIFIERS"
"561010"="PHOSPHATES"
"561020"="SYSTEMIC ACIDIFIERS"
"562000"="ALKALINIZERS"
"562020"="CITRATES"
"563000"="URINARY ANALGESICS"
"565000"="DMSO"
"566000"="URINARY STONE AGENTS"

"567000"="G U IRRIGANTS"
"567010"="ANTIINFECTIVE GU IRRIGANTS"
"568000"="UROPROTECTANTS"
"568500"="PROSTATIC HYPERTROPHY AGENTS"

GROUPS 57-63 CENTRAL NERVOUS SYSTEM DRUGS

"570000"="ANTIANXIETY AGENTS"
"571000"="BENZODIAZEPINES"
"571020"="BENZODIAZEPINE ANTAGONISTS"
"572000"="MISC. ANTIANXIETY AGENTS"
"580000"="ANTIDEPRESSANTS"
"581000"="MAO INHIBITOS"
"582000"="TRICYCLIC AGENTS"
"583000"="MISC. ANTIDEPRESSANTS"
"590000"="ANTIPSYCHOTICS"
"591000"="BUTYROPHENONES"
"591500"="DIBENZODIAZEPINES"
"592000"="PHENOTHIAZINES"
"593000"="THIOXANTHINES "
"594000"="MISC. ANTIPSYCHOTICS"
"595000"="LITHIUM"
"600000"="HYPNOTICS"
"601000"="BARBITURATE HYPNOTICS"
"602000"="NON-BARBITURATE HYPNOTICS"
"602010"="BENZODIAZEPINE HYPNOTICS"
"602040"="IMIDAZOPYRIDINE HYPNOTICS"
"603000"="ANTIHISTAMINE HYPNOTICS"
"603099"="ANTIHISTAMINE HYPNOTIC COMBINATIONS"
"609900"="HYPNOTIC COMBINATIONS"
"610000"="STIMULANTS"
"611000"="AMPHETAMINES"
"611099"="AMPHETAMINE MIXTURES"
"612000"="ANOREXIANTS NON-AMPHETAMINE"
"612099"="ANOREXIANT COMBINATIONS"
"613000"="ANALEPTICS"
"613099"="ANALEPTIC COMBINATIONS"
"614000"="MISC. STIMULANTS"
"620000"="MISC. PSYCHOTHERAPEUTIC"
"621000"="SMOKING DETERRENTS"
"621099"="SMOKING DETERRENT COMBINATIONS"
"629900"="COMBINATION PSYCHOTHERAPEUTICS"
"630000"="R E S E R V E D"

GROUPS 64-71 ANALGESICS AND ANESTHETICS

"640000"="ANALGESICS - NONNARCOTIC"
"641000"="SALICYLATES"
"641099"="SALICYLATE COMBINATIONS"
"642000"="ANALGESICS OTHER"
"642099"="ANALGESICS - OTHER COMBINATIONS"
"649900"="ANALGESIC COMBINATIONS"
"649910"="ANALGESIC-SEDATIVES"
"649920"="ANALGESIC-ANTICHOLINERGICS"
"650000"="ANALGESICS - NARCOTIC"
"651000"="NARCOTIC AGONISTS"

"652000"="NARCOTIC PARTIAL AGONISTS"
"654000"="NARCOTIC ANTAGONISTS"
"659900"="NARCOTIC COMBINATIONS"
"659910"="CODEINE COMBINATIONS"
"659913"="DIHYDROCODEINONE COMBINATIONS"
"659917"="HYDROCODONE COMBINATIONS"
"659920"="PROPOXYPHENE COMBINATIONS"
"659930"="MEPERIDINE COMBINATIONS"
"659940"="PENTAZOCINE COMBINATIONS"
"660000"="ANTI-RHEUMATIC"
"661000"="NSAIA'S"
"661010"="PHENYLBUTAZONES"
"661099"="NSAIA COMBINATIONS"
"662000"="GOLD COMPOUNDS"
"662500"="ANTI-RHEUMATIC ANTIMETABOLITE"
"663000"="MISC. ANTI-RHEUMATIC"
"663099"="MISC. ANTI-RHEUMATIC COMBINATIONS"
"670000"="MIGRAINE PRODUCTS"
"679900"="MIGRAINE COMBINATION"
"679910"="ERGOT COMBINATIONS"
"680000"="GOUT"
"681000"="URICOSURICS"
"689900"="COMBINATION GOUT DRUGS"
"690000"="LOCAL ANESTHETICS - PARENTERAL"
"691000"="LOCAL ANESTHETICS - AMIDES"
"692000"="LOCAL ANESTHETICS - ESTERS"
"699900"="LOCAL ANESTHETIC COMBINATIONS"
"699910"="LOCAL ANESTHETIC & EPINEPHRINE"
"700000"="GENERAL ANESTHETICS"
"700500"="ANESTHETIC GASSES"
"701000"="BARBITURATE ANESTHETICS"
"702000"="VOLATLE ANESTHETICS"
"704000"="MISC. ANESTHETICS"
"704099"="ANESTHETIC COMBINATIONS"
"710000"="R E S E R V E D"

GROUPS 72-76 NEUROMUSCULAR DRUGS

"720000"="ANTICONVULSANT"
"721000"="BENZODIAZEPINES"
"722000"="HYDANTOINS"
"723000"="OXAZOLIDINEDIONES"
"724000"="SUCCINIMIDES"
"725000"="VALPROIC ACID"
"726000"="MISC. ANTICONVULSANTS"
"726099"="ANTICONVULSANT COMBINATIONS"
"730000"="ANTIPARKINSONIAN"
"731000"="ANTIPARKINSONIAN ANTICHOLINERGICS"
"732000"="ANTIPARKINSONIAN DOPAMINERGIC"
"732099"="CARBIDOPA-LEVODOPA"
"733000"="ANTIPARKINSONIAN MONOAMINE OXIDASE INHIBITOR"
"740000"="NEUROMUSCULAR BLOCKERS"
"741000"="DEPLOARIZING MUSCLE RELAXANTS"
"742000"="NONDEPLOARIZING MUSCLE RELAXANTS"
"750000"="SKELETAL MUSCLE RELAXANTS"
"751000"="CENTRAL MUSCLE RELAXANTS"

"752000"="DIRECT MUSCLE RELAXANTS"
"753000"="MISC. MUSCLE RELAXANTS"
"759900"="MUSCLE RELAXANT COMBINATIONS"
"760000"="ANTIMYASTHENIC AGENTS"
"769900"="ANTIMYASTHENIC COMBINATIONS"

GROUPS 77-81 NUTRITIONAL PRODUCTS

"770000"="VITAMINS"
"771000"="WATER SOLUBLE VITAMINS"
"771010"="VITAMIN B-1"
"771020"="VITAMIN B-2"
"771030"="VITAMIN B-3"
"771040"="VITAMIN B-5"
"771050"="VITAMIN B-6"
"771060"="BIOTIN"
"771070"="PABA"
"771080"="VITAMIN C"
"772000"="OIL SOLUBLE VITAMINS"
"772010"="VITAMIN A"
"772020"="VITAMIN D"
"772030"="VITAMIN E"
"772040"="VITAMIN K"
"773000"="MISC. NUTRITIONAL FACTORS"
"773030"="BIOFLAVINOIDS"
"773099"="MISC. NATURAL VITAMINS"
"780000"="MULTIVITAMINS"
"781000"="VITAMIN MIXTURES"
"781010"="VITAMINS A & D"
"781015"="VITAMINS A & D W/ C"
"781017"="VITAMINS A, C, D & E"
"781020"="VITAMINS ACE & ZN"
"781030"="VITAMINS B 1-2-3"
"781040"="VITAMINS C & E"
"781045"="NIACIN W/ C"
"781050"="VITAMINS B1 & B6"
"781060"="VITAMINS B1, B6 & B12"
"781100"="B-COMPLEX VITAMINS"
"781110"="BREWERS YEAST"
"781200"="B-COMPLEX W/ C"
"781205"="B-COMPLEX W/ C & MG"
"781210"="B-COMPLEX W/ C + MG ZN"
"781220"="B-COMPLEX W/ C & E"
"781225"="B-COMPLEX W/ C & E + ZN"
"781300"="B-COMPLEX W/ FOLIC ACID"
"781330"="B-COMPLEX W/ C FOLIC ACID"
"781400"="B-COMPLEX W/ IRON"
"781500"="B-COMPLEX W/ MINERALS"
"781600"="BIOFLAVONOID PRODUCTS"
"782000"="MULTIPLE VITAMINS"
"782010"="HEXAVITAMINS"
"782100"="MULTIPLE VITAMINS W/ IRON"
"783000"="MULTIPLE VITAMINS & MINERALS"
"783100"="MULTIPLE VITAMINS W/ MINERALS"
"783400"="MULTIPLE VITAMINS W/ FLUORIDE"
"783500"="MULTIPLE VITAMINS W/ CALCIUM"

"784000"="PEDIATRIC VITAMINS"
"784015"="PEDIATRIC VITAMINS A & D W/ C"
"784100"="PEDIATRIC MULTIPLE VITAMINS"
"784200"="PED MULTIPLE VITAMINS W/ MINERALS"
"784300"="PED MV W/ IRON"
"784400"="PED MV W/ FLUORIDE"
"784405"="PED VITAMINS ACD W/FLOURIDE"
"784410"="PED MV W/FLUORIDE"
"784500"="PED MULTIPLE VITAMINS W/FL & FE"
"784520"="PED VITAMINS ACD FLUORIDE & IRON"
"785000"="SPECIALTY VITAMINS PROCDUCTS"
"785100"="PRENATAL VITAMINS"
"785110"="PRENATAL MV & MINERALS W/ IRON"
"785120"="PRENATAL MV & MINERALS W/ IRON & FA"
"785130"="PRENATAL MV & MINERALS W/ FA"
"785200"="VITAMINS W/ LIPOTROPICS"
"785300"="VITAMINS W/ HORMONES"
"786000"="HEMATINIC-VITAMIN PRODUCTS"
"786100"="IRON W/ VITAMINS"
"786200"="B-12 W/ VITAMINS"
"786300"="IRON & B12 W/ VITAMINS"
"790000"="MINERALS - ELECTROLYTES"
"790500"="BICARBONATES"
"791000"="CALCIUM"
"791099"="CALCIUM COMBINATIONS"
"792000"="CHLORIDE"
"793000"="FLUORIDE"
"793500"="IODINE PRODUCTS"
"794000"="MAGNESIUM"
"794099"="MAGNESIUM COMBINATIONS"
"795000"="MANGANESE"
"796000"="PHOSPHATE"
"797000"="POTASSIUM"
"797099"="POTASSIUM COMBINATIONS"
"797500"="SODIUM"
"798000"="ZINC"
"798099"="ZINC COMBINATIONS"
"798500"="MINERAL COMBINATIONS"
"799000"="TRACE MINERALS"
"799099"="TRACE MINERAL COMBINATIONS"
"799900"="ELECTROLYTE MIXTURES"
"799910"="ELECTROLYTES ORAL"
"799920"="ELECTROLYTES PARENTERAL"
"799930"="ELECTROLYTES & DEXTROSE"
"799940"="ELECTROLYTES & INVERT SUGAR"
"799950"="PARENTERAL ELECTROLYTES W/ FRUCTOSE"
"800000"="NUTRIENTS"
"801000"="CARBOHYDRATE"
"802000"="LIPIDS"
"803000"="PROTEIN"
"803010"="PROTEIN PRODUCTS"
"803020"="AMINO ACID MIXTURES"
"803030"="AMINO ACIDS-SINGLE"
"804000"="LIPOTROPICS"
"804099"="LIPOTROPIC COMBINATIONS"
"805000"="MISC. NUTRITIONAL SUBSTANCES"

"805099"="MISC. NUTRITIONAL SUBSTANCES COMBINATIONS"
"810000"="DIETARY PRODUCTS"
"811000"="INFANT FOODS"
"812000"="NUTRITIONAL SUPPLEMENTS"
"812010"="NUTRITIONAL SUPPLEMENTS - DIET AIDS"
"813000"="TUBE FEEDINGS"
"814000"="NUTRITIONAL SUBSTITUTES"
"814010"="SALT SUBSTITUTES"
"814020"="SWEETNERS"
"819000"="NUTRITIONAL MODIFIERS"

GROUPS 82-85 HEMATOLOGICAL AGENTS

"820000"="HEMATOPOETIC AGENTS"
"821000"="COBALAMINES"
"821010"="LIVER PREPARATIONS"
"821500"="INTRINSIC FACTOR"
"822000"="FOLIC ACID"
"823000"="IRON"
"823099"="IRON COMBINATIONS "
"824000"="COLONY STIMULATIG FACTOR"
"824010"="ERYTHROPOIETINS"
"824020"="LUEKOCYTES"
"824030"="PLATELETS"
"827000"="MISC. HEMATOPOETIC AGENTS"
"829900"="HEMOATOPOETIC MIXTURES"
"829910"="COBALAMINE COMBINATIONS"
"829920"="IRON COMBINATIONS"
"829930"="IRON W/ B12"
"829940"="IRON W/ FOLIC ACID"
"829950"="IRON-B12-FOLATE"
"830000"="ANTICOAGULANTS"
"831000"="HEPARINS"
"831010"="LOW MOLECULAR WEIGHT HEPARINS"
"832000"="COUMARIN ANTICOAGULANTS"
"833000"="INDANDIONE ANTICOAGULANTS"
"834000"="IN VIRO ANTICOAGULANTS"
"840000"="HEMOSTATICS"
"841000"="HEMOSTATICS - SYSTEMIC"
"841099"="SYSTEMIC HEMOSTATIC COMBINATIONS"
"842000"="HEMOSTATICS - TOPICAL"
"850000"="MISC. HEMATOLOGICAL"
"851000"="ANTIHEMOPHILIC PRODUCTS"
"851500"="ANTIPLATELET"
"851599"="ANTIPLATELET COMBINATIONS"
"852000"="HEMATORHEOLOGICAL"
"852500"="HEMIN"
"853000"="PLASMA EXPANDERS"
"854000"="PLASMA PROTEINS"
"855000"="PROTAMINE"
"856000"="THROMBOLYTIC ENZYMES"
"856010"="TISSUE PLASMINOGEN ACTIVATOR"
"857000"="HEMATOLOGIC OXYGEN TRANSPORTER"

GROUPS 86-91 TOPICAL PRODUCTS

"860000"="OPHTHALMIC"
"861000"="OPHTHALMIC ANTIINFECTIVES"
"861010"="OPHTHALMIC ANTIBIOTICS"
"861020"="OPHTHALMIC SULFONAMIDES"
"861030"="OPHTHALMIC ANTIVIRALS"
"861040"="OPHTHALMIC ANTIFUNGAL"
"861050"="OPHTHALMIC ANTISEPTICS"
"861099"="OPHTHALMIC ANTIINFECTIVE COMBINATIONS"
"862000"="ARTIFICIAL TEARS AND LUBRICANTS"
"862010"="ARTIFICIAL TEAR SOLUTIONS"
"862020"="ARTIFICIAL TEAR OINTMENTS"
"862030"="ARTIFICIAL TEAR INSERT"
"862040"="GONIOSCOPIC SOLUTION"
"862500"="BETA-BLOCKERS - OPHTHALMIC"
"863000"="OPHTHALMIC STEROIDS"
"863099"="OPHTHALMIC STEROID COMBINATIONS"
"863500"="CYCLOPLEGICS"
"863599"="CYCLOPLEGIC COMBINATIONS"
"864000"="OPHTHALMIC DECONGESTANTS"
"864099"="OPHTHALMIC DECONGESTANT COMBINATIONS"
"865000"="MIOTICS"
"865010"="MIOTICS - DIRECT ACTING"
"865020"="MIOTICS - CHOLINESTERASE INHIBITORS"
"865099"="MIOTIC COMBINATIONS"
"866000"="ADRENERGIC MYDRIATICS"
"867500"="OPHTHALMIC LOCAL ANESTHETICS"
"868000"="MISC. OPHTHALMICS"
"868010"="OPHTHALMIC ENZYMES"
"868020"="OPHTHALMIC ANTIALLERGIC"
"868030"="OPHTHALMIC IRRIGATION SOLUTIONS"
"868040"="OPHTHALMIC HYPEROSMOLAR PRODUCTS"
"868050"="OPHTHALMIC NSAIA'S AGENT"
"868060"="OPHTHALMIC DIAGNOSTIC PRODUCTS"
"868070"="MISC. OPHTHALMICS"
"869000"="CONTACT LENS SOLUTIONS"
"869010"="HARD LENS PRODUCTS"
"869020"="SOFT LENS PRODUCTS"
"869030"="OXYGEN PERMEABLE LENS PRODUCTS"
"870000"="OTIC"
"871000"="OTIC ANTIBIOTICS"
"871099"="OTIC ANTIBIOTIC COMBINATIONS"
"872000"="OTIC ANALGESICS"
"873000"="OTIC STEROIDS"
"874000"="OTIC MISC."
"879900"="OTIC COMBINATIONS"
"879910"="OTIC STEROID COMBINATIONS"
"879920"="OTIC ANALGESIC COMBINATIONS"
"879930"="OTIC ANTIFUNGAL COMBINATIONS"
"880000"="MOUTH - THROAT (LOCAL)"
"881000"="ANTIINFECTIVES - THROAT"
"881099"="MISC. ANTIINFECTIVES - THROAT"
"881500"="ANTISEPTICS - MOUNT/THROAT"
"881599"="ANTISEPTIC COMBINATIONS - MOUTH/THROAT"
"882000"="LOZENGES"
"825000"="STEROIDS - MOUTH"
"883000"="MOUTHWASHES"

"883500"="ANESTHETICS, TOPICAL ORAL"
"883599"="ANESTHETICS, TOPICAL ORAL - COMBOS 8"
"884000"="DENTAL PRODUCTS"
"884010"="FLUORIDE DENTAL RINSE"
"884020"="FLUORIDE DENTAL GEL"
"884030"="FLUORIDE TOOTHPASTE"
"885000"="MISC. THROAT PRODUCTS"
"885010"="ARTIFICAL SALIVA"
"885020"="PROTECTANTS"
"890000"="ANORECTAL"
"891000"="RECTAL STEROIDS"
"891500"="INTRARECTAL STEROIDS"
"892000"="RECTAL LOCAL ANESTHETICS"
"893000"="MISC. RECTAL PRODUCTS"
"894000"="RECTAL PROTECTANTS - EMOLLIENTS"
"899900"="RECTAL COMBINATIONS"
"889910"="RECTAL ANESTHETIC/STEROIDS"
"899920"="RECTAL ANESTHETIC COMBINATIONS"
"899930"="RECTAL STEROID COMBINATIONS"
"899940"="MISC. RECTAL COMBINATIONS"
"900000"="DERMATOLOGICAL"
"900500"="ACNE PRODUCTS"
"900510"="ACNE ANTIBIOTICS"
"900520"="ACNE CLEANSERS"
"900599"="ACNE COMBINATIONS"
"900700"="ANALGESICS"
"901000"="ANTIBIOTICS - TOPICAL"
"991098"="ANTIBIOTIC MIXTURES TOPICAL"
"901099"="ANTIBIOTIC STEROID COMBINATIONS"
"901500"="ANTIFUNGALS - TOPICAL"
"901599"="ANTIFUNGALS - TOPICAL COMBINATIONS"
"902000"="ANTIHISTAMINES-TOPICAL"
"902099"="ANTIHISTAMINES - TOPICAL COMBINATIONS"
"902100"="ANTIINFLAMMATORY AGENTS"
"902200"="ANTIPRURTICS"
"902299"="ANTIPRURTICS - COMBINATIONS"
"902500"="ANTIPSORATICS"
"902510"="ANTIPSORATIC, TAR CONTAINING"
"902599"="ANTIPSORATIC COMBINATIONS"
"903000"="ANTISEBORRHEIC PRODUCTS"
"903099"="ANTISEBORRHEIC COMBINATIONS"
"903500"="ANTIVIRAL - TOPICAL"
"904000"="BATH PRODUCTS"
"904500"="BURN PRODUCTS"
"905000"="CAUTERIZING AGENTS"
"905099"="CAUTERIZING AGENT COMBINATIONS"
"905200"="TAR PRODUCTS"
"905299"="TAR COMBINATIONS"
"905500"="CORTICOSTEROIDS - TOPICAL"
"905598"="STEROID-LOCAL ANESTHETICS"
"905599"="TOPICAL STEROID COMBINATIONS"
"906000"="DIAPER RASH PRODUCTS"
"906500"="EMOLLIENTS"
"906599"="EMOLLIENT COMBINATIONS"
"907000"="ENZYMES - TOPICAL"
"907099"="ENZYME MIXTURES - TOPICAL"

"907500"="KERATOLYTICS"
"907599"="KERATOLYTIC COMBINATIONS"
"908000"="LIMINENTS"
"908500"="LOCAL ANESTHETICS - TOPICAL"
"908510"="TOPICAL ANESTHETIC GASSES"
"908599"="TOPICAL ANESTHETIC COMBINATIONS"
"908700"="PIGMENTING-DEPIGMENTING AGENTS"
"908710"="PIGMENTING AGENTS"
"908720"="DEPIGMENTING AGENTS"
"909000"="SCABICIDES & PEDICULOCIDES"
"909099"="SCABICIDE COMBINATIONS"
"909200"="SUNSCREENS"
"909500"="POISON IVY PRODUCTS"
"909700"="MISC. TOPICAL"
"909710"="ASTRINGENTS"
"909720"="SKIN PROTECTANTS"
"909730"="SOAPS"
"909740"="SHAMPOOS"
"909750"="POWDERS"
"909760"="SKIN OILS"
"909770"="LUBRICANTS"
"909800"="PODIATRIC PRODUCTS"
"909900"="MISC. DERMATOLOGICAL PRODUCTS"
"910000"="R E S E R V E D"

GROUPS 92-99 MISCELLANEOUS PRODUCTS

"920000"="ANTISEPTICS & DISINFECTANTS"
"921000"="CHLORINE ANTISEPTICS"
"921099"="CHLORINE ANTISEPTIC COMBINATIONS"
"922000"="IODINE ANTISEPTICS"
"922099"="IODINE ANTISEPTIC COMBINATIONS"
"923000"="MERCURY ANTISEPTICS"
"924000"="SILVER ANTISEPTICS"
"929900"="ANTISEPTIC COMBINATIONS"
"930000"="ANTIDOTES"
"931000"="CHELATING AGENTS"
"939900"="ANTIDOTE KITS"
"940000"="DIAGNOSTIC PRODUCTS"
"941000"="DIAGNOSTIC REAGANTS"
"941010"="INFECTION TESTS"
"941075"="CONTROL REAGENTS"
"941099"="MULTIPLE URINE TESTS"
"942000"="DIAGNOSTIC DRUGS"
"943000"="DIAGNOSTIC BIOLOGICALS"
"943099"="MULTIPLE SKIN TESTS"
"944000"="RADIOGRAPHIC CONTRAST MEDIA"
"944010"="BARIUM"
"944020"="IODINATED"
"945000"="NON-RADIOGRAPHIC CONTRAST MEDIA"
"946000"="DIAGNOSTIC PRODUCTS, MISC."
"950000"="R E S E R V E D"
"960000"="CHEMICALS"
"961000"="ACIDS, BASES, & BUFFERS"
"961010"="ACIDS"
"961020"="BASES"

"961030"="BUFFERS"
"962000"="LIQUIDS"
"962010"="SOLVENTS"
"962020"="FIXED OILS"
"962025"="ESSENTIAL OILS"
"963000"="SOLIDS"
"963099"="SOLID COMBINATIONS"
"964000"="SEMI-SOLIDS"
"970000"="MEDICAL DEVICES"
"970500"="PARENTERAL THERAPY SUPPLIES"
"970510"="NEEDLES & SYRINGES"
"970520"="IV SETS/TUBING"
"970530"="BLOOD ADMINISTRATION SETS"
"970540"="INFUSION PUMPS"
"971000"="RESPIRATORY THERAPY SUPPLIES"
"971010"="NEBULIZERS"
"971020"="HUMIDIFIERS"
"971200"="RESPIRATORY AIDS"
"971210"="MASKS"
"971500"="GI-GU OSTOMY - IRRIGATION SUPPLIES"
"971505"="CATHETERS"
"971510"="OSTOMY SUPPLIES"
"971520"="INCONTENENTENCE SUPPLIES"
"971525"="IRRIGATION - TYPE SYRINGES"
"971530"="URINARY DRAINAGE & IRRIGATION SUPPLIES"
"971700"="PERITONEAL DIALYSIS"
"972000"="DIABETIC SUPPLIES"
"972010"="INSULIN ADMINISTRATION SUPPLIES"
"972020"="GLUCOSE MONITORING TEST SUPPLIES"
"972500"="ENTERAL NUTRITION SUPPLIES"
"972510"="FEEDING TUBES"
"973000"="BANDAGES - DRESSINGS - TAPE"
"973010"="ADHESIVE BANDAGES"
"973020"="GAUZE BANDAGES"
"973030"="GAUZE PADS & DRESSINGS"
"973040"="ADHESIVE TAPE"
"973500"="ELASTIC BANDAGES - SUPPORTS"
"973700"="HEATING AIDS"
"973710"="HEATING PADS"
"973720"="HOT PACKS"
"973800"="COOLING AIDS"
"973810"="COLD PACKS"
"973900"="BACK PLASTERS"
"974000"="CONTRACEPTIVES"
"974010"="CONDOMS"
"974020"="DIAPHRAGMS"
"974030"="IUD'S"
"974040"="CONTRACEPTIVE SPONGE"
"974500"="FEMALE PERSONAL CARE PRODUCTS"
"974510"="SANITARY NAPKINS & TAMPONS"
"974520"="DOUCHE SUPPLIES"
"975000"="ORAL HYGIENE PRODUCTS"
"975005"="DENTAL SUPPLIES"
"975010"="DENTURE CARE PRODUCTS"
"975020"="TOOTHBRUSHES - FLOSS"
"975030"="DENTIFRICES"

"975500"="INFANT CARE PRODUCTS"
"975510"="FEEDING SUPPLIES"
"975520"="DIAPERS"
"975530"="NURSING PADS"
"976000"="OPTICAL SUPPLIES"
"976010"="CONTACT LENS CARE SUPPLIES"
"976020"="EYEGLASS CARE SUPPLIES"
"976030"="EYE PATCHES"
"976500"="DURABLE MEDICAL EQUIPMENT"
"977000"="MISC. DEVICES"
"977010"="THERDADETERS"
"977020"="DISPOSABLE GLOVES"
"977030"="APPLICATORS, COTTON BALLS, ETC."
"977040"="RUBBER GOODS"
"977070"="RAZORS AND BLADES"
"977080"="SPONGES"
"978000"="FOOT CARE PRODUCTS"
"978500"="FIRST AID KITS"
"980000"="PHARMACEUTICAL ADJUVANTS"
"981000"="ANITMICROBIAL AGENTS"
"982000"="ANTIOXIDANTS"
"983000"="COLORING AGENTS"
"983500"="PHARMACEUTICAL EXCIPIENTS"
"983510"="EXTERNAL VEHICLE INGREDIENTS"
"984000"="LIQUID VEHICLE"
"984010"="PARENTERAL VEHICLES"
"984020"="ORAL VEHICLES"
"984030"="EXTERNAL VEHICLES"
"985000"="PRESERVATIVES, OTHER"
"986000"="SEMISOLID VEHICLE"
"990000"="UNCLASSIFIED"
"991000"="CARDIOPLEGIC SOLUTION"
"992000"="CHELATING AGENTS"
"993000"="COLLAGEN IMPLANT"
"993500"="ENZYMES"
"994000"="IMMUNOSUPPRESSIVE AGENTS"
"994500"="K REMOVING RESIN"
"995000"="PROSTAGLANDINS"
"996500"="SCLEROSING AGENTS"
"997000"="PERITONEAL DIALYSIS SOLUTIONS"
"997500"="IRRIGATION SOLUTIONS"
"998000"="ORGAN PRESERVATION SOLUTION"
"998500"="MISC. NATURAL PRODUCTS"
"999000"="NOT CLASSIFIED"
"999030"="UNCLASSIFIED OTC PRODUCT"
"$$$$$$" = "NON-MEDICATIONS" ;