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Dataset Integrity Check for Chronic Renal Insufficiency Cohort (CRIC): DSIC 2 --- Atrial Fibrillation Dataset (M_37)

As a partial check of the integrity of the CRIC datasets archived in the NIDDK data repository, a set of tabulations was performed to verify that published results from the CRIC study can be reproduced using the archived datasets. Analyses were performed to duplicate published results for two CRIC datasets. The present Dataset Integrity Check (DSIC) reports results for the atrial fibrillation analysis dataset (M_37). This dataset supports findings reported by Soliman et al. in 2010 in the *American Heart Journal* [1]. The results of our dataset integrity check are described below.

Purpose. The intent of this dataset integrity check is to provide confidence that the dataset distributed by the NIDDK repository is a true copy of the study data. Our intent is not to assess the integrity of the statistical analyses reported by study investigators. As with all statistical analyses of complex datasets, complete replication of a set of statistical results should not be expected on a first (or second) exercise in secondary analysis. This occurs for a number of reasons including differences in the handling of missing data, restrictions on cases included in samples for a particular analysis, software coding used to define complex variables, etc. Experience suggests that most discrepancies can ordinarily be resolved by consultation with the study DCC, however this process is labor-intensive for both DCC and Repository staff. It is thus not our policy to resolve every discrepancy that is observed in a dataset integrity check. Thus, we do not attempt to resolve minor or inconsequential discrepancies with published results or discrepancies that involve complex analyses unless staff of the NIDDK Repository suspect that the observed discrepancy suggests that the dataset may have been corrupted in storage, transmission, or processing by repository staff. We do, however, document such discrepancies in footnotes to the dataset integrity check or by highlighting in tables those instances in which

our secondary analyses produced results that were not fully consistent with those reported in the target publication.

Datasets. The dataset used for these analyses was m37_20100104.sas7bdat received from the DCC (with date stamps of 12-23-2010).[1] This SAS dataset was converted to STATA format using Stat/Transfer and output as a STATA data file m37_20100104.dta: (date stamp: 3-16-2011). Although a SAS format file (formats.sas7bcat) was provided by the DCC, incompatible use of upper and lower case letters prevented a simple translation of value labels using Stat/Transfer. Equivalent STATA value labels were constructed, and they were applied to create a new STATA dataset with value labels (m37_w_Labels.dta; time-date stamp: 3-16-2011, 2-42pm).

Comparison of Characteristics of Subjects. Table 1 of the Soliman et al. article reports sample sizes and selected characteristics of CRIC cohort. The archived data were analyzed to produce the same characteristics reported by Soliman et al. Our **Table 1** compares the published results to those obtained from our analysis of the archived data. It will be seen from **Table 1** that our calculations from the archived data are fully equivalent to the published results.

Comparison of Atrial Fibrillation (AF) Prevalence by Selected Characteristics. Table 2 of the Soliman et al. article reports the prevalence of atrial fibrillation for the total population and subpopulations defined by eGFR status, age, gender, and race/ethnicity. As will be seen from our **Table 2,** calculations from the archived dataset yielded results that were identical to those reported in the published article.

Unadjusted association of AF and selected characteristics. The first panel of Table 3 in Soliman et al. reports unadjusted association between AF and selected sociodemographic and medical characteristics and the prevalence of atrial fibrillation. Our **Table 3a** compares the published results with those obtained by analysis of the archive CRIC data. With one exception, the results of our calculations are identical to the published results. The one exception occurs for gender. The published OR for female gender is the inverse of the result

[1] This same file was re-transmitted in July of 2011 with other data files that included corrections. The AF analysis file in this re-transmission had identical file name, file size, and time-and-date stamp as the original file transmitted in December of 2010.

we obtained. That is to say that rather than females having 0.98 lower odds of reporting atrial fibrillation, we obtain this result for males.

Demographically adjusted association of AF and selected characteristics. Our **Table 3b** repeats the previous analysis **(Table 3a)** but the estimated impact of respondent characteristics are adjusted for: age, gender, race (non-Hispanic Black vs. other), and the study center that enrolled the subject. Here again we fully replicate the published findings except for gender. The published results report that females have lower adjusted odds (0.90) than males of reporting AF. We obtain an identical result but for males not females

Multivariable adjusted association of AF and selected characteristics. Table 4 of Soliman et al. report a final model predicting atrial fibrillation as a function of age, gender, education, total cholesterol level, BMI, physical activity, smoking status, and presence of congestive heart failure and other cardiovascular disease. Our **Table 4** compares the published results to our estimated coefficients for the same multivariable logistic regression model fit to the archived data. As **Table 4** shows, the results are again identical with the exception of those for gender.[2] The published results for "females" are equivalent to the results we obtained for males.

Conclusion. Our results fully replicate the published findings with the exception of the three instances noted above. The DCC for CRIC has informed us that there is an error in the published tables and that the three calculated results are correct

References.

[1] Soliman EZ, Prineas RJ, Go AS, Xie D, Lash JP, Rahman M, Ojo A, Teal VL, Jensvold NG, Robinson NL, Dries DL, Bazzano L, Mohler ER, Wright JT, Feldman HI; Chronic Renal Insufficiency Cohort (CRIC) Study Group. Chronic kidney disease and prevalent atrial fibrillation: the Chronic Renal Insufficiency Cohort (CRIC). Am Heart J. 2010 Jun;159(6):1102-7. Erratum in: Am Heart J. 2010 Dec;160(6):1190.

[2] There was also a minor deviation in p-values for education (p = 0.06 vs. 0.09).

TABLE 1. Characteristics of the CRIC study population: Published versus tabulated results.

CHARACTERISTIC	Published	Calculated
Age (y)	58.55 (10.81)	58.55 (10.81)
Sex (male)	1775 (54%)	1775 (54%)
Race/ethnicity (non-Hispanic black)	1640 (50%)	1640 (50%)
Education		
< high school grad	523 (16%)	523 (16%)
High school grad	649 (20%)	649 (20%)
Post–high school	1028 (31%)	1028 (31%)
College graduate	606 (19%)	606 (19%)
Postgraduate degree	461 (14%)	461 (14%)
Smoker		
Current	470 (14%)	470 (14%)
Former	1392 (43%)	1392 (43%)
Never	1405 (43%)	1405 (43%)
Alcohol use (drinkers)	1310 (40%)	1310 (40%)
Total physical activity (METh/wk)	204.6 (148.33)	204.6 (148.33)
Hypertension	2807 (86%)	2807 (86%)
Diabetes	1486 (45%)	1486 (45%)
Congestive heart failure	328 (10%)	328 (10%)
Cardiovascular Disease	1125 (34%)	1125 (34%)
eGFR (mL/[min1.73m2])	43.6 (13.4)	43.6 (13.4)
Participants with eGFRb < 45mL/(min1.	1795 (55%)	1795 (55%)
Body mass index (kg/m2)	32.31 (8.0)	32.31 (8.0)
Total cholesterol (mg/dL)	182.8 (43.8)	182.8 (43.8)
Uric acid (mg/dL)	7.4 (1.9)	7.4 (1.9)
hs-CRP (mg/dL)	5.8 (10.2)	5.8 (10.2)
(N)	(3,267)	(3,267)

TABLE 2. Prevalence of atrial fibrillation by eGFR, age, sex, and race/ethnicity: Comparison of published results to results calculated from archived dataset.

SUBPOPULATIONS	PUBLISHED			CALCULATED		
	N	AF n (%)	P value	N	AF n (%)	P value
All population	3267	602 (18.4%)		3267	602 (18.4%)	
eGFR (mL/[min 1.73 m2])			<.0010			0.001
<45	1795	367 (20.4%)		1795	367 (20.4%)	
45+	1472	235 (16.0%)		1472	235 (16.0%)	
Age (y)			<.0001			<0.001
<40	239	19 (7.9%)		239	19 (7.9%)	
40-49	398	49 (12.3%)		398	49 (12.3%)	
50-59	958	162 (16.9%)		958	162 (16.9%)	
60-69	1217	256 (21.0%)		1217	256 (21.0%)	
70+	455	116 (25.5%)		455	116 (25.5%)	
Sex			0.7807			0.7807
Male	1775	324 (18.3%)		1775	324 (18.3%)	
Female	1492	278 (18.6%)		1492	278 (18.6%)	
Race/ethnicity			0.0156			0.016
Non-Hispanic white	1627	273 (16.8%)		1627	273 (16.8%)	
Non-Hispanic black	1640	329 (20.1%)		1640	329 (20.1%)	

TABLE 3a. Unadjusted association of AF (atrial fibrillation) and selected sociodemographic and biomedical characteristics of patients: Comparison published results (Table 3, columns 1-3) and calculations from dataset archived at NIDDK Central Repository.

Independent Variables	PUBLISHED		CALCULATED	
	OR (95% CI)*	P value	OR (95% CI)*	P value
Age (y)‡	1.03 (1.02-1.04)	<.0001	1.03 (1.02-1.04)	<.001
Male sex**	0.98 (0.82-1.16)**	0.7805	0.975 (0.817-1.164)**	0.781
Race (non-Hispanic black vs. other)	1.24 (1.04-1.49)	0.0157	1.24 (1.04-1.49)	0.0155
Education (reference: post–high school education)				
Less than high school graduate	1.40 (1.09-1.80)	0.0086	1.40 (1.09-1.80)	0.009
High school graduate	0.86 (0.67-1.12)	0.2673	0.86 (0.67-1.12)	0.267
College graduate	0.80 (0.61-1.04)	0.099	0.80 (0.61-1.04)	0.099
Postgraduate degree	0.69 (0.51-0.93)	0.0162	0.69 (0.51-0.93)	0.016
Total cholesterol (mg/dL)‡	1.00 (0.99-1.00)	0.0006	0.996 (0.994 - 0.998)	0.001
Uric acid (mg/dL) ‡	1.04 (1.00-1.09)	0.0716	1.040 (0.996-1.093)	0.072
eGFR (mL/[min 1.73 m^2]) (eGFR<45 vs. 45)	1.35 (1.13-1.62)	0.001	1.35 (1.13-1.62)	0.001
hs-CRP (mg/dL)‡	1.00 (1.00-1.01)	0.2751	1.004 (0.996-1.0125)	0.2751
Body mass index (kg/m^2)‡	1.01 (1.00-1.02)	0.0398	1.01 (1.00-1.02)	0.04
Physical activity (total MET h/wk)‡	1.00 (1.00-1.00)	<.0001	0.998 (0.997-0.999)	<.001
Smoking status (reference: never)				
Current	1.38 (1.04-1.82)	0.0237	1.38 (1.04-1.82)	0.024
Former	1.78 (1.46-2.16)	<.0001	1.78 (1.46-2.16)	<.001
Alcohol use (drinker vs. other)	0.75 (0.62-0.90)	0.0022	0.75 (0.62-0.90)	0.002
Hypertension	1.18 (0.91-1.54)	0.2201	1.18 (0.91-1.54)	0.22
Diabetes	1.25 (1.05-1.49)	0.0139	1.25 (1.05-1.49)	0.014
Congestive heart failure	5.63 (4.43-7.14)	<.0001	5.63 (4.43-7.14)	<.001
Any cardiovascular disease	3.48 (2.90-4.17)	<.0001	3.48 (2.90-4.17)	<.001

* Odds ratios represent unadjusted association of individual variables in the first column with AF.

** As discussed in text, the published article reports results as being for FEMALE subjects. Analysis indicates that published results are for MALE subjects.

‡ The originally published table states that coefficients for continuous variables were odds ratios for a *one standard deviation change* in independent variable. While this is true for Model 2 (see Table 3b) it is not true for the Model 1 (above). Calculations of unadjusted results shown above are for a single unit change in the independent variable (e.g., one year of age) not 1 sd of change in independent variable. The authors issued a correction noting this fact in Am Heart J. 2010 Dec;160(6):1190.

TABLE 3b. Association of AF (atrial fibrillation) and selected sociodemographic and biomedical characteristics of patients controlling for sociodemographic characteristics of sample (age, gender, ethnicity) and clinical site: Comparison of published results (Table 3, columns 1 and 4-5) and calculations from dataset archived at NIDDK Central Repository.

Independent Variables	PUBLISHED		CALCULATED		
	OR (95% CI)†	P value	OR†	95% CI†	P value**
Age (y)‡	1.46 (1.32-1.62)	<.0001	1.464	1.321 - 1.621	<0.001
Male sex*	0.90 (0.75-1.09)	0.2875	0.903	0.748 - 1.090	0.287
Race (non-Hispanic black vs. non-Hispanic whit	1.25 (1.03-1.52)	0.0228	1.252	1.032 - 1.518	0.023
Education (reference: post–high school education)		0.0452			0.045
Less than high school graduate	1.13 (0.86-1.47)		1.126	0.862 - 1.471	
High school graduate	0.78 (0.60-1.01)		0.771	0.598 - 1.010	
College graduate	0.85 (0.65-1.13)		0.854	0.648 - 1.126	
Postgraduate degree	0.73 (0.53-1.00)		0.728	0.529 - 1.001	
Total cholesterol (mg/dL)‡	0.85 (0.77-0.94)	0.0014	0.853	0.774 - 0.940	0.001
Uric acid (mg/dL) ‡	1.01 (0.92-1.11)	0.8366	1.010	0.918 - 1.112	0.837
eGFR (mL/[min 1.73 m2]) (eGFR<45 vs 45)	1.12 (0.92-1.35)	0.271	1.115	0.920 - 1.353	0.271
hs-CRP (mg/dL)‡	1.02 (0.94-1.12)	0.5922	1.024	0.940 - 1.115	0.592
Body mass index (kg/m^2)‡	1.09 (1.00-1.20)	0.0599	1.092	0.996 - 1.197	0.060
Physical activity (total MET h/wk)‡	0.85 (0.76-0.95)	0.0056	0.853	0.763 - 0.955	0.006
Smoking status (reference: never)		0.0001			
Current	1.30 (0.98-1.73)		1.299	0.976 - 1.727	
Former	1.56 (1.27-1.91)		1.560	1.273 - 1.913	
Alcohol use (drinker vs nondrinkers)	0.87 (0.71-1.06)	0.1678	0.870	0.713 - 1.061	0.168
Hypertension	0.83 (0.63-1.11)	0.2036	0.831	0.625 - 1.105	0.204
Diabetes	1.11 (0.92-1.33)	0.2828	1.106	0.921 - `1.328	0.283
Congestive heart failure	5.20 (4.06-6.67)	<.0001	5.205	4.062 - 6.671	<0.001
Any cardiovascular disease	3.06 (2.53-3.71)	<.0001	3.062	2.529 - 3.708	<0.001

*** As discussed in text, the published article reports these results as being for FEMALE subjects. Analysis indicates that published results are for MALE subjects.**

** For binary independent variables, p-values are for tests of statistical significance of the estimated logisitc regression coefficeint. For categorical independent variables with 3 or more categories (i.e., education and smoking), p-values are for Wald tests of hypotheses that impact of categories of these variables was zero.

† Odds ratios represent age-, sex-, race/ethnicity-, and clinical center–adjusted associations of the individual variables in the first column with AF.

‡ Odds ratios for continuous variables are for 1-SD increase.

TABLE 4. Multivariable adjusted associations of variables with atrial fibrillation: Comparison of published and calculated values.

INDEPENDENT VARIABLES*	PUBLISHED		CALCULATED				
	OR (95% CI)‡	P value	OR‡	95% CI			P values**
Age (y)†	1.27 (1.13-1.43)	< .0001	1.272	1.131	-	1.430	< 0.001
Male sex* **	0.80 (0.65-0.98)	0.0303	0.796	0.648	-	0.979	0.030
Race (non-Hispanic black)	1.07 (0.86-1.34)	0.5283	1.073	0.862	-	1.335	0.528
Education (reference: post–high school education)		0.0662			-		0.093
Less than high school graduate	1.14 (0.86-1.52)		1.141	0.859	-	1.517	
High school graduate	0.76 (0.58-1.01)		0.762	0.578	-	1.009	
College graduate	1.03 (0.77-1.37)		1.025	0.768	-	1.369	
Postgraduate degree	0.84 (0.60-1.17)		0.838	0.600	-	1.170	
Total cholesterol (mg/dL)†	0.93 (0.84-1.02)	0.1243	0.925	0.837	-	1.022	0.124
Body mass index (kg/m^2)†	1.04 (0.94-1.14)	0.4809	1.036	0.939	-	1.142	0.481
Physical activity (total MET h/wk)†	0.93 (0.83-1.04)	0.1957	0.927	0.827	-	1.040	0.195
Smoking status (reference: never)		0.0276					0.029
Current	1.15 (0.84-1.56)		1.145	0.843	-	1.556	
Former	1.34 (1.08-1.66)		1.336	1.078	-	1.656	
Congestive heart failure	3.28 (2.47-4.36)	< .0001	3.280	2.468	-	4.356	<0.001
Any cardiovascular disease	1.94 (1.56-2.43)	< .0001	1.943	1.556	-	2.426	<0.001

* Study geographic center was also included in the multivariable model, but their ORs were omitted from this table.

** For categorical independent variables., p-values for calculated results are Wald tests of hypotheses that impact of categories of individual variables were zero.

***** As discussed in text, the published article reports these results as being for FEMALE subjects. Analysis indicates that published results are for MALE subjects.**

† Odds ratios for continuous variables are for 1-SD increase.

‡ Odds ratios represent the multivariable associations of the individual variables with atrial fibrillation.

Appendix A

PUBLISHED ARTICLE

Soliman EZ, Prineas RJ, Go AS, Xie D, Lash JP, Rahman M, Ojo A, Teal VL, Jensvold NG, Robinson NL, Dries DL, Bazzano L, Mohler ER, Wright JT, Feldman HI; Chronic Renal Insufficiency Cohort (CRIC) Study Group. Chronic kidney disease and prevalent atrial fibrillation: the Chronic Renal Insufficiency Cohort (CRIC). Am Heart J. 2010 Jun;159(6):1102-7.

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Chronic kidney disease and prevalent atrial fibrillation: The Chronic Renal Insufficiency Cohort (CRIC)

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Background The epidemiology of atrial fibrillation (AF) has been mainly investigated in patients with end-stage renal disease, with limited data on less advanced chronic kidney disease (CKD) stages.

Methods A total of 3,267 adult participants (50% non-Hispanic blacks, 46% women) with CKD from the Chronic Renal Insufficiency Cohort were included in this study. None of the study participants had been on dialysis. Those with self-identified race/ethnicity other than non-Hispanic black or white (n = 323) or those without electrocardiographic data (n = 22) were excluded. Atrial fibrillation was ascertained by a 12-lead electrocardiogram and self-report. Age-, sex-, and race/ethnicity-specific prevalence rates of AF were estimated and compared between subgroups. Cross-sectional associations and correlates with prevalent AF were examined using unadjusted and multivariable-adjusted logistic regression analysis.

Results The mean estimated glomerular filtration rate was 43.6 (±13.0) mL/(min 1.73 m^2). Atrial fibrillation was present in 18% of the study population and in >25% of those ≥70 years old. In multivariable-adjusted models, 1-SD increase in age (11 years) (odds ratio 1.27, CI 95% 1.13-1.43, $P < .0001$), female sex (0.80, 0.65-0.98, $P = .0303$), smoking (former vs never) (1.34, 1.08-1.66, $P = .0081$), history of heart failure (3.28, 2.47-4.36, $P < .001$), and history of cardiovascular disease (1.94, 1.56-2.43, $P < .0001$) were significantly associated with AF. Race/ethnicity, hypertension, diabetes, body mass index, physical activity, education, high-sensitivity C-reactive protein, total cholesterol, and alcohol intake were not significantly associated with AF. An estimated glomerular filtration rate <45 mL/(min 1.73 m^2) was associated with AF in an unadjusted model (1.35, 1.13-1.62, $P = .0010$), but not after multivariable adjustment (1.12, 0.92-1.35, $P = .2710$).

Conclusions Nearly 1 in 5 participants in Chronic Renal Insufficiency Cohort, a national study of CKD, had evidence of AF at study entry, a prevalence similar to that reported among patients with end-stage renal disease and 2 to 3 times of that reported in the general population. Risk factors for AF in this CKD population do not mirror those reported in the general population. (Am Heart J 2010;159:1102-7.)

Atrial fibrillation (AF) is the most common sustained arrhythmia in the general population. More than 2.3 million Americans have AF, and the number of cases is expected to rise to 5.6 million by 2050.[1] Atrial fibrillation is one of the strongest risk factors for ischemic stroke and an independent predictor of death.[2-6] Whereas AF prevalence in the general population ranges from 1% to 8%[7-9] depending on age and method of AF detection, the estimated prevalence of AF among patients with end-stage renal disease (ESRD) has been reported to be between 13% and 23%.[10-13] Because >26 million US adults have chronic kidney disease (CKD),[14] understanding the prevalence and correlates of AF has important public health, epidemiologic, and clinical implications. Atrial fibrillation and CKD share several common risk factors (eg, hypertension, diabetes, preexisting cardiovascular

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disease, obesity, metabolic syndrome).[6,10,12,15-20] Although a high prevalence of AF has been demonstrated in ESRD, there are limited data on the prevalence and correlates of AF in less severe CKD, which is substantially more common than ESRD.[14] Therefore, we examined the prevalence and correlates of AF in a large, diverse cohort of adults with CKD enrolled in the Chronic Renal Insufficiency Cohort (CRIC) study, a multiracial national US prospective study examining risk factors for the progression of kidney disease and cardiovascular disease in CKD patients.

Methods

Study population

The CRIC study is a prospective cohort of 3,612 participants with CKD. The study design and methods[21] as well as the baseline cohort characteristics[22] have been described elsewhere. Briefly, 7 clinical centers recruited adults who were aged 21 to 74 years and had CKD (but were not on dialysis) using age-based estimated glomerular filtration rate(eGFR) inclusion criteria (eGFR of 20 to 70, 60, or 50 mL/[min 1.73 m^2] for age ranges 21-44, 45-64 and 65-74 years, respectively). Informed consent was obtained from all participants. Participants with self-identified race/ethnicity other than non-Hispanic black or non-Hispanic white (169 Hispanics and 154 others) or those without electrocardiographic (ECG) data (n = 22) were excluded from this analysis. After all exclusions, the final analytic sample included 3,267 non-Hispanic black and non-Hispanic white participants.

Ascertainment of AF

AF was identified in CRIC study from 2 sources: (1) ECGs recorded during the study's baseline visit and (2) participants' responses to a question about history of AF: "Have you ever been diagnosed with or has a doctor or other health professional ever told you that you have atrial fibrillation?" Standard 12-lead ECGs were recorded in all participants by strictly standardized procedures using identical ECG equipment (GE MAC 1200; GE Medical Systems, Milwaukee, WI). The digitally recorded ECGs stored in the ECG machines were transmitted regularly over analogue phone lines to the CRIC ECG Reading Center located at Wake Forest University, Winston-Salem, NC, for analysis using Minnesota ECG classification.[23] In this analysis, we defined *AF* as either presence of AF in the study baseline ECGs or an affirmative response to the AF question.

Other clinical variables

At the baseline visit, data on sociodemographic characteristics, medical history, lifestyle behaviors, current medications, and anthropometric measures (eg, height and weight) were obtained. Levels of physical activity were measured based on survey questions regarding different types of activity. Minutes of activity were summed for each discrete activity type, converted to hours for ease of presentation, and multiplied by metabolic equivalent (MET) level.[24,25] Participants who report drinking alcohol more than once a month during the 12 months preceding the baseline visit were classified as alcohol drinkers. History of chronic heart failure and history of cardiovascular disease (angina, myocardial infarction, or coronary revascularization) were collected from the medical history questionnaire completed at the baseline visit. Standardized blood pressure measurements were obtained using a previously validated protocol[26] and calibrated sphygmomanometers.[27] *Hypertension* was defined as systolic blood pressure ≥140 mm Hg, diastolic blood pressure ≥90 mm Hg, or self-reported use of antihypertensive medications.[28] *Diabetes* was defined as a fasting glucose ≥126 mg/dL, random glucose ≥200 mg/dL, or use of insulin or other antidiabetic medication.[29] Serum creatinine was measured at the University of Pennsylvania laboratory and calibrated based on standard measurements made from the Cleveland Clinic Foundation laboratory in Cleveland, OH.[30] Estimated glomerular filtration rate was calculated using the simplified Modification of Diet in Renal Disease equation.[31] Other blood assays such as cholesterol, serum uric acid, and high-sensitivity C-reactive protein (hs-CRP) were conducted in the CRIC Study's central laboratory.

Statistical analysis

Frequency distributions of all variables were first inspected to identify anomalies and outliers possibly caused by measurement artifacts. Continuous data were described by their mean and SD; and categorical data, as proportions (percentage). The prevalence of AF at the study baseline was examined by eGFR (dichotomized using 45 mL/[min 1.73 m^2] as a cutoff point), age, sex, and race/ethnicity. A series of logistic regression analysis was used to identify correlates of AF. Our approach was first to examine unadjusted associations between individual sociodemographic and clinical variables with AF. Next, we examined the same variables after adjustment for age, sex, race/ethnicity, and study center. Finally, we conducted a final multivariable model that included all the variables that were significantly associated with AF after adjustment for the demographic variables. Age, sex race/ethnicity, and study center were forced into the final model. A 2-tailed $P < .05$ was considered significant at α level of 0.05. SAS version 9.1 (SAS Institute, Inc, Cary, NC) was used in all analyses.

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Results

Among the 3,267 participants included in this analysis, 1,627 were non-Hispanic white and 1,640 were non-Hispanic black (Table I). Mean age was 58.6 years, and 46% were women. More than 86% were hypertensive, 45% were diabetic, and 34% had a self-reported history of cardiovascular disease. The mean eGFR was 43.6 ±13.4 mL/(min 1.73 m^2); approximately 55% of the study population had an eGFR <45 mL/(min 1.73 m^2).

AF was present in 602 (18%) participants (Table II). Most AF cases were detected by self report. Electrocardiographically-detected AF was present in only 40 participants.

Table I. Characteristics of the study population

	Mean (SD) or n (%). N = 3267
Age (y)	58.55 (10.81)
Sex (male)	1775 (54%)
Race/ethnicity (non-Hispanic black)	1640 (50%)
Education	
Less than high school grad	523 (16%)
High school grad	649 (20%)
Post–high school education	1028 (31%)
College graduate	606 (19%)
Postgraduate degree	461 (14%)
Smoker	
Current	470 (14%)
Former	1392 (43%)
Never	1405 (43%)
Alcohol use (drinkers)	1310 (40%)
Total physical activity (MET h/wk)	204.6 (148.33)
Hypertension	2807 (86%)
Diabetes	1486 (45%)
Congestive heart failure	328 (10%)
Cardiovascular Disease	1125 (34%)
eGFR (mL/[min 1.73 m^2])	43.6 (13.4)
Participants with eGFR <45 mL/(min 1.73 m^2)	1795 (55%)
Body mass index (kg/m^2)	32.31 (8.0)
Total cholesterol (mg/dL)	182.8 (43.8)
Uric acid (mg/dL)	7.4 (1.9)
hs-CRP (mg/dL)	5.8 (10.2)

Participants with eGFR <45 mL/(min 1.73 m^2) had a higher prevalence of AF compared with participants with eGFR ≥45 mL/(min 1.73 m^2) (20.4% vs 16.0%, $P = .001$). When age was categorized into decades (<40, 40-49, 50-59, 60-69, ≥70 years), the prevalence of AF across decades was significantly greater with higher age (7.9%, 12.3%, 16.9%, 21.0%, and 25.5%, respectively; $P < .0001$). There was no statistically significant difference in the prevalence of AF between women and men (18.6% vs 18.3%, $P = .78$). Blacks had a significantly higher prevalence of AF compared with whites (20.1% vs 16.8%, $P = .02$).

In univariate analyses, older age, eGFR <45 mL/(min 1.73 m^2), black race, higher levels of total cholesterol, higher body mass index, lack of physical activity, smoking, drinking, diabetes, history of heart failure, and history of cardiovascular disease were significantly associated with a higher odds of prevalent AF. On the other hand, sex, uric acid, hs-CRP, and hypertension were not significantly associated with AF in the sample. Compared with having high school education, less than high school education was associated with a higher prevalence of AF, whereas postgraduate education was associated with a lower prevalence of AF. After adjustment for age, sex, race, and study centers, the strength of associations between AF with eGFR level, diabetes, educational attainment, body mass index, and drinking status became attenuated (Table III).

In the final multivariable model, only older age (per 1-SD increase) (odds ratio [OR] 1.27, 95% CI 1.13-1.43), female sex (OR 0.80, 95% CI 0.65-0.98), smoking (former vs never) (OR 1.34, 95% CI 1.08-1.66), history of heart failure (OR 3.28, 95% CI 2.47-4.36), and history of cardiovascular disease (OR 1.94, 95% CI 1.56-2.43) were significantly associated with AF (Table IV).

Table II. Prevalence of AF by eGFR, age, sex, and race/ethnicity

	N = 3267	AF n (%)	*P* value
All population	3267	602 (18.4%)	
eGFR (mL/[min 1.73 m^2])			.0010
<45	1795	367 (20.4%)	
≥45	1472	235 (16.0%)	
Age (y)			<.0001
<40	239	19 (7.9%)	
40-49	398	49 (12.3%)	
50-59	958	162 (16.9%)	
60-69	1217	256 (21.0%)	
≥70	455	116 (25.5%)	
Sex			.7807
Male	1775	324 (18.3%)	
Female	1492	278 (18.6%)	
Race/ethnicity			.0156
Non-Hispanic white	1627	273 (16.8%)	
Non-Hispanic black	1640	329 (20.1%)	

Discussion

This study addressed the prevalence and correlates of prevalent AF in a well-defined multiracial cohort of US individuals with CKD who are not receiving long-term dialysis treatments. Most of the previous studies that examined associations between AF and CKD were conducted either in ESRD patients on dialysis or in a general population sample, or were restricted to a single racial/ethnic group.[10-13,32,33] Our study revealed 3 main findings. First, the prevalence of AF was high in this sample of participants with mild-moderate CKD, affecting nearly 1 in 5 persons overall and >1 in 4 participants ≥70 years old. This prevalence estimate is 2- to-3-fold higher than estimates from the general population using AF ascertainment methods similar to those used in our study.[8] In the REGARDS study, a national US cohort study with >30,000 participants, the prevalence of AF was only 7.8% despite the fact that REGARDS participants were approximately 7 years older than CRIC Study participants.

Second, the high prevalence of AF observed in our study sample is similar to estimates among patients with ESRD receiving long-term dialysis, which range from 13% to 23%.[10-13] This finding suggests that processes influencing the development of AF likely occur early in the course of CKD. Interestingly, when examining eGFR level and prevalent AF, the graded association with lower eGFR was no longer significant after adjustment for age, sex, race/ethnicity, and study center. Similar results were obtained when eGFR was modeled as a continuous variable (1-SD increase) or categorized into different strata (data not shown). Because CKD is substantially

Table III. Unadjusted and demographic-adjusted associations with AF in logistic regression analysis

	Model 1: unadjusted		Model 2: demographic adjusted	
	OR (95% CI)*	*P* value	OR (95% CI)†	*P* value
Age (y)‡	1.03 (1.02-1.04)	<.0001	1.46 (1.32-1.62)	<.0001
Female sex	0.98 (0.82-1.16)	.7805	0.90 (0.75-1.09)	.2875
Race (non-Hispanic black vs non-Hispanic white)	1.24 (1.04-1.49)	.0157	1.25 (1.03-1.52)	.0228
Education (reference: post–high school education)				.0452
Less than high school graduate	1.40 (1.09-1.80)	.0086	1.13 (0.86-1.47)	
High school graduate	0.86 (0.67-1.12)	.2673	0.78 (0.60-1.01)	
College graduate	0.80 (0.61-1.04)	.0990	0.85 (0.65-1.13)	
Postgraduate degree	0.69 (0.51-0.93)	.0162	0.73 (0.53-1.00)	
Total cholesterol (mg/dL)‡	1.00 (0.99-1.00)	.0006	0.85 (0.77-0.94)	.0014
Uric acid (mg/dL) ‡	1.04 (1.00-1.09)	.0716	1.01 (0.92-1.11)	.8366
eGFR (mL/[min 1.73 m^2]) (eGFR<45 vs ≥45)	1.35 (1.13-1.62)	.0010	1.12 (0.92-1.35)	.2710
hs-CRP (mg/dL)‡	1.00 (1.00-1.01)	.2751	1.02 (0.94-1.12)	.5922
Body mass index (kg/m^2)‡	1.01 (1.00-1.02)	.0398	1.09 (1.00-1.20)	.0599
Physical activity (total MET h/wk)‡	1.00 (1.00-1.00)	<.0001	0.85 (0.76-0.95)	.0056
Smoking status (reference: never)				.0001
Current	1.38 (1.04-1.82)	.0237	1.30 (0.98-1.73)	
Former	1.78 (1.46-2.16)	<.0001	1.56 (1.27-1.91)	
Alcohol use (drinker vs nondrinkers)	0.75 (0.62-0.90)	.0022	0.87 (0.71-1.06)	.1678
Hypertension	1.18 (0.91-1.54)	.2201	0.83 (0.63-1.11)	.2036
Diabetes	1.25 (1.05-1.49)	.0139	1.11 (0.92-1.33)	.2828
Congestive heart failure	5.63 (4.43-7.14)	<.0001	5.20 (4.06-6.67)	<.0001
Any cardiovascular disease	3.48 (2.90-4.17)	<.0001	3.06 (2.53-3.71)	<.0001

*Odds ratios represent unadjusted association of individual variables in the first column with AF.
†Odds ratios represent age-, sex-, race/ethnicity-, and clinical center–adjusted associations of the individual variables in the first column with AF each variable.
‡Odds ratios for continuous variables are for 1-SD increase.

Table IV. Multivariable-adjusted associations with AF in logistic regression analysis*

	OR (95% CI)*	*P* value
Age (y)	1.27 (1.13-1.43)	<.0001
Female sex	0.80 (0.65-0.98)	.0303
Race (non-Hispanic black vs non-Hispanic white)	1.07 (0.86-1.34)	.5283
Education (reference: post–high school education)		.0662
Less than high school graduate	1.14 (0.86-1.52)	
High school graduate	0.76 (0.58-1.01)	
College graduate	1.03 (0.77-1.37)	
Postgraduate degree	0.84 (0.60-1.17)	
Total cholesterol (mg/dL)	0.93 (0.84-1.02)	.1243
Body mass index (kg/m^2)	1.04 (0.94-1.14)	.4809
Physical activity (total MET h/wk)	0.93 (0.83-1.04)	.1957
Smoking status (reference: never)		.0276
Current	1.15 (0.84-1.56)	
Former	1.34 (1.08-1.66)	
Congestive heart failure	3.28 (2.47-4.36)	<.0001
Any cardiovascular disease	1.94 (1.56-2.43)	<.0001

Study geographic center was also in the multivariable model, but the ORs were omitted from the table.
*Odds ratios represent the multivariable associations of the individual variables that were significant in the demographic-adjusted models.

more common than ESRD in the United States, these findings are of particular significance from clinical and public health perspectives.

Third, risk factors for AF in this CKD population do not mirror those reported in the general population. In our multivariable logistic regression analysis, although selected risk factors for AF in the general population were independent correlates in our sample (ie, older age, heart failure, other cardiovascular disease), others were not (ie, race/ethnicity, hypertension, diabetes, body mass index, physical activity, education, hs-CRP, total cholesterol, and alcohol intake). These findings suggest the need for further investigation of the risk factors for AF in the setting of CKD, as various AF risk prediction models developed in the general population[34] may not apply.

Of interest, we found that black race was significantly associated with a higher prevalence of AF in crude analyses, but was no longer a significant correlate after adjustment for other covariates. Although this observation contrasts with the reported higher prevalence of AF among whites in the general population,[1,9,35-37] our finding is consistent with the high rate of stroke among blacks,[38] the high prevalence of AF and stroke risk factors among blacks, and the strong association between AF and stroke.[39-42] The observed prevalence of ethnic/racial distribution of AF in our study is consistent with the possibility that studies of the general population may have disproportionately underdiagnosed AF in nonwhite populations.[7,8,43] Underdiagnosis of AF in blacks might be a result of black having a higher prevalence of paroxysmal or asymptomatic AF, the difficult-to-detect

patterns of AF.[7,8] Future longitudinal evaluation of incident AF is needed among large, diverse populations with CKD to provide further clarification of the racial/ethnic epidemiology of AF in the setting of CKD.

The strong and unique association of AF with CKD could be explained by the fact that AF and CKD share a number of risk factors.[6,10,12,15-20,32] Although mechanical stress on atria due to volume overload could be the mediating factor that leads to development of AF in patients with ESRD, this may not be the case in less advanced stages. One possible mechanism for a higher prevalence of AF in early stages of CKD could be related to inflammation.[36] Elevated levels of inflammatory markers have been reported in CKD even in its early stages,[44,45] inflammatory markers predict progression of kidney dysfunction,[46,47] and inflammation plays a significant role in the pathogenesis of AF.[48,49] Nevertheless, the negative association between high hs-CRP (an inflammatory marker) with AF in our study is not concordant with such an explanation. It is not clear, however, whether other inflammatory markers other than hs-CRP have stronger associations with AF or not, a possibility that needs testing.

Our results should be interpreted in the context of a number of limitations. As a cross-sectional analysis, we cannot establish a causal inference between CKD and AF or the temporal sequence of the 2 conditions. In addition, residual confounding might have affected some of the associations in the multivariable models. However, we adjusted for many of the most common risk factors for AF. Furthermore, we controlled for the geographic location of the study clinical centers (7 clinical centers) to adjust for possible differences in unmeasured characteristics of the participants related to the residence location of care.

Standard 12-lead ECG, which was 1 of the 2 AF ascertainment methods in our study, has a major limitation in detecting paroxysmal AF, which is common among CKD patients.[11,50] We supplemented ECG data with self-reported AF to increase the sensitivity of AF ascertainment. Defining AF cases as "the presence of AF by self report and/or ECG" has been shown as a more sensitive method to detect AF.[8] Self-report is a common method for AF ascertainment in epidemiologic studies, and it is known that the associations of morbidity and mortality with self-reported AF are similar to those with ECG-detected AF.[37,51] Having said that, because we could not validate the self-reported AF, there could be some misclassification of AF using this method, which is another study limitation.

Although it would be interesting to stratify AF correlates by the method of AF detection (ECG vs self-report), the small number of AF detected by ECG alone did not allow us to make appropriate inferences because of statistical power considerations. Despite these limitations, this analysis provided a number of significant findings that shed light on the epidemiology of AF in patients with pre-ESRD.

In conclusion, the prevalence of AF in patients with less advanced CKD is very high and is similar to that observed in patients with ESRD. Many known predictors of AF observed in the general population were not significantly correlated with AF in the setting of CKD. These findings emphasize the underappreciated clinical and public health burden of AF among individuals with CKD and the need to delineate additional predictors of developing AF in CKD to provide more robust AF risk prediction models for patients with kidney dysfunction.

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Correction

In the article "Chronic kidney disease and prevalent atrial fibrillation: The Chronic Renal Insufficiency Cohort (CRIC)" (Am Heart J 2010:159;1102-7), the authors would like to correct errors in their article. The errors appear in the Methods section and in Table III.

The atrial fibrillation (AF) question mentioned under AF Ascertainment should be corrected as follows: "Have you ever been diagnosed with or has a doctor or other health professional ever told you that you have atrial fibrillation or atrial flutter (an irregular heart rhythm)?" The published text stops at "atrial fibrillation" with omission of "an atrial flutter (irregular heart rhythm)." The authors write: "While this distinction may not have had major influence on our estimated prevalence of AF, it is possible that the lack of specificity of the question increased the reported prevalence beyond what it would have been if the question had only asked about AF."

The authors continue: "The odds ratios for the continuous variables in the first column of Table III are per 1-unit increase not per 1-standard deviation (1-SD) as in the rest of the table. The ORs and 95% confidence interval for 1-SD increase in age (year), total cholesterol (mg/dL), uric acid (mg/dL), hs-CRP (mg/dL), body mass index (kg/m^2), and physical activity (total MET h/wk) should be 1.44 (1.30-1.59), 0.85 (0.77-0.93), 1.09 (0.99-1.19), 1.05 (0.96-1.13), 1.09 (1.00-1.19), and 0.77 (0.69-0.86), respectively. The *P* values associated with these ORs are stated correctly in the table. We apologize for any confusion or inconvenience this has caused."

APPENDIX B

STATA output for Analyses

```
-------------------------------------------------------------------------------
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Label_Run_Output.log
  log type:  text
 opened on:  16 Mar 2011, 14:42:44

.
. clear all

. *pause on
.
. use Z:\CRIC\AnalysisData\MS037\m37_20100104.dta, clear

. *describe
. #delimit ;
delimiter now ;
. label define  yesno  0"No" 1"Yes";

.  label values  mirevasc chf anycvd alcoh_use hypertension hichol diabetes alcoh37 yesno;

. describe mirevasc chf anycvd alcoh_use hypertension hichol diabetes alcoh37;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
mirevasc        byte   %8.0g       yesno      myocardial infarction/prior revasc (y/n)
chf             byte   %8.0g       yesno      congestive heart failure (y/n)
anycvd          byte   %8.0g       yesno      cardio-vascular disease (y/n)
alcoh_use       byte   %8.0g       yesno      alcohol use (medhx)
hypertension    byte   %8.0g       yesno      hypertension (y/n)
hichol          byte   %8.0g       yesno      high cholesterol
diabetes        byte   %8.0g       yesno      diabetes
alcoh37         byte   %8.0g       yesno      alcohol use

. tab1 mirevasc chf anycvd alcoh_use hypertension hichol diabetes alcoh37;

-> tabulation of mirevasc

 myocardial |
infarction/ |
      prior |
     revasc |
      (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      2,537       77.66       77.66
        Yes |        730       22.34      100.00
------------+-----------------------------------
      Total |      3,267      100.00
```

```
-> tabulation of chf

 congestive |
      heart |
    failure |
      (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      2,939       89.96       89.96
        Yes |        328       10.04      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of anycvd

cardio-vasc |
       ular |
    disease |
      (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      2,142       65.56       65.56
        Yes |      1,125       34.44      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of alcoh_use

alcohol use |
    (medhx) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      1,155       35.35       35.35
        Yes |      2,112       64.65      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of hypertension

hypertensio |
    n (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |        458       14.03       14.03
        Yes |      2,807       85.97      100.00
------------+-----------------------------------
      Total |      3,265      100.00

-> tabulation of hichol

       high |
cholesterol |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |        619       18.95       18.95
        Yes |      2,648       81.05      100.00
------------+-----------------------------------
      Total |      3,267      100.00
```

```
-> tabulation of diabetes

   diabetes |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      1,781       54.51       54.51
        Yes |      1,486       45.49      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of alcoh37

alcohol use |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      1,957       59.90       59.90
        Yes |      1,310       40.10      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. *pause;
. label define  sex  1"Male" 2"Female" 98"Other";

.  label values sex sex;

. describe sex;

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------------------
sex             byte   %8.0g       sex        sex

. tab sex;

        sex |      Freq.     Percent        Cum.
------------+-----------------------------------
       Male |      1,775       54.33       54.33
     Female |      1,492       45.67      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. label define  race_ethnicity_cat2a  1"Non-Hispanic White" 2"Non-Hispanic
>   Black" 3"Hispanic" 4"Other";

.  label values race_ethnicity_cat2 race_ethnicity_cat2a;

. describe race_ethnicity_cat2;

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------------------
race_ethnicit~2 byte   %20.0g      race_ethnicity_cat2a
                                               race ethnicity category 2
```

```
. tab race_ethnicity_cat2;

      race ethnicity |
          category 2 |      Freq.     Percent        Cum.
---------------------+-----------------------------------
  Non-Hispanic White |      1,627       49.80       49.80
Non-Hispanic   Black |      1,640       50.20      100.00
---------------------+-----------------------------------
               Total |      3,267      100.00

. *pause;
. label define  edu_cat_1a
>   1"0-6th grade"
>   2"7-12 grade, no diploma"
>   3"HS grad or equiv"
>   4"Tech-Voc degree"
>   5"Some college, no degree"
>   6"College grad"
>   7"Prof or grad degree";

.  label values edu_cat_1 edu_cat_1a;

. describe edu_cat_1;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
edu_cat_1       byte   %23.0g      edu_cat_1a
                                               education category 1(categorical)

. tab edu_cat_1;

     education category |
         1(categorical) |      Freq.     Percent        Cum.
------------------------+-----------------------------------
            0-6th grade |         27        0.83        0.83
 7-12 grade, no diploma |        496       15.18       16.01
       HS grad or equiv |        649       19.87       35.87
        Tech-Voc degree |        172        5.26       41.14
Some college, no degree |        856       26.20       67.34
           College grad |        606       18.55       85.89
    Prof or grad degree |        461       14.11      100.00
------------------------+-----------------------------------
                  Total |      3,267      100.00

. *pause;
. label define  age_cat_1a
>   1"< 30"
>   2"30-39"
>   3"40-49"
>   4"50-59"
>   5"60-69"
>  6"70+";

.  label values  age_cat_1 age_cat_1a;
```

```
. describe age_cat_1;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
age_cat_1       byte   %8.0g       age_cat_1a
                                               age category 1

. tab age_cat_1;

        age |
 category 1 |      Freq.     Percent        Cum.
------------+-----------------------------------
       < 30 |         49        1.50        1.50
      30-39 |        190        5.82        7.32
      40-49 |        398       12.18       19.50
      50-59 |        958       29.32       48.82
      60-69 |      1,217       37.25       86.07
        70+ |        455       13.93      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. *pause;
. label define  age_cat_2a
>   1"21-44"
>   2"45-64"
>   3"65+"
>   9"Total ???";

.  label values age_cat_2 age_cat_2a;

. describe age_cat_2;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
age_cat_2       byte   %9.0g       age_cat_2a
                                               age category 2

. tab age_cat_2;

        age |
 category 2 |      Freq.     Percent        Cum.
------------+-----------------------------------
      21-44 |        410       12.55       12.55
      45-64 |      1,885       57.70       70.25
        65+ |        972       29.75      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. *pause;
. label define  smoke100a  0"Non-Smoker" 1"Smoker";

.  label values smoke100 smoke100a;

. describe smoke100;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
smoke100        byte   %10.0g      smoke100a
                                               smoked 100 cigarettes

. tab smoke100;
```

```
 smoked 100 |
 cigarettes |      Freq.     Percent        Cum.
------------+-----------------------------------
 Non-Smoker |      1,405       43.01       43.01
     Smoker |      1,862       56.99      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. label define  smokenow  0"Not current smoker" 1"Yes current smoker";

.  label values smokenow smokenow;

. describe smokenow;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
smokenow        byte   %18.0g      smokenow   current smoker

. tab smokenow;

    current smoker |      Freq.     Percent        Cum.
-------------------+-----------------------------------
Not current smoker |      2,797       85.61       85.61
Yes current smoker |        470       14.39      100.00
-------------------+-----------------------------------
             Total |      3,267      100.00

. label define  egfr_roche_cat_baseline
>   1 "<30" 2 "30-39" 3 "40-49" 4 "50-59" 5 "60+" 9 "Total ???";

.  label values  egfr_roche_cat_baseline  egfr_roche_cat_baseline;

. describe egfr_roche_cat_baseline;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
egfr_roche_ca~e byte   %9.0g       egfr_roche_cat_baseline
                                               egfr category baseline

. tab egfr_roche_cat_baseline;

       egfr |
   category |
   baseline |      Freq.     Percent        Cum.
------------+-----------------------------------
        <30 |        579       17.72       17.72
      30-39 |        766       23.45       41.17
      40-49 |        889       27.21       68.38
      50-59 |        669       20.48       88.86
        60+ |        364       11.14      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. label define  egfr_roche_cat1a  1"<45" 2"45+";

.  label values  egfr_roche_cat1 egfr_roche_cat1a;

. describe egfr_roche_cat1 ;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
egfr_roche_cat1 byte   %8.0g       egfr_roche_cat1a
```

```
                                                egfr category 1

. tab egfr_roche_cat1 ;

       egfr |
 category 1 |      Freq.     Percent        Cum.
------------+-----------------------------------
        <45 |      1,795       54.94       54.94
        45+ |      1,472       45.06      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. label define  egfr_roche_cat4a  1"<15" 2"15-29" 3"30-59" 4"60+";

.  label values  egfr_roche_cat4 egfr_roche_cat4a;

. describe egfr_roche_cat4;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
egfr_roche_cat4 byte   %8.0g       egfr_roche_cat4a
                                                egfr category 4

. tab egfr_roche_cat4;

       egfr |
 category 4 |      Freq.     Percent        Cum.
------------+-----------------------------------
        <15 |          4        0.12        0.12
      15-29 |        575       17.60       17.72
      30-59 |      2,324       71.14       88.86
        60+ |        364       11.14      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. label define  bmi_cat_2a
>   1"<25 (UnderW/Normal)"
>   2"25-29 (OverW)"
>   3"30+ (Obese)";

.  label values bmi_cat_2 bmi_cat_2a;

. describe bmi_cat_2;

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------------------
bmi_cat_2       byte   %19.0g      bmi_cat_2a
                                                bmi category 2

. tab bmi_cat_2;

     bmi category 2 |      Freq.     Percent        Cum.
--------------------+-----------------------------------
<25 (UnderW/Normal) |        452       14.18       14.18
      25-29 (OverW) |        894       28.04       42.22
        30+ (Obese) |      1,842       57.78      100.00
--------------------+-----------------------------------
              Total |      3,188      100.00

. #delimit cr
delimiter now cr
.
. save "Z:\CRIC\AnalysisData\MS037\m37_w_Labels.dta", replace
```

```
file Z:\CRIC\AnalysisData\MS037\m37_w_Labels.dta saved

.
end of do-file

. log close
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Label_Run_Output.log
  log type:  text
 closed on:  16 Mar 2011, 14:46:41
-------------------------------------------------------------------------------
```

```
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Analysis_1_Output.log
  log type:  text
 opened on:  16 Mar 2011, 15:37:36

. clear all

. pause on

. set linesize 180

.
. use "Z:\CRIC\AnalysisData\MS037\m37_w_Labels.dta", clear

. tab  edu_cat_1 edu

   education category |                            edu
       1(categorical) |         1          2          3          4          5 |     Total
----------------------+---------------------------------------------------------+----------
          0-6th grade |        27          0          0          0          0 |        27
7-12 grade, no diplom |       496          0          0          0          0 |       496
     HS grad or equiv |         0        649          0          0          0 |       649
      Tech-Voc degree |         0          0        172          0          0 |       172
Some college, no degr |         0          0        856          0          0 |       856
         College grad |         0          0          0        606          0 |       606
  Prof or grad degree |         0          0          0          0        461 |       461
----------------------+---------------------------------------------------------+----------
                Total |       523        649      1,028        606        461 |     3,267


. label define edu 1"<HS" 2"HSG" 3"Post HS" 4"Col Grad" 5"Postgrad"

. label values edu edu

. tab  edu_cat_1 edu

   education category |                            edu
       1(categorical) |       <HS        HSG    Post HS   Col Grad   Postgrad |     Total
----------------------+---------------------------------------------------------+----------
          0-6th grade |        27          0          0          0          0 |        27
7-12 grade, no diplom |       496          0          0          0          0 |       496
     HS grad or equiv |         0        649          0          0          0 |       649
      Tech-Voc degree |         0          0        172          0          0 |       172
Some college, no degr |         0          0        856          0          0 |       856
         College grad |         0          0          0        606          0 |       606
  Prof or grad degree |         0          0          0          0        461 |       461
----------------------+---------------------------------------------------------+----------
                Total |       523        649      1,028        606        461 |     3,267


.
. tab smoke100 smokenow

smoked 100 |    current smoker
cigarettes | Not curre  Yes curre |     Total
-----------+----------------------+----------
Non-Smoker |     1,405          0 |     1,405
    Smoker |     1,392        470 |     1,862
-----------+----------------------+----------
     Total |     2,797        470 |     3,267
```

```
. tab smoker

     smoker |      Freq.     Percent        Cum.
------------+-----------------------------------
          1 |        470       14.39       14.39
          2 |      1,392       42.61       56.99
          3 |      1,405       43.01      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. label define smoker 1"Current" 2"Former" 3"Never"

. label values smoker smoker

.
. label var totalmetsum "Total Physical Activity (MET h/wk)"

.
. generate egfr_lt_45 = .
(3267 missing values generated)

. replace egfr_lt_45 = 1 if egfr_roche < 45
(1795 real changes made)

. replace egfr_lt_45 = 0 if egfr_roche >= 45
(1472 real changes made)

. * tab  egfr_lt_45
. label var egfr_lt_45 "eGFR < 45"

.
. tab1 sex  race_ethnicity_cat2   edu smoker alcoh37  hypertension  diabetes chf anycvd
egfr_lt_45

-> tabulation of sex

        sex |      Freq.     Percent        Cum.
------------+-----------------------------------
       Male |      1,775       54.33       54.33
     Female |      1,492       45.67      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of race_ethnicity_cat2

      race ethnicity |
          category 2 |      Freq.     Percent        Cum.
---------------------+-----------------------------------
  Non-Hispanic White |      1,627       49.80       49.80
Non-Hispanic   Black |      1,640       50.20      100.00
---------------------+-----------------------------------
               Total |      3,267      100.00

-> tabulation of edu

        edu |      Freq.     Percent        Cum.
------------+-----------------------------------
        <HS |        523       16.01       16.01
        HSG |        649       19.87       35.87
    Post HS |      1,028       31.47       67.34
   Col Grad |        606       18.55       85.89
   Postgrad |        461       14.11      100.00
------------+-----------------------------------
      Total |      3,267      100.00
```

```
-> tabulation of smoker

     smoker |      Freq.     Percent        Cum.
------------+-----------------------------------
    Current |        470       14.39       14.39
     Former |      1,392       42.61       56.99
      Never |      1,405       43.01      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of alcoh37

alcohol use |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      1,957       59.90       59.90
        Yes |      1,310       40.10      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of hypertension

hypertensio |
    n (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |        458       14.03       14.03
        Yes |      2,807       85.97      100.00
------------+-----------------------------------
      Total |      3,265      100.00

-> tabulation of diabetes

   diabetes |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      1,781       54.51       54.51
        Yes |      1,486       45.49      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of chf

 congestive |
      heart |
    failure |
      (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      2,939       89.96       89.96
        Yes |        328       10.04      100.00
------------+-----------------------------------
      Total |      3,267      100.00

-> tabulation of anycvd

cardio-vasc |
       ular |
    disease |
      (y/n) |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |      2,142       65.56       65.56
        Yes |      1,125       34.44      100.00
------------+-----------------------------------
      Total |      3,267      100.00
```

```
-> tabulation of egfr_lt_45

  eGFR < 45 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |      1,472       45.06       45.06
          1 |      1,795       54.94      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. summarize age  totalmetsum  egfr_roche  bmi tc  uric_acid  hs_crp

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
         age |      3267    58.55395    10.80797   21.15733   75.15343
 totalmetsum |      3259    204.6259    148.3339          0    1692.25
  egfr_roche |      3267    43.62454    13.37062   7.004488   113.9882
         bmi |      3259    32.31229    8.039422   14.59011   88.01366
          tc |      3258    182.8432    43.83615         76        571
-------------+--------------------------------------------------------
   uric_acid |      3220    7.402422    1.906139        1.9       15.2
      hs_crp |      3257    5.799183    10.15226        .08        187

.
end of do-file

. exit, clear
```

```
Z:\CRIC\AnalysisData\MS037\Analysis_2_Output.log

      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Analysis_2_Output.log
  log type:  text
 opened on:   6 Apr 2011, 14:22:13

. clear all

. pause on

. set linesize 180

.
. use "Z:\CRIC\AnalysisData\MS037\m37_w_Labels.dta", clear

. *tab  edu_cat_1 edu
. label define edu 1"<HS" 2"HSG" 3"Post HS" 4"Col Grad" 5"Postgrad"

. label values edu edu

. *tab  edu_cat_1 edu
.
. *tab smoke100 smokenow
. *tab smoker
. label define smoker 1"Current" 2"Former" 3"Never"

. label values smoker smoker

.
. label var totalmetsum "Total Physical Activity (MET h/wk)"

.
. generate egfr_lt_45 = .
(3267 missing values generated)

. replace egfr_lt_45 = 1 if egfr_roche < 45
(1795 real changes made)

. replace egfr_lt_45 = 0 if egfr_roche >= 45
(1472 real changes made)

. * tab  egfr_lt_45
. label var egfr_lt_45 "eGFR < 45"

.
. *tab1 sex  race_ethnicity_cat2   edu smoker alcoh37  hypertension  diabetes
chf anycvd egfr_lt_45
. *summarize age  totalmetsum  egfr_roche  bmi tc  uric_acid  hs_crp
.
. tab comp_afib

 ecg and/or |
self report |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |      2,665       81.57       81.57
          1 |        602       18.43      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. tab egfr_lt_45 comp_afib, row chi
```

```
+----------------+
| Key            |
|----------------|
|   frequency    |
| row percentage |
+----------------+

           |    ecg and/or self
           |        report
 eGFR < 45 |         0          1 |     Total
-----------+----------------------+----------
         0 |     1,237        235 |     1,472
           |     84.04      15.96 |    100.00
-----------+----------------------+----------
         1 |     1,428        367 |     1,795
           |     79.55      20.45 |    100.00
-----------+----------------------+----------
     Total |     2,665        602 |     3,267
           |     81.57      18.43 |    100.00

          Pearson chi2(1) =  10.8039   Pr = 0.001

. gen age5=.
(3267 missing values generated)

. replace age5 = 39 if age<40
(239 real changes made)

. replace age5 = 40 if age>= 40 & age < 50
(398 real changes made)

. replace age5 = 50 if age>= 50 & age < 60
(958 real changes made)

. replace age5 = 60 if age>= 60 & age < 70
(1217 real changes made)

. replace age5 = 70 if age>= 70
(455 real changes made)

. tab age5 comp_afib, row chi

+----------------+
| Key            |
|----------------|
|   frequency    |
| row percentage |
+----------------+
```

```
           |    ecg and/or self
           |        report
      age5 |         0          1 |     Total
-----------+----------------------+----------
        39 |       220         19 |       239
           |     92.05       7.95 |    100.00
-----------+----------------------+----------
        40 |       349         49 |       398
           |     87.69      12.31 |    100.00
-----------+----------------------+----------
        50 |       796        162 |       958
           |     83.09      16.91 |    100.00
-----------+----------------------+----------
        60 |       961        256 |     1,217
           |     78.96      21.04 |    100.00
-----------+----------------------+----------
        70 |       339        116 |       455
           |     74.51      25.49 |    100.00
-----------+----------------------+----------
     Total |     2,665        602 |     3,267
           |     81.57      18.43 |    100.00

          Pearson chi2(4) =  49.4509   Pr = 0.000

. tab sex comp_afib, row chi

+----------------+
| Key            |
|----------------|
|   frequency    |
| row percentage |
+----------------+

           |    ecg and/or self
           |        report
       sex |         0          1 |     Total
-----------+----------------------+----------
      Male |     1,451        324 |     1,775
           |     81.75      18.25 |    100.00
-----------+----------------------+----------
    Female |     1,214        278 |     1,492
           |     81.37      18.63 |    100.00
-----------+----------------------+----------
     Total |     2,665        602 |     3,267
           |     81.57      18.43 |    100.00

          Pearson chi2(1) =   0.0775   Pr = 0.781

. tab race_ethnicity_cat2 comp_afib, row chi

+----------------+
| Key            |
|----------------|
|   frequency    |
| row percentage |
+----------------+
```

```
                    |    ecg and/or self
      race ethnicity |        report
          category 2 |         0          1 |     Total
---------------------+----------------------+----------
  Non-Hispanic White |     1,354        273 |     1,627
                     |     83.22      16.78 |    100.00
---------------------+----------------------+----------
Non-Hispanic   Black |     1,311        329 |     1,640
                     |     79.94      20.06 |    100.00
---------------------+----------------------+----------
               Total |     2,665        602 |     3,267
                     |     81.57      18.43 |    100.00

          Pearson chi2(1) =   5.8515   Pr = 0.016

.
.
end of do-file

. log close
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Analysis_2_Output.log
  log type:  text
 closed on:   6 Apr 2011, 14:24:41
```

```
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Table_3a_3b_4_Output_rev1.log
  log type:  text
 opened on:  16 Apr 2011, 21:52:14

. clear all

. *pause on
. set linesize 180

.
. use "Z:\CRIC\AnalysisData\MS037\m37_w_Labels.dta", clear

.
. generate NonHisp_Black = race_ethnicity_cat2

. recode NonHisp_Black (1=0)(2=1)
(NonHisp_Black: 3267 changes made)

. tab race_ethnicity_cat2 NonHisp_Black

      race ethnicity |     NonHisp_Black
          category 2 |         0          1 |     Total
---------------------+----------------------+----------
  Non-Hispanic White |     1,627          0 |     1,627
Non-Hispanic   Black |         0      1,640 |     1,640
---------------------+----------------------+----------
               Total |     1,627      1,640 |     3,267


. generate female = sex

. recode female (2=1)(1=0)
(female: 3267 changes made)

. tab female sex

           |          sex
    female |      Male     Female |     Total
-----------+----------------------+----------
         0 |     1,775          0 |     1,775
         1 |         0      1,492 |     1,492
-----------+----------------------+----------
     Total |     1,775      1,492 |     3,267


. generate male = sex

. recode male (2=0)
(male: 1492 changes made)

. tab male sex

           |          sex
      male |      Male     Female |     Total
-----------+----------------------+----------
         0 |         0      1,492 |     1,492
         1 |     1,775          0 |     1,775
-----------+----------------------+----------
     Total |     1,775      1,492 |     3,267
```

```
.
. *tab  edu_cat_1 edu
. label define edu 1"<HS" 2"HSG" 3"Post HS" 4"Col Grad" 5"Postgrad"

. label values edu edu

. *tab  edu_cat_1 edu
.
. *tab smoke100 smokenow
. *tab smoker
. label define smoker 1"Current" 2"Former" 3"Never"

. label values smoker smoker

.
. label var totalmetsum "Total Physical Activity (MET h/wk)"

.
. generate egfr_lt_45 = .
(3267 missing values generated)

. replace egfr_lt_45 = 1 if egfr_roche < 45
(1795 real changes made)

. replace egfr_lt_45 = 0 if egfr_roche >= 45
(1472 real changes made)

. * tab  egfr_lt_45
. label var egfr_lt_45 "eGFR < 45"

.
. *tab1 sex  race_ethnicity_cat2   edu smoker alcoh37  hypertension  diabetes chf
anycvd egfr_lt_45
. *summarize age  totalmetsum  egfr_roche  bmi tc  uric_acid  hs_crp
.
. * tab comp_afib
. * tab egfr_lt_45 comp_afib, row chi
. gen age5=.
(3267 missing values generated)

. replace age5 = 39 if age<40
(239 real changes made)

. replace age5 = 40 if age>= 40 & age < 50
(398 real changes made)

. replace age5 = 50 if age>= 50 & age < 60
(958 real changes made)

. replace age5 = 60 if age>= 60 & age < 70
(1217 real changes made)

. replace age5 = 70 if age>= 70
(455 real changes made)

. * tab age5 comp_afib, row chi
. * tab sex comp_afib, row chi
. * tab race_ethnicity_cat2 comp_afib, row chi
.
.
. logistic comp_afib age

Logistic regression                               Number of obs   =       3267
```

```
                                                LR chi2(1)      =      55.76
                                                Prob > chi2     =     0.0000
Log likelihood =  -1533.101                     Pseudo R2       =     0.0179

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   1.034323    .004899     7.12   0.000     1.024765    1.043969
------------------------------------------------------------------------------

. logistic comp_afib age_1sd

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =      55.76
                                                Prob > chi2     =     0.0000
Log likelihood =  -1533.101                     Pseudo R2       =     0.0179

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     age_1sd |   1.440129   .0737225     7.12   0.000     1.302648     1.59212
------------------------------------------------------------------------------

.
. logistic comp_afib female

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =       0.08
                                                Prob > chi2     =     0.7807
Log likelihood = -1560.9414                     Pseudo R2       =     0.0000

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      female |    1.02553   .0928456     0.28   0.781     .8587874    1.224648
------------------------------------------------------------------------------

. logistic comp_afib male

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =       0.08
                                                Prob > chi2     =     0.7807
Log likelihood = -1560.9414                     Pseudo R2       =     0.0000

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        male |   .9751052   .0882804    -0.28   0.781      .816561    1.164433
------------------------------------------------------------------------------

. xi: logistic comp_afib NonHisp_Black

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =       5.86
                                                Prob > chi2     =     0.0155
Log likelihood = -1558.0507                     Pseudo R2       =     0.0019

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
NonHisp_Bl~k |   1.244656   .1127348     2.42   0.016     1.042201    1.486438
------------------------------------------------------------------------------
```

```
.
. char _dta[omit] "prevalent"

. xi: logistic comp_afib i.edu, or
i.edu             _Iedu_1-5           (naturally coded; _Iedu_3 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(4)      =      23.89
                                                  Prob > chi2     =     0.0001
Log likelihood = -1549.0339                       Pseudo R2       =     0.0077

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     _Iedu_1 |   1.400871   .1796173     2.63   0.009     1.089579      1.8011
     _Iedu_2 |   .8648755   .1131734    -1.11   0.267     .6692209    1.117732
     _Iedu_4 |    .798853   .1087416    -1.65   0.099     .6117859     1.04312
     _Iedu_5 |   .6880676   .1069612    -2.41   0.016     .5073533    .9331505
------------------------------------------------------------------------------

. test  _Iedu_1 _Iedu_2 _Iedu_4 _Iedu_5

 ( 1)  [comp_afib]_Iedu_1 = 0
 ( 2)  [comp_afib]_Iedu_2 = 0
 ( 3)  [comp_afib]_Iedu_4 = 0
 ( 4)  [comp_afib]_Iedu_5 = 0

           chi2(  4) =   24.24
         Prob > chi2 =    0.0001

. char _dta[omit]

.
. logistic comp_afib tc

Logistic regression                               Number of obs   =       3258
                                                  LR chi2(1)      =      12.33
                                                  Prob > chi2     =     0.0004
Log likelihood = -1550.0064                       Pseudo R2       =     0.0040

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          tc |   .9962555    .001084    -3.45   0.001     .9941331    .9983825
------------------------------------------------------------------------------

. logistic comp_afib tc_1sd

Logistic regression                               Number of obs   =       3258
                                                  LR chi2(1)      =      12.33
                                                  Prob > chi2     =     0.0004
Log likelihood = -1550.0064                       Pseudo R2       =     0.0040

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      tc_1sd |   .8483581   .0404657    -3.45   0.001     .7726413    .9314949
------------------------------------------------------------------------------

.
. logistic comp_afib uric_acid

Logistic regression                               Number of obs   =       3220
```

```
                                                LR chi2(1)      =       3.24
                                                Prob > chi2     =     0.0719
Log likelihood = -1533.4183                     Pseudo R2       =     0.0011

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   uric_acid |   1.043772   .0248188     1.80   0.072     .9962442    1.093567
------------------------------------------------------------------------------

. logistic comp_afib uric_acid_1sd

Logistic regression                             Number of obs   =       3220
                                                LR chi2(1)      =       3.24
                                                Prob > chi2     =     0.0719
Log likelihood = -1533.4183                     Pseudo R2       =     0.0011

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
uric_acid_~d |   1.085088   .0491807     1.80   0.072      .992853    1.185891
------------------------------------------------------------------------------

.
. logistic comp_afib egfr_lt_45

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =      10.89
                                                Prob > chi2     =     0.0010
Log likelihood =  -1555.533                     Pseudo R2       =     0.0035

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  egfr_lt_45 |   1.352819   .1246416     3.28   0.001     1.129313    1.620559
------------------------------------------------------------------------------

.
. logistic comp_afib hs_crp

Logistic regression                             Number of obs   =       3257
                                                LR chi2(1)      =       1.13
                                                Prob > chi2     =     0.2883
Log likelihood = -1555.4041                     Pseudo R2       =     0.0004

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      hs_crp |   1.004461   .0040996     1.09   0.275     .9964576    1.012528
------------------------------------------------------------------------------

. logistic comp_afib hs_crp_1sd

Logistic regression                             Number of obs   =       3257
                                                LR chi2(1)      =       1.13
                                                Prob > chi2     =     0.2883
Log likelihood = -1555.4041                     Pseudo R2       =     0.0004

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  hs_crp_1sd |   1.046221   .0433506     1.09   0.275      .964614    1.134732
------------------------------------------------------------------------------
```

```
.
. logistic comp_afib bmi

Logistic regression                                     Number of obs   =       3259
                                                        LR chi2(1)      =       4.14
                                                        Prob > chi2     =     0.0418
Log likelihood = -1552.8146                             Pseudo R2       =     0.0013

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bmi |   1.011263   .0055099     2.06   0.040     1.000522     1.02212
------------------------------------------------------------------------------

. logistic comp_afib bmi_1sd

Logistic regression                                     Number of obs   =       3259
                                                        LR chi2(1)      =       4.14
                                                        Prob > chi2     =     0.0418
Log likelihood = -1552.8146                             Pseudo R2       =     0.0013

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     bmi_1sd |   1.094223   .0479304     2.06   0.040     1.004201    1.192316
------------------------------------------------------------------------------

.
. logistic comp_afib totalmetsum

Logistic regression                                     Number of obs   =       3259
                                                        LR chi2(1)      =      25.43
                                                        Prob > chi2     =     0.0000
Log likelihood = -1545.1501                             Pseudo R2       =     0.0082

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 totalmetsum |   .9982108   .0003822    -4.68   0.000     .9974619    .9989603
------------------------------------------------------------------------------

. logistic comp_afib totalmetsum_1sd

Logistic regression                                     Number of obs   =       3259
                                                        LR chi2(1)      =      25.43
                                                        Prob > chi2     =     0.0000
Log likelihood = -1545.1501                             Pseudo R2       =     0.0082

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
totalmetsu~d |   .7667199    .043549    -4.68   0.000      .685945    .8570067
------------------------------------------------------------------------------

.
. char _dta[omit] "prevalent"

. xi: logistic comp_afib i.smoker
i.smoker          _Ismoker_1-3        (naturally coded; _Ismoker_3 omitted)

Logistic regression                                     Number of obs   =       3267
                                                        LR chi2(2)      =      34.17
                                                        Prob > chi2     =     0.0000
```

```
Log likelihood = -1543.8971                     Pseudo R2       =     0.0109

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Ismoker_1 |   1.376622   .1944867     2.26   0.024     1.043659    1.815812
  _Ismoker_2 |   1.779791   .1775179     5.78   0.000     1.463759    2.164057
------------------------------------------------------------------------------

. test  _Ismoker_1  _Ismoker_2

 ( 1)  [comp_afib]_Ismoker_1 = 0
 ( 2)  [comp_afib]_Ismoker_2 = 0

           chi2(  2) =   33.43
         Prob > chi2 =    0.0000

. char _dta[omit]

.
. logistic comp_afib alcoh37

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =       9.58
                                                Prob > chi2     =     0.0020
Log likelihood = -1556.1882                     Pseudo R2       =     0.0031

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     alcoh37 |   .7487632   .0706104    -3.07   0.002     .6224062    .9007725
------------------------------------------------------------------------------

. logistic comp_afib hypertension

Logistic regression                             Number of obs   =       3265
                                                LR chi2(1)      =       1.55
                                                Prob > chi2     =     0.2138
Log likelihood = -1559.7999                     Pseudo R2       =     0.0005

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
hypertension |   1.180359   .1595907     1.23   0.220     .9055807    1.538512
------------------------------------------------------------------------------

. logistic comp_afib diabetes

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =       6.05
                                                Prob > chi2     =     0.0139
Log likelihood = -1557.9562                     Pseudo R2       =     0.0019

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    diabetes |   1.248945   .1128488     2.46   0.014     1.046244    1.490919
------------------------------------------------------------------------------

. logistic comp_afib chf

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =     189.01
```

```
                                                Prob > chi2     =     0.0000
Log likelihood = -1466.4746                     Pseudo R2       =     0.0605

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         chf |   5.625733   .6860969    14.16   0.000     4.429649    7.144783
------------------------------------------------------------------------------

. logistic comp_afib anycvd

Logistic regression                             Number of obs   =       3267
                                                LR chi2(1)      =     182.68
                                                Prob > chi2     =     0.0000
Log likelihood = -1469.6413                     Pseudo R2       =     0.0585

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      anycvd |   3.476231   .3237289    13.38   0.000     2.896272    4.172324
------------------------------------------------------------------------------
```

```
------------------------------------------------------------------------------
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Table_3b_4_Output_rev1.log
  log type:  text
 opened on:  21 Apr 2011, 15:26:28

. clear all

. pause on

. set linesize 180

.
. use "Z:\CRIC\AnalysisData\MS037\m37_w_Labels.dta", clear

.
. generate NonHisp_Black = race_ethnicity_cat2

. recode NonHisp_Black (1=0)(2=1)
(NonHisp_Black: 3267 changes made)

. tab race_ethnicity_cat2 NonHisp_Black

      race ethnicity |     NonHisp_Black
          category 2 |         0          1 |     Total
---------------------+----------------------+----------
  Non-Hispanic White |     1,627          0 |     1,627
Non-Hispanic   Black |         0      1,640 |     1,640
---------------------+----------------------+----------
               Total |     1,627      1,640 |     3,267


. generate female = sex

. recode female (2=1)(1=0)
(female: 3267 changes made)

. tab female sex

           |          sex
    female |      Male     Female |     Total
-----------+----------------------+----------
         0 |     1,775          0 |     1,775
         1 |         0      1,492 |     1,492
-----------+----------------------+----------
     Total |     1,775      1,492 |     3,267


. generate male = sex

. recode male (2=0)
(male: 1492 changes made)

. tab male sex

           |          sex
      male |      Male     Female |     Total
-----------+----------------------+----------
         0 |         0      1,492 |     1,492
         1 |     1,775          0 |     1,775
-----------+----------------------+----------
     Total |     1,775      1,492 |     3,267


.
. *tab  edu_cat_1 edu
. label define edu 1"<HS" 2"HSG" 3"Post HS" 4"Col Grad" 5"Postgrad"
```

```
. label values edu edu

. *tab  edu_cat_1 edu
.
. *tab smoke100 smokenow
. *tab smoker
. label define smoker 1"Current" 2"Former" 3"Never"

. label values smoker smoker

.
. label var totalmetsum "Total Physical Activity (MET h/wk)"

.
. generate egfr_lt_45 = .
(3267 missing values generated)

. replace egfr_lt_45 = 1 if egfr_roche < 45
(1795 real changes made)

. replace egfr_lt_45 = 0 if egfr_roche >= 45
(1472 real changes made)

. * tab  egfr_lt_45
. label var egfr_lt_45 "eGFR < 45"

.
. *tab1 sex  race_ethnicity_cat2   edu smoker alcoh37  hypertension  diabetes chf
anycvd egfr_lt_45
. *summarize age  totalmetsum  egfr_roche  bmi tc  uric_acid  hs_crp
.
. * tab comp_afib
. * tab egfr_lt_45 comp_afib, row chi
. gen age5=.
(3267 missing values generated)

. replace age5 = 39 if age<40
(239 real changes made)

. replace age5 = 40 if age>= 40 & age < 50
(398 real changes made)

. replace age5 = 50 if age>= 50 & age < 60
(958 real changes made)

. replace age5 = 60 if age>= 60 & age < 70
(1217 real changes made)

. replace age5 = 70 if age>= 70
(455 real changes made)

. * tab age5 comp_afib, row chi
. * tab sex comp_afib, row chi
. * tab race_ethnicity_cat2 comp_afib, row chi
.
. encode ccidsite, generate(site)

. tab site

       cric |
center-site |      Freq.     Percent        Cum.
------------+-----------------------------------
       0101 |        470       14.39       14.39
       0201 |        266        8.14       22.53
       0202 |        251        7.68       30.21
       0302 |        184        5.63       35.84
       0303 |        156        4.78       40.62
```

```
       0304 |        175        5.36       45.97
       0401 |        310        9.49       55.46
       0402 |        120        3.67       59.14
       0403 |         98        3.00       62.14
       0501 |        388       11.88       74.01
       0601 |        382       11.69       85.71
       0701 |        403       12.34       98.04
       0702 |         64        1.96      100.00
------------+-----------------------------------
      Total |      3,267      100.00

. describe site

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
------------------------------------------------------------------------------
--------
site            long   %8.0g       site       cric center-site

.
. tab sex male

           |         male
       sex |         0          1 |     Total
-----------+----------------------+----------
      Male |         0      1,775 |     1,775
    Female |     1,492          0 |     1,492
-----------+----------------------+----------
     Total |     1,492      1,775 |     3,267


. tab sex female

           |        female
       sex |         0          1 |     Total
-----------+----------------------+----------
      Male |     1,775          0 |     1,775
    Female |         0      1,492 |     1,492
-----------+----------------------+----------
     Total |     1,775      1,492 |     3,267


.
. xi: logistic comp_afib age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(15)     =     100.75
                                                  Prob > chi2     =     0.0000
Log likelihood = -1510.6054                       Pseudo R2       =     0.0323

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     age_1sd |   1.463735   .0763613     7.30   0.000     1.321467     1.62132
      female |   1.107426   .1062327     1.06   0.287     .9176165    1.336499
NonHisp_Bl~k |   1.251504   .1233542     2.28   0.023     1.031653    1.518206
    _Isite_2 |   1.447202   .2853398     1.87   0.061     .9833328    2.129892
    _Isite_3 |   1.835154   .3542495     3.15   0.002     1.257073    2.679072
    _Isite_4 |   1.133709    .266161     0.53   0.593     .7155915    1.796132
    _Isite_5 |    .853752   .2320538    -0.58   0.561      .501154    1.454428
    _Isite_6 |   1.368834   .3239388     1.33   0.185     .8608178    2.176658
    _Isite_7 |   1.297846   .2632778     1.29   0.199     .8720682    1.931504
    _Isite_8 |   1.572288   .4119116     1.73   0.084     .9408759    2.627434
    _Isite_9 |   .5189551   .1948611    -1.75   0.081     .2486076    1.083291
   _Isite_10 |   1.654797   .2934477     2.84   0.005     1.168961    2.342554
```

```
   _Isite_11 |   1.462185   .2661301     2.09   0.037     1.023473    2.088951
   _Isite_12 |   .8360953   .1650402    -0.91   0.364     .5678501    1.231056
   _Isite_13 |   1.029914   .3992631     0.08   0.939     .4817463    2.201827
-------------------------------------------------------------------------------

. xi: logistic comp_afib age_1sd male NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(15)     =     100.75
                                                  Prob > chi2     =     0.0000
Log likelihood = -1510.6054                       Pseudo R2       =     0.0323

-------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
     age_1sd |   1.463735   .0763613     7.30   0.000     1.321467     1.62132
        male |   .9029945    .086622    -1.06   0.287     .7482237     1.08978
NonHisp_Bl~k |   1.251504   .1233542     2.28   0.023     1.031653    1.518206
    _Isite_2 |   1.447202   .2853398     1.87   0.061     .9833328    2.129892
    _Isite_3 |   1.835154   .3542495     3.15   0.002     1.257073    2.679072
    _Isite_4 |   1.133709    .266161     0.53   0.593     .7155915    1.796132
    _Isite_5 |    .853752   .2320538    -0.58   0.561      .501154    1.454428
    _Isite_6 |   1.368834   .3239388     1.33   0.185     .8608178    2.176658
    _Isite_7 |   1.297846   .2632778     1.29   0.199     .8720682    1.931504
    _Isite_8 |   1.572288   .4119116     1.73   0.084     .9408759    2.627434
    _Isite_9 |   .5189551   .1948611    -1.75   0.081     .2486076    1.083291
   _Isite_10 |   1.654797   .2934477     2.84   0.005     1.168961    2.342554
   _Isite_11 |   1.462185   .2661301     2.09   0.037     1.023473    2.088951
   _Isite_12 |   .8360953   .1650402    -0.91   0.364     .5678501    1.231056
   _Isite_13 |   1.029914   .3992631     0.08   0.939     .4817463    2.201827
-------------------------------------------------------------------------------

.
. char _dta[omit] "prevalent"

. xi: logistic comp_afib i.edu age_1sd female NonHisp_Black i.site
i.edu             _Iedu_1-5           (naturally coded; _Iedu_3 omitted)
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(19)     =     110.55
                                                  Prob > chi2     =     0.0000
Log likelihood = -1505.7049                       Pseudo R2       =     0.0354

-------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
     _Iedu_1 |   1.125698     .15351     0.87   0.385     .8616773    1.470616
     _Iedu_2 |   .7771186    .104065    -1.88   0.060     .5977254    1.010352
     _Iedu_4 |    .854016   .1203861    -1.12   0.263     .6478533    1.125785
     _Iedu_5 |   .7281844   .1183527    -1.95   0.051     .5295349    1.001355
     age_1sd |   1.455599   .0771006     7.09   0.000     1.312064    1.614836
      female |   1.096238   .1055685     0.95   0.340     .9076817    1.323964
NonHisp_Bl~k |   1.154838   .1214032     1.37   0.171     .9398048    1.419071
    _Isite_2 |   1.433085   .2832575     1.82   0.069     .9728082    2.111139
    _Isite_3 |   1.743907    .339494     2.86   0.004     1.190738    2.554057
    _Isite_4 |   1.105427   .2606482     0.43   0.671     .6963471    1.754828
    _Isite_5 |   .8350595   .2285173    -0.66   0.510      .488408    1.427749
    _Isite_6 |   1.342549   .3189767     1.24   0.215     .8427384    2.138786
    _Isite_7 |   1.286443   .2616764     1.24   0.216     .8634697    1.916612
    _Isite_8 |   1.519183   .3996253     1.59   0.112     .9071919    2.544023
    _Isite_9 |    .501449   .1884929    -1.84   0.066     .2400287    1.047588
   _Isite_10 |   1.557105    .279515     2.47   0.014     1.095265    2.213689
   _Isite_11 |   1.396231   .2565551     1.82   0.069     .9739806    2.001539
   _Isite_12 |   .8360909   .1659101    -0.90   0.367     .5666891    1.233565
   _Isite_13 |   1.047401   .4070962     0.12   0.905     .4889612    2.243633
```

```
------------------------------------------------------------------------------

. test  _Iedu_1 _Iedu_2 _Iedu_4 _Iedu_5

 ( 1)  [comp_afib]_Iedu_1 = 0
 ( 2)  [comp_afib]_Iedu_2 = 0
 ( 3)  [comp_afib]_Iedu_4 = 0
 ( 4)  [comp_afib]_Iedu_5 = 0

           chi2(  4) =    9.73
         Prob > chi2 =    0.0452

. char _dta[omit]

.
. xi: logistic comp_afib tc_1sd age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3258
                                                  LR chi2(16)     =     111.20
                                                  Prob > chi2     =     0.0000
Log likelihood = -1500.5723                       Pseudo R2       =     0.0357

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      tc_1sd |   .8533107   .0423187    -3.20   0.001     .7742712    .9404187
     age_1sd |   1.452091   .0761003     7.12   0.000     1.310342    1.609175
      female |    1.18494   .1160956     1.73   0.083     .9779105    1.435799
NonHisp_Bl~k |   1.260774   .1246572     2.34   0.019     1.038666    1.530377
    _Isite_2 |   1.463409   .2890991     1.93   0.054     .9935948    2.155371
    _Isite_3 |   1.863214   .3605012     3.22   0.001     1.275174    2.722427
    _Isite_4 |   1.128548   .2655125     0.51   0.607     .7116375    1.789705
    _Isite_5 |   .8400294   .2287576    -0.64   0.522     .4926001    1.432499
    _Isite_6 |   1.372144   .3251617     1.34   0.182     .8623576    2.183292
    _Isite_7 |    1.31729   .2676795     1.36   0.175     .8845315    1.961777
    _Isite_8 |   1.621655   .4267537     1.84   0.066     .9681819     2.71619
    _Isite_9 |   .5328145   .2004227    -1.67   0.094     .2549114    1.113686
   _Isite_10 |   1.638777   .2916187     2.78   0.006     1.156244    2.322685
   _Isite_11 |   1.494767   .2736156     2.20   0.028     1.044147    2.139858
   _Isite_12 |   .8540288     .16889    -0.80   0.425     .5796177    1.258356
   _Isite_13 |   1.019967   .3955312     0.05   0.959     .4769798    2.181082
------------------------------------------------------------------------------

. xi: logistic comp_afib uric_acid_1sd age female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3220
                                                  LR chi2(16)     =      96.76
                                                  Prob > chi2     =     0.0000
Log likelihood = -1486.6586                       Pseudo R2       =     0.0315

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
uric_acid_~d |    1.01017   .0495568     0.21   0.837     .9175643    1.112123
         age |   1.034995   .0050407     7.06   0.000     1.025163    1.044922
      female |   1.123278   .1105946     1.18   0.238      .926148    1.362367
NonHisp_Bl~k |    1.22885   .1241083     2.04   0.041     1.008164    1.497843
    _Isite_2 |   1.430341   .2822738     1.81   0.070     .9715327    2.105823
    _Isite_3 |   1.804302   .3514381     3.03   0.002     1.231726    2.643044
    _Isite_4 |   1.096476   .2602399     0.39   0.698       .68861    1.745923
    _Isite_5 |   .8367105   .2275698    -0.66   0.512     .4909803    1.425891
    _Isite_6 |   1.352516   .3210955     1.27   0.203     .8493018    2.153887
    _Isite_7 |   1.288069   .2628859     1.24   0.215     .8634058    1.921602
    _Isite_8 |   1.510297   .4029845     1.55   0.122     .8952424    2.547909
    _Isite_9 |   .5315409   .1999138    -1.68   0.093     .2543301    1.110901
```

```
   _Isite_10 |   1.619768   .2908665     2.69   0.007     1.139201    2.303062
   _Isite_11 |    1.40436   .2585297     1.84   0.065     .9789944    2.014544
   _Isite_12 |   .7931898   .1580775    -1.16   0.245     .5367082    1.172239
   _Isite_13 |   1.007596    .390708     0.02   0.984     .4712183     2.15452
------------------------------------------------------------------------------

. xi: logistic comp_afib egfr_lt_45 age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(16)     =     101.96
                                                  Prob > chi2     =     0.0000
Log likelihood = -1509.9983                       Pseudo R2       =     0.0327

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  egfr_lt_45 |   1.115057   .1103239     1.10   0.271     .9184994    1.353677
     age_1sd |   1.451301   .0764292     7.07   0.000     1.308974    1.609103
      female |   1.095009   .1056335     0.94   0.347     .9063667    1.322914
NonHisp_Bl~k |   1.254352   .1236783     2.30   0.022     1.033931    1.521764
    _Isite_2 |   1.425985   .2818584     1.80   0.073      .967983    2.100692
    _Isite_3 |   1.794079   .3482259     3.01   0.003     1.226382    2.624566
    _Isite_4 |   1.116642    .262672     0.47   0.639     .7041784    1.770702
    _Isite_5 |    .845934   .2301422    -0.61   0.539     .4963194    1.441822
    _Isite_6 |   1.317353   .3150713     1.15   0.249     .8243667    2.105155
    _Isite_7 |   1.281398    .260405     1.22   0.222     .8604057     1.90838
    _Isite_8 |   1.512266   .3997227     1.56   0.118     .9008205    2.538739
    _Isite_9 |   .5129198   .1926512    -1.78   0.075     .2456635    1.070923
   _Isite_10 |   1.582878   .2877411     2.53   0.012     1.108442    2.260382
   _Isite_11 |   1.446625   .2637013     2.03   0.043     1.012029    2.067851
   _Isite_12 |   .8415089   .1662042    -0.87   0.382     .5713999    1.239302
   _Isite_13 |   1.014162   .3934343     0.04   0.971     .4741242    2.169316
------------------------------------------------------------------------------

. xi: logistic comp_afib hs_crp_1sd age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3257
                                                  LR chi2(16)     =     101.06
                                                  Prob > chi2     =     0.0000
Log likelihood = -1505.4387                       Pseudo R2       =     0.0325

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  hs_crp_1sd |   1.023694   .0447583     0.54   0.592     .9396226    1.115287
     age_1sd |   1.467248   .0767867     7.33   0.000      1.32421    1.625736
      female |   1.114767   .1071304     1.13   0.258     .9233849    1.345816
NonHisp_Bl~k |   1.236875   .1225762     2.15   0.032     1.018522    1.502039
    _Isite_2 |    1.44943   .2858741     1.88   0.060     .9847208    2.133445
    _Isite_3 |   1.802981   .3492155     3.04   0.002     1.233457    2.635473
    _Isite_4 |   1.136898   .2670519     0.55   0.585     .7174279    1.801626
    _Isite_5 |   .8502197   .2311113    -0.60   0.551     .4990603    1.448469
    _Isite_6 |   1.366896   .3235724     1.32   0.187     .8594857    2.173864
    _Isite_7 |   1.299846   .2638332     1.29   0.196     .8732153    1.934918
    _Isite_8 |   1.589128   .4167449     1.77   0.077     .9504587    2.656956
    _Isite_9 |   .5197533   .1951633    -1.74   0.081     .2489876    1.084968
   _Isite_10 |   1.660966   .2950903     2.86   0.004     1.172559     2.35281
   _Isite_11 |   1.442002    .263323     2.00   0.045     1.008157    2.062543
   _Isite_12 |   .8331372   .1644992    -0.92   0.355     .5657839    1.226824
   _Isite_13 |   1.028801   .3989126     0.07   0.942     .4811515    2.199787
------------------------------------------------------------------------------

. xi: logistic comp_afib bmi_1sd age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)
```

```
Logistic regression                                     Number of obs   =       3259
                                                        LR chi2(16)     =     101.72
                                                        Prob > chi2     =     0.0000
Log likelihood = -1504.0247                             Pseudo R2       =     0.0327

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     bmi_1sd |   1.091891   .0510116     1.88   0.060     .9963507    1.196592
     age_1sd |   1.469319   .0772732     7.32   0.000     1.325411    1.628853
      female |   1.078075    .104832     0.77   0.439      .891001    1.304427
NonHisp_Bl~k |   1.223158    .121191     2.03   0.042     1.007268     1.48532
    _Isite_2 |   1.427831   .2818022     1.80   0.071     .9697963    2.102196
    _Isite_3 |   1.767123   .3435517     2.93   0.003     1.207208    2.586732
    _Isite_4 |   1.136778   .2669624     0.55   0.585     .7174281    1.801246
    _Isite_5 |   .8265973   .2252505    -0.70   0.485     .4845502    1.410098
    _Isite_6 |   1.364439   .3233847     1.31   0.190     .8574551    2.171185
    _Isite_7 |   1.292482   .2623595     1.26   0.206     .8682408    1.924018
    _Isite_8 |   1.560534   .4097061     1.70   0.090     .9328175    2.610655
    _Isite_9 |   .5194514   .1951954    -1.74   0.081     .2487065    1.084933
   _Isite_10 |   1.644868    .292087     2.80   0.005     1.161393    2.329608
   _Isite_11 |   1.419767   .2594401     1.92   0.055     .9923694    2.031238
   _Isite_12 |   .8382912   .1656062    -0.89   0.372      .569165    1.234672
   _Isite_13 |    1.03908   .4031949     0.10   0.921     .4856871    2.223009
------------------------------------------------------------------------------

. xi: logistic comp_afib totalmetsum_1sd age female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                                     Number of obs   =       3259
                                                        LR chi2(16)     =     109.26
                                                        Prob > chi2     =     0.0000
Log likelihood = -1503.2337                             Pseudo R2       =     0.0351

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
totalmetsu~d |   .8532635   .0488444    -2.77   0.006     .7627054    .9545738
         age |   1.031698   .0051467     6.26   0.000      1.02166    1.041835
      female |   1.099683   .1057653     0.99   0.323     .9107533    1.327805
NonHisp_Bl~k |   1.242839   .1227605     2.20   0.028      1.02409    1.508314
    _Isite_2 |    1.44861   .2858452     1.88   0.060     .9839863    2.132621
    _Isite_3 |   1.806399   .3494768     3.06   0.002     1.236332    2.639321
    _Isite_4 |   1.128468   .2655282     0.51   0.608     .7115436    1.789685
    _Isite_5 |   .8539513   .2323276    -0.58   0.562     .5010183    1.455501
    _Isite_6 |   1.385597   .3284802     1.38   0.169     .8706521    2.205105
    _Isite_7 |   1.297269   .2634582     1.28   0.200     .8712893    1.931514
    _Isite_8 |    1.57173   .4129812     1.72   0.085     .9391172    2.630487
    _Isite_9 |   .4442088   .1751636    -2.06   0.040     .2050857    .9621417
   _Isite_10 |    1.58434   .2822059     2.58   0.010     1.117456    2.246292
   _Isite_11 |   1.424214   .2598076     1.94   0.053     .9960872    2.036352
   _Isite_12 |   .8314955   .1642784    -0.93   0.350     .5645315    1.224706
   _Isite_13 |    1.00407   .3892107     0.01   0.992     .4696886    2.146435
------------------------------------------------------------------------------

.
. char _dta[omit] "prevalent"

. xi: logistic comp_afib i.smoker age_1sd female NonHisp_Black i.site
i.smoker          _Ismoker_1-3        (naturally coded; _Ismoker_3 omitted)
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                                     Number of obs   =       3267
                                                        LR chi2(17)     =     119.39
                                                        Prob > chi2     =     0.0000
Log likelihood = -1501.2873                             Pseudo R2       =     0.0382
```

```
------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Ismoker_1 |   1.298929   .1889252     1.80   0.072     .9767438    1.727388
  _Ismoker_2 |   1.560346   .1621443     4.28   0.000     1.272823     1.91282
     age_1sd |   1.402452   .0754163     6.29   0.000     1.262162    1.558336
      female |   1.163566   .1128112     1.56   0.118      .962198    1.407076
NonHisp_Bl~k |   1.267966   .1262095     2.39   0.017     1.043234    1.541111
    _Isite_2 |   1.471872   .2910264     1.95   0.051     .9990014    2.168574
    _Isite_3 |   1.816536   .3518094     3.08   0.002     1.242772    2.655196
    _Isite_4 |     1.0945   .2578582     0.38   0.702     .6897273    1.736818
    _Isite_5 |   .8404764   .2292979    -0.64   0.524     .4923814    1.434661
    _Isite_6 |   1.372514   .3259011     1.33   0.182     .8617883    2.185915
    _Isite_7 |   1.295846   .2637843     1.27   0.203     .8695239    1.931191
    _Isite_8 |   1.549297   .4071781     1.67   0.096     .9256062    2.593242
    _Isite_9 |   .5164511   .1944434    -1.76   0.079     .2469179    1.080204
   _Isite_10 |    1.60452   .2859869     2.65   0.008     1.131432    2.275422
   _Isite_11 |   1.427292    .260744     1.95   0.051     .9977267    2.041804
   _Isite_12 |    .836803   .1657852    -0.90   0.368     .5675255    1.233846
   _Isite_13 |   1.045827    .406241     0.12   0.908      .488449     2.23924
------------------------------------------------------------------------------

. test  _Ismoker_1  _Ismoker_1

 ( 1)  [comp_afib]_Ismoker_1 = 0
 ( 2)  [comp_afib]_Ismoker_1 = 0
       Constraint 2 dropped

           chi2(  1) =    3.23
         Prob > chi2 =    0.0721

. char _dta[omit]

.
. xi: logistic comp_afib alcoh37 age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(16)     =     102.66
                                                  Prob > chi2     =     0.0000
Log likelihood =  -1509.649                       Pseudo R2       =     0.0329

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     alcoh37 |   .8695494   .0881231    -1.38   0.168     .7129033    1.060615
     age_1sd |   1.452456   .0762182     7.11   0.000     1.310497    1.609794
      female |   1.077618   .1055347     0.76   0.445     .8894143    1.305647
NonHisp_Bl~k |   1.219925   .1223416     1.98   0.047     1.002234    1.484899
    _Isite_2 |     1.4347   .2831024     1.83   0.067     .9745355    2.112149
    _Isite_3 |   1.808837   .3497617     3.07   0.002     1.238251    2.642349
    _Isite_4 |   1.127943   .2648941     0.51   0.608      .711844    1.787266
    _Isite_5 |   .8382536   .2282143    -0.65   0.517     .4916274    1.429272
    _Isite_6 |   1.362696   .3226347     1.31   0.191     .8567746     2.16736
    _Isite_7 |   1.282167   .2603841     1.22   0.221     .8611554    1.909008
    _Isite_8 |   1.536963   .4033814     1.64   0.101      .918888    2.570776
    _Isite_9 |   .5098578   .1915717    -1.79   0.073     .2441307    1.064819
   _Isite_10 |   1.622206   .2886439     2.72   0.007     1.144588    2.299126
   _Isite_11 |   1.440088   .2626167     2.00   0.046     1.007309    2.058807
   _Isite_12 |   .8414823   .1661834    -0.87   0.382     .5714026    1.239218
   _Isite_13 |   1.044525   .4050583     0.11   0.911     .4884605    2.233612
------------------------------------------------------------------------------

. xi: logistic comp_afib hypertension age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3265
```

```
                                                LR chi2(16)     =     102.19
                                                Prob > chi2     =     0.0000
Log likelihood = -1509.4798                     Pseudo R2       =     0.0327

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
hypertension |   .8314069   .1207443    -1.27   0.204     .6254529    1.105179
     age_1sd |   1.482213   .0787037     7.41   0.000     1.335712    1.644782
      female |   1.102191   .1057841     1.01   0.311     .9131916    1.330307
NonHisp_Bl~k |   1.280763   .1287515     2.46   0.014     1.051719    1.559688
    _Isite_2 |   1.438297   .2837367     1.84   0.065     .9770793    2.117227
    _Isite_3 |   1.853435    .358249     3.19   0.001     1.268964    2.707107
    _Isite_4 |   1.143567   .2686357     0.57   0.568     .7216151    1.812248
    _Isite_5 |   .8633699    .234773    -0.54   0.589     .5066789    1.471164
    _Isite_6 |   1.390177   .3295449     1.39   0.165     .8735559    2.212328
    _Isite_7 |   1.298895   .2635945     1.29   0.198      .872636    1.933369
    _Isite_8 |   1.602332   .4208025     1.80   0.073     .9576589    2.680983
    _Isite_9 |   .5289073   .1987754    -1.69   0.090     .2532087    1.104792
   _Isite_10 |   1.679536   .2986411     2.92   0.004     1.185321    2.379814
   _Isite_11 |   1.472609   .2682078     2.13   0.034     1.030522    2.104348
   _Isite_12 |   .8185045   .1622741    -1.01   0.312     .5549638    1.207195
   _Isite_13 |   1.031719    .400106     0.08   0.936     .4824599    2.206286
------------------------------------------------------------------------------

. xi: logistic comp_afib diabetes age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                             Number of obs   =       3267
                                                LR chi2(16)     =     101.90
                                                Prob > chi2     =     0.0000
Log likelihood = -1510.0289                     Pseudo R2       =     0.0326

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    diabetes |   1.105662   .1033906     1.07   0.283     .9205058    1.328062
     age_1sd |   1.457138   .0763749     7.18   0.000     1.314878    1.614789
      female |   1.108335   .1063841     1.07   0.284     .9182645    1.337747
NonHisp_Bl~k |   1.236665   .1226713     2.14   0.032     1.018162     1.50206
    _Isite_2 |   1.460781   .2883664     1.92   0.055     .9920945    2.150884
    _Isite_3 |   1.836045   .3544478     3.15   0.002     1.257649    2.680449
    _Isite_4 |   1.137974   .2672944     0.55   0.582     .7181201      1.8033
    _Isite_5 |   .8573674   .2331161    -0.57   0.571     .5031846    1.460853
    _Isite_6 |   1.370973    .324423     1.33   0.182       .86219    2.179991
    _Isite_7 |   1.309962    .265992     1.33   0.184     .8798716    1.950284
    _Isite_8 |   1.563765   .4097511     1.71   0.088      .935691    2.613428
    _Isite_9 |   .5234498   .1966244    -1.72   0.085     .2506898    1.092983
   _Isite_10 |    1.65341   .2933094     2.83   0.005     1.167832    2.340889
   _Isite_11 |   1.469295   .2675561     2.11   0.035     1.028268    2.099478
   _Isite_12 |   .8530228   .1691606    -0.80   0.423     .5783107     1.25823
   _Isite_13 |   1.034243   .4009649     0.09   0.931     .4837497    2.211181
------------------------------------------------------------------------------

. xi: logistic comp_afib chf age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                             Number of obs   =       3267
                                                LR chi2(16)     =     263.97
                                                Prob > chi2     =     0.0000
Log likelihood = -1428.9934                     Pseudo R2       =     0.0846

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         chf |   5.205222   .6587374    13.04   0.000     4.061785    6.670548
     age_1sd |   1.426201   .0771044     6.57   0.000      1.28281     1.58562
```

```
      female |   1.139206    .113248     1.31   0.190     .9375288    1.384267
NonHisp_Bl~k |   1.141406   .1169872     1.29   0.197     .9336775     1.39535
    _Isite_2 |   1.375094   .2820727     1.55   0.120     .9198683    2.055603
    _Isite_3 |   1.810342   .3629308     2.96   0.003     1.222123    2.681677
    _Isite_4 |   1.118726   .2723643     0.46   0.645     .6942098    1.802838
    _Isite_5 |   .9218902   .2564596    -0.29   0.770     .5344221    1.590282
    _Isite_6 |   1.477828   .3611014     1.60   0.110     .9154532    2.385677
    _Isite_7 |   1.460737   .3045066     1.82   0.069     .9708004    2.197933
    _Isite_8 |   1.630032   .4429685     1.80   0.072     .9569256    2.776604
    _Isite_9 |   .5817208    .222201    -1.42   0.156     .2751563    1.229843
   _Isite_10 |   1.595037   .2934608     2.54   0.011      1.11215    2.287589
   _Isite_11 |   1.238082   .2355659     1.12   0.262     .8526954    1.797648
   _Isite_12 |   .9224304   .1871539    -0.40   0.691     .6197713     1.37289
   _Isite_13 |   1.222727   .4779103     0.51   0.607     .5683712     2.63043
-------------------------------------------------------------------------------

. xi: logistic comp_afib anycvd age_1sd female NonHisp_Black i.site
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3267
                                                  LR chi2(16)     =     234.81
                                                  Prob > chi2     =     0.0000
Log likelihood = -1443.5731                       Pseudo R2       =     0.0752

-------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
      anycvd |   3.062218   .2990441    11.46   0.000     2.528781    3.708183
     age_1sd |   1.292058    .071131     4.65   0.000     1.159902    1.439271
      female |   1.212925   .1199747     1.95   0.051     .9991679    1.472412
NonHisp_Bl~k |   1.172726   .1188225     1.57   0.116     .9615051    1.430348
    _Isite_2 |   1.450888   .2929328     1.84   0.065     .9767356    2.155215
    _Isite_3 |   1.705413   .3375537     2.70   0.007     1.157046    2.513671
    _Isite_4 |   1.163742   .2791108     0.63   0.527      .727286    1.862122
    _Isite_5 |   .8543107   .2369682    -0.57   0.570     .4960325    1.471369
    _Isite_6 |   1.271803   .3082381     0.99   0.321     .7908971    2.045124
    _Isite_7 |   1.374535   .2848533     1.54   0.125     .9157056    2.063267
    _Isite_8 |   1.458616   .3916321     1.41   0.160     .8617814    2.468794
    _Isite_9 |   .4970436    .189201    -1.84   0.066     .2357123     1.04811
   _Isite_10 |   1.457687   .2655304     2.07   0.039     1.020025    2.083138
   _Isite_11 |   1.247509   .2326051     1.19   0.236     .8656303    1.797857
   _Isite_12 |   .9305798   .1874698    -0.36   0.721     .6270107    1.381123
   _Isite_13 |   1.115705    .440544     0.28   0.782     .5145724    2.419092
-------------------------------------------------------------------------------

.
. * summarize age_1sd tc uric_acid hs_crp bmi totalmetsum totalmetsum_1sd
.
. char _dta[omit] "prevalent"

. xi: logistic comp_afib age_1sd female NonHisp_Black i.edu tc_1sd bmi_1sd
totalmetsum_1sd i.smoker chf anycvd i.site
i.edu             _Iedu_1-5           (naturally coded; _Iedu_3 omitted)
i.smoker          _Ismoker_1-3        (naturally coded; _Ismoker_3 omitted)
i.site            _Isite_1-13         (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3242
                                                  LR chi2(26)     =     321.48
                                                  Prob > chi2     =     0.0000
Log likelihood = -1386.2182                       Pseudo R2       =     0.1039

-------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
     age_1sd |    1.27172    .076162     4.01   0.000     1.130874    1.430109
      female |      1.256   .1321626     2.17   0.030     1.021932     1.54368
NonHisp_Bl~k |   1.072961    .119803     0.63   0.528     .8620686    1.335445
```

```
      _Iedu_1 |   1.141451   .1655623     0.91   0.362     .8590028    1.516772
      _Iedu_2 |   .7624111   .1079263    -1.92   0.055     .5776887    1.006201
      _Iedu_4 |   1.025451    .151151     0.17   0.865     .7681541    1.368932
      _Iedu_5 |   .8377777   .1427331    -1.04   0.299     .5999412      1.1699
       tc_1sd |   .9250014   .0469154    -1.54   0.124     .8374715     1.02168
      bmi_1sd |   1.035837   .0517346     0.70   0.481     .9392439    1.142364
totalmetsu~d |   .9270184   .0542663    -1.29   0.195     .8265331     1.03972
  _Ismoker_1 |   1.145412   .1791194     0.87   0.385     .8430453    1.556225
  _Ismoker_2 |   1.336202   .1461347     2.65   0.008     1.078399    1.655634
         chf |   3.277978   .4755458     8.18   0.000     2.466719    4.356044
      anycvd |   1.943172   .2201694     5.86   0.000     1.556204    2.426364
     _Isite_2 |   1.405971   .2922553     1.64   0.101     .9354908    2.113067
     _Isite_3 |    1.65442   .3411864     2.44   0.015     1.104345    2.478487
     _Isite_4 |   1.091799   .2708112     0.35   0.723     .6714433    1.775316
     _Isite_5 |   .8984611   .2551446    -0.38   0.706     .5149622    1.567556
     _Isite_6 |   1.425796    .352948     1.43   0.152     .8777021    2.316155
     _Isite_7 |   1.497454   .3169505     1.91   0.056     .9889824     2.26735
     _Isite_8 |   1.642085   .4529227     1.80   0.072     .9563476    2.819522
     _Isite_9 |   .4903336   .1989481    -1.76   0.079     .2213731    1.086071
    _Isite_10 |   1.391995   .2642536     1.74   0.081     .9595055    2.019427
    _Isite_11 |   1.120274   .2190701     0.58   0.561     .7636098    1.643528
    _Isite_12 |   .9574109   .1975486    -0.21   0.833     .6389467    1.434604
    _Isite_13 |   1.204745   .4761351     0.47   0.637     .5552469     2.61399
------------------------------------------------------------------------------

. xi: logistic comp_afib age_1sd   male NonHisp_Black i.edu tc_1sd bmi_1sd
totalmetsum_1sd i.smoker chf anycvd i.site
i.edu             _Iedu_1-5          (naturally coded; _Iedu_3 omitted)
i.smoker          _Ismoker_1-3       (naturally coded; _Ismoker_3 omitted)
i.site            _Isite_1-13        (naturally coded; _Isite_1 omitted)

Logistic regression                               Number of obs   =       3242
                                                  LR chi2(26)     =     321.48
                                                  Prob > chi2     =     0.0000
Log likelihood = -1386.2182                       Pseudo R2       =     0.1039

------------------------------------------------------------------------------
   comp_afib | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     age_1sd |    1.27172    .076162     4.01   0.000     1.130874    1.430109
        male |   .7961784   .0837779    -2.17   0.030     .6478027    .9785388
NonHisp_Bl~k |   1.072961    .119803     0.63   0.528     .8620686    1.335445
     _Iedu_1 |   1.141451   .1655623     0.91   0.362     .8590028    1.516772
     _Iedu_2 |   .7624111   .1079263    -1.92   0.055     .5776887    1.006201
     _Iedu_4 |   1.025451    .151151     0.17   0.865     .7681541    1.368932
     _Iedu_5 |   .8377777   .1427331    -1.04   0.299     .5999412      1.1699
      tc_1sd |   .9250014   .0469154    -1.54   0.124     .8374715     1.02168
     bmi_1sd |   1.035837   .0517346     0.70   0.481     .9392439    1.142364
totalmetsu~d |   .9270184   .0542663    -1.29   0.195     .8265331     1.03972
  _Ismoker_1 |   1.145412   .1791194     0.87   0.385     .8430453    1.556225
  _Ismoker_2 |   1.336202   .1461347     2.65   0.008     1.078399    1.655634
         chf |   3.277978   .4755458     8.18   0.000     2.466719    4.356044
      anycvd |   1.943172   .2201694     5.86   0.000     1.556204    2.426364
     _Isite_2 |   1.405971   .2922553     1.64   0.101     .9354908    2.113067
     _Isite_3 |    1.65442   .3411864     2.44   0.015     1.104345    2.478487
     _Isite_4 |   1.091799   .2708112     0.35   0.723     .6714433    1.775316
     _Isite_5 |   .8984611   .2551446    -0.38   0.706     .5149622    1.567556
     _Isite_6 |   1.425796    .352948     1.43   0.152     .8777021    2.316155
     _Isite_7 |   1.497454   .3169505     1.91   0.056     .9889824     2.26735
     _Isite_8 |   1.642085   .4529227     1.80   0.072     .9563476    2.819522
     _Isite_9 |   .4903336   .1989481    -1.76   0.079     .2213731    1.086071
    _Isite_10 |   1.391995   .2642536     1.74   0.081     .9595055    2.019427
    _Isite_11 |   1.120274   .2190701     0.58   0.561     .7636098    1.643528
    _Isite_12 |   .9574109   .1975486    -0.21   0.833     .6389467    1.434604
    _Isite_13 |   1.204745   .4761351     0.47   0.637     .5552469     2.61399
------------------------------------------------------------------------------
```

```
. char _dta[omit]

. test  _Iedu_1  _Iedu_2  _Iedu_4  _Iedu_5

 ( 1)  [comp_afib]_Iedu_1 = 0
 ( 2)  [comp_afib]_Iedu_2 = 0
 ( 3)  [comp_afib]_Iedu_4 = 0
 ( 4)  [comp_afib]_Iedu_5 = 0

           chi2(  4) =    7.97
         Prob > chi2 =    0.0925

. test  _Ismoker_1  _Ismoker_2

 ( 1)  [comp_afib]_Ismoker_1 = 0
 ( 2)  [comp_afib]_Ismoker_2 = 0

           chi2(  2) =    7.06
         Prob > chi2 =    0.0293

.
. log close
      name:  <unnamed>
       log:  Z:\CRIC\AnalysisData\MS037\Table_3b_4_Output_rev1.log
  log type:  text
 closed on:  21 Apr 2011, 15:26:41
-------------------------------------------------------------------------------
```