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June 10, 2009

Dataset Integrity Check (DSIC) for the
Boston Area Community Health Survey (BACH) Baseline File

Reference paper: FitzGerald MP, et.al. The Association of Nocturia With Cardiac Disease, Diabetes, Body Mass Index, Age and Diuretic Use: Results from the BACH Survey *The Journal of Urology* 177 [Apr 2007]: 1385-89.

The BACH survey is a population based epidemiological survey of a broad range of urological symptoms in randomly selected respondents. Individuals from select census blocks were chosen to achieve the goal of an approximately equal number of black, white, and Hispanic men and women in the 4 age categories 30 to 39, 40 to 49, 50 to 59 and 60 to 79 years. The BACH sample of 5506 participants was recruited from April 2002 through June 2005. To be representative of Boston observations were weighted inversely proportional to their probability of selection into the study. As a partial check of the integrity of the BACH baseline survey dataset archived in the NIDDK data repository, a dataset integrity check (DSIC) was performed to verify that selected published results from the BACH study can be reproduced using the archived dataset. The DSIC consists of a small number of analyses performed to duplicate published results reported by the BACH Study Group [1] in *The Journal of Urology* in April, 2007. Results of the DSIC are described below.

The intent of this DSIC is to provide confidence that the data 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 data coordinating center (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 an integrity check. Specifically, 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 in footnotes to the integrity check those instances in which our secondary analyses produced results that were not fully consistent with those reported in the target publication.

Archived Dataset Contents. The DCC submitted a single *SAS v9* analytical data file (<repositmain2.sas7bdat>) representing the combined raw data collected from five data collection forms and calculated variables such as age at interview. In total, the file contained 5506 observations, corresponding to the 5506 subjects in the analysis cohort, and 583 variables. Electronic files of data collection forms also were submitted, with fields populated with the corresponding *SAS* variable names. *SAS* variables were labeled with a detailed description including form name and item number. *SAS* formats (value labels) were provided as a separate *SAS v8.02* formats file (<formats.sas7bcat>). As the BACH survey had a multi-stage cluster design, the analytical file included PSU, strata, and post-stratification analysis weights. Missing data values were qualified with labels such as “Don’t Know”, “N/A”, “Refused”, “Skip”, or “Missing”.

Information on medication usage was not available at the time of this DSIC. Data on diuretic use, a covariate in the current analysis, was provided by the DCC in a separate dataset (<diuretic.sas7bdat>).[1]

DSIC Analysis Methods. For purposes of this DSIC, a portion of published results was replicated, selected to assure the quality of the archived dataset.

As indicated in the publication, nocturia was defined as present or absent based on responses to 2 questions from the BACH instrument. Question 1 was "In the last month, how often have you had to get up to urinate more than once during the night?" Question 2 was "In the last 7 days, on average, how many times have you had to go to the bathroom to empty your bladder during the night after falling asleep?" If the answer to question 1 was fairly often, usually or almost always, or the answer to question 2 was two or greater, the respondent was considered to have nocturia.[2]

The prevalence of nocturia was calculated overall and by age group, race/ethnicity and gender. Logistic regression was used to study the effect of age, race/ethnicity, gender, diabetes, BMI, cardiac disease, and diuretic use on the prevalence of nocturia.

As in published analyses, statistical analyses of archived data were performed using *PC-SAS* and *SUDAAN* software. Prevalences are reported as weighted percents. Chi-square tests were used to assess differences in two-way breakdowns. The publication states that a multiple imputation technique was used to impute the small number of missing covariate values. These multiply imputed data values were not included in the archived dataset. Thus, results of analyses of archived data are expected to differ slightly from published results. For purposes of the DSIC, missing values in the archived dataset, including qualified missings (e.g., responses of "don't know" or "refused"), were excluded from the analysis.

DSIC Results: Demographics. Weighted distributions of age (<40, 40-49, 50-59, 60+), race/ethnicity (Black, Hispanic, White), gender, BMI (<25, 25-29, 30+ kg/m^2), type II diabetes, and cardiac disease very closely matched published breakdowns. Observed numbers of participants per breakdown differed slightly in DSIC versus published results. In the archived dataset, not every participant fit into published age breakdowns of 30-39, 40-49, 50-59, and 60-79 years. Calculated age at baseline interview was provided as a variable in the archived dataset (median 48.9 years, minimum 27.0, maximum 82.9). Seven subjects in the archived dataset were aged less than 30 years, after rounding up to the nearest whole-year. Five subjects were aged 80 years or older, even after rounding down to the nearest whole-year.[3]

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[1] The full legacy medication dataset was subsequently submitted in December 2008, and an addendum to the current Integrity Check prepared. See: https://www.niddkrepository.org/niddkdocs/integrity/BACH_DSIC_meds_05-01-09_plus_app.pdf .

[2] From study publication, p.1386.

[3] The DCC has acknowledged the discrepancies in categorical age. The following statement was provided in an E-Mail on 01/24/08: "…It is true that there are a few people reportedly not within the 30-79 year old range. This occurred because they were identified as between 30-79 at the screening stage, but (when birthdates were collected), they were outside the range. In this analysis (and other BACH analyses), a categorical variable for age was used with four age groups of people. The people <30 are in the 30-39 group and the people >79 are in the 70-79 group. The exception to this is if age (was) used as a continuous variable; then actual age (was) used."

In the case of BMI, differences in observed breakdowns between DSIC and published results may be due to the inclusion of imputed data values in published results[4]. As mentioned previously, missing data values were *not* imputed in analysis of archived data [Table 1].

[4] The DCC provided the following statement on 01/24/08: "We have double-checked the published results in Tables 1 and 2, and all of the discrepancies with the archived dataset are due to differences between the archive dataset and the multiple imputation dataset."

Table 1. Demographics of 5506 BACH Participants: Archived vs. Published Results

(published results extracted from Table 1 in Fitzgerald, MP, 2007: p. 1387)

	No. Overall (weighted %)						No. Men (weighted %)						No. Women (weighted %)						P value	
	Archived		Published		Difference		Archived		Published		Difference		Archived		Published		Difference		Archived	Published
Age[5]																			0.025	0.026
<39	1407	(35.2)	1405	(35.2)	-2	(0.0)	615	(37.2)	614	(37.2)	-1	(0.0)	792	(33.5)	791	(33.5)	-1	(0.0)		
40-49	1499	(25.1)	1501	(25.1)	2	(0.0)	659	(25.8)	660	(25.8)	1	(0.0)	840	(24.4)	841	(24.4)	1	(0.0)		
50-59	1289	(18.1)	1289	(18.1)	0	(0.0)	510	(17.8)	509	(17.8)	-1	(0.0)	779	(18.4)	780	(18.4)	1	(0.0)		
60+	1311	(21.6)	1311	(21.6)	0	(0.0)	517	(19.2)	518	(19.2)	1	(0.0)	794	(23.7)	793	(23.7)	-1	(0.0)		
Race/ethnicity																			0.024	0.024
Black	1770	(27.6)	1770	(27.6)	0	(0.0)	700	(25.0)	700	(25.1)	0	(0.1)	1070	(29.9)	1070	(29.9)	0	(0.0)		
Hispanic	1877	(13.2)	1877	(13.2)	0	(0.0)	766	(13.0)	766	(13.0)	0	(0.0)	1111	(13.3)	1111	(13.3)	0	(0.0)		
White	1859	(59.2)	1859	(59.2)	0	(0.0)	835	(61.9)	835	(61.9)	0	(0.0)	1024	(56.8)	1024	(56.8)	0	(0.0)		
Sex																				
M	2301	(47.6)	2301	(47.6)	0	(0.0)														
F	3205	(52.4)	3205	(52.4)	0	(0.0)														
BMI (kg/m^2)																			<0.001	<0.001
<25	1346	(30.1)	1349	(30.1)	3	(0.0)	594	(26.5)	595	(26.6)	1	(0.1)	752	(33.4)	754	(33.3)	2	(-0.1)		
25-29	1875	(34.4)	1879	(34.4)	4	(0.0)	903	(40.8)	905	(40.7)	2	(-0.1)	972	(28.6)	974	(28.6)	2	(0.0)		
30+	2267	(35.5)	2278	(35.5)	11	(0.0)	799	(32.7)	801	(32.6)	2	(-0.1)	1468	(38.0)	1477	(38.1)	9	(0.1)		
Type II diabetes																				
	601	(7.8)	604	(7.8)	3	(0.0)	244	(7.9)	245	(7.9)	1	(0.0)	357	(7.8)	359	(7.8)	2	(0.0)	0.888	0.904
Cardiac disease																				
	552	(9.0)	552	(9.0)	0	(0.0)	248	(10.2)	248	(10.1)	0	(-0.1)	304	(7.9)	304	(7.9)	0	(0.0)	0.056	0.056
Diuretic use																				
	814	(10.8)	814	(10.8)	0	(0.0)	255	(8.0)	255	(8.0)	0	(0.0)	559	(13.4)	559	(13.4)	0	(0.0)	<0.001	<0.001

[5] The published age breakdowns were 30-39, 40-49, 50-59, and 60-79 years, which presumes all 5506 subjects were within the age limits of 30-79 years. However, in archived data, 7 of the 5506 subjects were aged 27.0 – 29.4 years, and 5 were aged 80.0 – 82.9 years. The DCC has acknowledged the discrepancies in categorical age.

DSIC Results: Nocturia prevalence. Nocturia was present in 28.4% of BACH participants, which exactly matched the published prevalence of nocturia. Observed numbers of subjects with nocturia varied in DSIC (n=1865) versus published (n=1872) results (0.4% difference). The weighted prevalence of nocturia by covariate breakdown (age, race/ethnicity, gender, BMI, Type II diabetes, cardiac disease, and diuretic use) closely matched published breakdowns within two-tenths of a percentage point [Table 2]. The DCC has confirmed that differences in observed versus published numbers of nocturia, by covariate breakdown, are due to the inclusion of multiply imputed missing data in published results.[6] The adjusted multivariate model for nocturia predictors also closely matched published results [Table 3].

References

[1] FitzGerald MP, Litman HJ, Link CL, McKinlay JB for the BACH Survey Investigators. The Association of Nocturia With Cardiac Disease, Diabetes, Body Mass Index, Age and Diuretic Use: Results from the BACH Survey. The Journal of Urology 177 [Apr 2007]: 1385-89.

[6] Confirmed via E-Mail communication with the DCC on 01/24/08.

Table 2. Nocturia in the BACH survey overall, and by age group, gender, and race/ethnicity: Archived vs. Published Results
(published results extracted from Table 2 in Fitzgerald, MP, 2007: p. 1388)

	No. Overall (weighted %)						OR (95% CI)							P value	
	Archived		Published		Difference		Archived			Published			Difference			Archived	Published
Overall	1865	(28.4)	1872	(28.4)	7	(0.0)											
Age																<0.001	<0.001
<39	316	(20.0)	316	(19.9)	0	(-0.1)	1	(referent)		1	(referent)						
40-49	431	(25.9)	434	(26.0)	3	(0.1)	1.40	(1.02,	1.92)	1.41	(1.03,	1.93)	0.01	(0.01,	0.01)		
50-59	486	(33.3)	485	(33.2)	-1	(-0.1)	2.00	(1.50,	2.67)	1.99	(1.50,	2.66)	-0.01	(0.00,	-0.01)		
60+	632	(41.0)	637	(41.2)	5	(0.2)	2.79	(2.05,	3.79)	2.81	(2.07,	3.82)	0.02	(0.02,	0.03)		
Race/ethnicity																<0.001	<0.001
Black	722	(38.6)	725	(38.5)	3	(-0.1)	2.08	(1.71,	2.53)	2.07	(1.70,	2.51)	-0.01	(-0.01,	-0.02)		
Hispanic	627	(30.7)	628	(30.7)	1	(0.0)	1.47	(1.17,	1.84)	1.46	(1.17,	1.83)	-0.01	(0.00,	-0.01)		
White	516	(23.2)	519	(23.2)	3	(0.0)	1	(referent)		1	(referent)						
Sex																0.003	0.003
M	681	(25.3)	684	(25.2)	3	(-0.1)	0.74	(0.61,	0.91)	0.74	(0.61,	0.90)	0.00	(0.00,	-0.01)		
F	1184	(31.3)	1188	(31.3)	4	(0.0)	1	(referent)		1	(referent)						
BMI (kg/m^2)																<0.001	<0.001
<25	343	(20.7)	346	(20.6)	3	(-0.1)	1	(referent)		1	(referent)						
25-29	560	(26.9)	563	(26.9)	3	(0.0)	1.41	(1.11,	1.78)	1.42	(1.12,	1.79)	0.01	(0.01,	0.01)		
30+	955	(36.4)	963	(36.5)	8	(0.1)	2.19	(1.75,	2.75)	2.21	(1.76,	2.77)	0.02	(0.01,	0.02)		
Type II diabetes																<0.001	<0.001
Yes	320	(50.4)	322	(50.3)	2	(-0.1)	2.81	(2.05,	3.83)	2.80	(1.05,	3.81)	-0.01	(-1.00,	-0.02)		
No	1539	(26.5)	1550	(26.6)	11	(0.1)	1	(referent)		1	(referent)						
Cardiac disease																<0.001	<0.001
Yes	299	(45.4)	300	(45.4)	1	(0.0)	2.29	(1.72,	3.03)	2.28	(1.72,	3.03)	-0.01	(0.00,	0.00)		
No	1557	(26.7)	1572	(26.8)	15	(0.1)	1	(referent)		1	(referent)						
Diuretic use																<0.001	<0.001
Yes	420	(48.5)	422	(48.4)	2	(-0.1)	2.68	(2.14,	3.36)	2.66	(2.13,	3.34)	-0.02	(-0.01,	-0.02)		
No	1445	(26.0)	1451	(26.0)	6	(0.0)	1	(referent)		1	(referent)						

Table 3. Multivariate model for nocturia predictors, adjusting for covariates: Archived vs. Published Results

(published results extracted from Table 3 in Fitzgerald, MP, 2007: p. 1388)

	OR (95% CI)						P value	
	Archived			Published			Archived	Published
Age							<0.001	<0.001
<39	1	(referent)		1	(referent)			
40-49	1.25	(0.90,	1.74)	1.27	(0.92,	1.76)		
50-59	1.68	(1.24,	2.28)	1.67	(1.23,	2.27)		
60+	2.32	(1.63,	3.29)	2.33	(1.65,	3.30)		
Race/ethnicity							<0.001	<0.001
Black	1.90	(1.54,	2.33)	1.89	(1.53,	2.32)		
Hispanic	1.64	(1.29,	2.10)	1.6	(1.26,	2.04)		
White	1	(referent)		1	(referent)			
Sex							0.038	0.025
M	0.81	(0.66,	0.99)	0.79	(0.65,	0.97)		
F	1	(referent)		1	(referent)			
BMI (kg/m^2)							<0.001	<0.001
<25	1	(referent)		1	(referent)			
25-29	1.23	(0.96,	1.58)	1.25	(0.97,	1.60)		
30+	1.64	(1.28,	2.10)	1.65	(1.29,	2.11)		
Type II diabetes							0.005	0.003
Yes	1.64	(1.17,	2.31)	1.67	(1.20,	2.33)		
No	1	(referent)		1	(referent)			
Cardiac disease							0.047	0.043
Yes	1.37	(1.00,	1.86)	1.37	(1.01,	1.87)		
No	1	(referent)		1	(referent)			
Diuretic use							0.006	0.009
Yes	1.41	(1.10,	1.80)	1.38	(1.08,	1.75)		
No	1	(referent)		1	(referent)			

Difference		
0.02	(0.02,	0.02)
-0.01	(-0.01,	-0.01)
0.01	(0.02,	0.01)
-0.01	(-0.01,	-0.01)
-0.04	(-0.03,	-0.06)
-0.02	(-0.01,	-0.02)
0.02	(0.01,	0.02)
0.01	(0.01,	0.01)
0.03	(0.03,	0.02)
0.00	(0.01,	0.01)
-0.03	(-0.02,	-0.05)

Attachment 1

“The full text of the article referenced will be provided to approved data requestors along with the data archived.”

Mary P. FitzGerald, Heather J. Litman, Carol L. Link and John B. McKinlay for the BACH Survey Investigators. **The Association of Nocturia With Cardiac Disease, Diabetes, Body Mass Index, Age and Diuretic Use: Results from the BACH Survey**
The Journal of Urology 177 [Apr 2007]: 1385-89

Attachment 2

SAS 9.1 and *SAS-Callable SUDAAN 9.0.1* Log for programming code submitted for the replication of results in Tables 1,2, and 3 of Fitzgerald MP, et.al. [Apr 2007]

```
1                                          The SAS System          19:12 Wednesday, March
26, 2008

NOTE: Copyright (c) 2002-2003 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) 9.1 (TS1M3)
      Licensed to RESEARCH TRIANGLE INSTITUTE, Site 0047670011.
NOTE: This session is executing on the XP_PRO  platform.



NOTE: SAS 9.1.3 Service Pack 4

NOTE: SAS initialization used:
      real time           3.26 seconds
      cpu time            0.29 seconds

1          ************************************************************
2          * BACH DSIC.sas                                            *
3          * Purpose:  to perform Data Set Integrity Analyses         *
4          * on BACH study legacy dataset                             *
5          * comparison study paper: Fitzgerald, 2007 Apr (J.Urology)*
6          * Programmed by: S. Tan                                    *
7          ************************************************************;
8          options ps=60 ls=78 nonumber formchar='|----|+\---+=|-^<>*' mprint
orientation=portrait
8        ! ;
9
10         libname bach 'Z:\05_Users\Sylvia\BACH\data';
NOTE: Libref BACH was successfully assigned as follows:
      Engine:        V9
      Physical Name: Z:\05_Users\Sylvia\BACH\data
11         libname library 'Z:\05_Users\Sylvia\BACH\data';
NOTE: Libname LIBRARY refers to the same physical library as BACH.
NOTE: Libref LIBRARY was successfully assigned as follows:
      Engine:        V9
      Physical Name: Z:\05_Users\Sylvia\BACH\data
12
13         proc format;
14           value re_num 0='W' 1='B' 2='H';
NOTE: Format RE_NUM has been output.
15
16         /* proc contents position data=bach.repositmain2; run; */
17
18         * create calculated variables from survey dataset *;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.10 seconds
      cpu time            0.00 seconds


19         data bachdata; set bach.repositmain2;
20           agecat=1+(age>=40)+(age>=50)+(age>=60);
21             wtkg=wght00;
22            if wght00<0 then wtkg=wghts00/2.2;
23            * self reported weight in kg if measured wt is missing *;
24             htcm=hght00;
25            if hght00<0 then htcm=(12*HTS_FT00 +HTS_IN00)*2.54;
```

```
26             bmi=wtkg/(htcm*htcm/10000);  ***weight kg / ht2 in m***;
27          bmicat=1+(bmi>=25)+(bmi>=30);
28            if bmi<0 then bmicat=.;
29          if chf=1 or cabg=1 or mi=1 or angina=1 then cardiod=1;
30            else if chf=2 and cabg=2 and mi=2 and angina=2 then cardiod=0;
31          if re="W" then raceeth=0;
32            else if re="B" then raceeth=1;
33            else if re="H" then raceeth=2;
34          if 4<=nghtufrq<=6 then nightfreq=1; else if 1<=nghtufrq<=3 then nightfreq=0;
35          if urinnt>=2 then twiceurin=1; else if urinnt in (0,1) then twiceurin=0;
36          if nightfreq=1 or twiceurin=1 then nocturia=100;
37          else if nightfreq=0 and twiceurin=0 then nocturia=0;
38          nocturia1=nocturia; if nocturia=100 then nocturia1=1;

NOTE: Missing values were generated as a result of performing an operation on missing
values.
      Each place is given by: (Number of times) at (Line):(Column).
      14 at 22:33   11 at 25:29   7 at 26:13    11 at 26:19
NOTE: There were 5506 observations read from the data set BACH.REPOSITMAIN2.
NOTE: The data set WORK.BACHDATA has 5506 observations and 594 variables.
NOTE: DATA statement used (Total process time):
      real time           2:17.98
      cpu time            0.68 seconds


39          data bachdata; set bachdata;
40           if nightfreq=1 and twiceurin=1 then noctlev=3;
41           else if nightfreq=1 then noctlev=2;
42           else if twiceurin=1 then noctlev=1;
43           else if nocturia=0 then noctlev=0;

NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The data set WORK.BACHDATA has 5506 observations and 595 variables.
NOTE: DATA statement used (Total process time):
      real time           21.88 seconds
      cpu time            0.40 seconds


44          proc sort data=bachdata; by id;
45
46          * sent under separate cover by DCC 1-25-08 *;

NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The data set WORK.BACHDATA has 5506 observations and 595 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           2.03 seconds
      cpu time            0.25 seconds


47          data diuretic; set bach.diuretic;

NOTE: There were 5506 observations read from the data set BACH.DIURETIC.
NOTE: The data set WORK.DIURETIC has 5506 observations and 2 variables.
NOTE: DATA statement used (Total process time):
```

```
      real time           0.87 seconds
      cpu time            0.01 seconds


48          proc sort; by id;

NOTE: There were 5506 observations read from the data set WORK.DIURETIC.
NOTE: The data set WORK.DIURETIC has 5506 observations and 2 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.01 seconds
      cpu time            0.01 seconds


49         data bachdata; merge bachdata diuretic;
50           by id; run;

NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: There were 5506 observations read from the data set WORK.DIURETIC.
NOTE: The data set WORK.BACHDATA has 5506 observations and 596 variables.
NOTE: DATA statement used (Total process time):
      real time           22.66 seconds
      cpu time            0.54 seconds


51
52         proc sort data=bachdata; by strata psunit;
53         title Results for DSIC Table 1;
54         %macro crosstabs(classvar,tablevar);
55           proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
56           nest strata psunit;
57           weight wtr;
58           class &classvar / nofreq;
59           tables &tablevar;
60           print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs
61             rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
62           test chisq llchisq;
63           run;
64         %mend;
65         * for table 1 *;
66         %crosstabs(agecat gender,gender*agecat);

NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The data set WORK.BACHDATA has 5506 observations and 596 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           1.87 seconds
      cpu time            0.25 seconds


MPRINT(CROSSTABS):   proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(CROSSTABS):   nest strata psunit;
MPRINT(CROSSTABS):   weight wtr;
MPRINT(CROSSTABS):   class agecat gender / nofreq;
MPRINT(CROSSTABS):   tables gender*agecat;
```

```
MPRINT(CROSSTABS):   print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
MPRINT(CROSSTABS):   test chisq llchisq;
MPRINT(CROSSTABS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE CROSSTAB printed pages 1-3.
NOTE: PROCEDURE CROSSTAB used (Total process time):
      real time           20.40 seconds
      cpu time            0.56 seconds


67         %crosstabs(bmicat gender,gender*bmicat);
MPRINT(CROSSTABS):   proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(CROSSTABS):   nest strata psunit;
MPRINT(CROSSTABS):   weight wtr;
MPRINT(CROSSTABS):   class bmicat gender / nofreq;
MPRINT(CROSSTABS):   tables gender*bmicat;
MPRINT(CROSSTABS):   print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
MPRINT(CROSSTABS):   test chisq llchisq;
MPRINT(CROSSTABS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE CROSSTAB printed pages 4-6.
```

```
NOTE: PROCEDURE CROSSTAB used (Total process time):
      real time           20.31 seconds
      cpu time            0.42 seconds


68         %crosstabs(raceeth gender,gender*raceeth);
MPRINT(CROSSTABS):   proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(CROSSTABS):   nest strata psunit;
MPRINT(CROSSTABS):   weight wtr;
MPRINT(CROSSTABS):   class raceeth gender / nofreq;
MPRINT(CROSSTABS):   tables gender*raceeth;
MPRINT(CROSSTABS):   print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
MPRINT(CROSSTABS):   test chisq llchisq;
MPRINT(CROSSTABS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE CROSSTAB printed pages 7-9.
NOTE: PROCEDURE CROSSTAB used (Total process time):
      real time           21.90 seconds
      cpu time            0.43 seconds


69         %crosstabs(diab2 gender,gender*diab2);
MPRINT(CROSSTABS):   proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(CROSSTABS):   nest strata psunit;
MPRINT(CROSSTABS):   weight wtr;
MPRINT(CROSSTABS):   class diab2 gender / nofreq;
MPRINT(CROSSTABS):   tables gender*diab2;
MPRINT(CROSSTABS):   print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
MPRINT(CROSSTABS):   test chisq llchisq;
MPRINT(CROSSTABS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE CROSSTAB printed pages 10-12.
NOTE: PROCEDURE CROSSTAB used (Total process time):
      real time           20.15 seconds
      cpu time            0.34 seconds


70         %crosstabs(cardiod gender,gender*cardiod);
MPRINT(CROSSTABS):   proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(CROSSTABS):   nest strata psunit;
MPRINT(CROSSTABS):   weight wtr;
MPRINT(CROSSTABS):   class cardiod gender / nofreq;
MPRINT(CROSSTABS):   tables gender*cardiod;
MPRINT(CROSSTABS):   print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
MPRINT(CROSSTABS):   test chisq llchisq;
MPRINT(CROSSTABS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE CROSSTAB printed pages 13-15.
NOTE: PROCEDURE CROSSTAB used (Total process time):
      real time           20.17 seconds
      cpu time            0.42 seconds


71         %crosstabs(diuretic01 gender,gender*diuretic01);
MPRINT(CROSSTABS):   proc crosstab data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(CROSSTABS):   nest strata psunit;
MPRINT(CROSSTABS):   weight wtr;
MPRINT(CROSSTABS):   class diuretic01 gender / nofreq;
```

```
MPRINT(CROSSTABS):   tables gender*diuretic01;
MPRINT(CROSSTABS):   print nsum rowper serow colper secol atlev1 atlev2 chisqp
llchisqp/style=nchs rowperfmt=f7.1 serowfmt=f7.1 colperfmt=f7.1 secolfmt=f7.1;
MPRINT(CROSSTABS):   test chisq llchisq;
MPRINT(CROSSTABS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE CROSSTAB printed pages 16-18.
NOTE: PROCEDURE CROSSTAB used (Total process time):
      real time           21.17 seconds
      cpu time            0.37 seconds


72
73
74         * for table 2 *;
75         title Results for DSIC Table 2;
76         proc freq; tables nocturia*(agecat bmicat gender raceeth diab2 cardiod
76       ! diuretic01)/missing; run;

NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE FREQ printed pages 19-25.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.84 seconds
      cpu time            0.03 seconds


77         %macro prevs(classvar, tablevar);
78          proc descript data=bachdata atlevel1=1 atlevel2=2 deft2; * WR is default
design *;
79          nest strata psunit;
80          weight wtr;
81          class &classvar / nofreq;
82          var nocturia;
83          tables &tablevar;
84          print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
85          run;
86         %mend;
87         %prevs(agecat,agecat);
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
```

```
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class agecat / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables agecat;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 26-27.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.04 seconds
      cpu time            0.35 seconds


88         %prevs(bmicat,bmicat);
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class bmicat / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables bmicat;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;


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Opened SAS data file BACHDATA for reading.
```

```
NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 28-29.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.01 seconds
      cpu time            0.50 seconds


89         %prevs(gender,gender);
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class gender / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables gender;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 30-31.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.04 seconds
      cpu time            0.39 seconds


90         %prevs(raceeth,raceeth);
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class raceeth / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables raceeth;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;
```

```
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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 32-33.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.01 seconds
      cpu time            0.40 seconds


91         %prevs(diab2,diab2);
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class diab2 / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables diab2;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 34-35.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.04 seconds
      cpu time            0.54 seconds


92         %prevs(cardiod,cardiod);
```

```
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class cardiod / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables cardiod;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 36-37.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.12 seconds
      cpu time            0.53 seconds


93         %prevs(diuretic01,diuretic01);
MPRINT(PREVS):   proc descript data=bachdata atlevel1=1 atlevel2=2 deft2;
MPRINT(PREVS):   * WR is default design *;
MPRINT(PREVS):   nest strata psunit;
MPRINT(PREVS):   weight wtr;
MPRINT(PREVS):   class diuretic01 / nofreq;
MPRINT(PREVS):   var nocturia;
MPRINT(PREVS):   tables diuretic01;
MPRINT(PREVS):   print nsum mean semean atlev1 deffmean /style=nchs meanfmt=f7.1
semeanfmt=f7.1;
MPRINT(PREVS):   run;


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```
Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE DESCRIPT printed pages 38-39.
NOTE: PROCEDURE DESCRIPT used (Total process time):
      real time           20.13 seconds
      cpu time            0.45 seconds


94
95         %macro ors(classvar, predvar, reflev);
96             proc rlogist data=bachdata deft2;
97             nest strata psunit;
98             weight wtr;
99             class &classvar / nofreq;
100            reflevel &predvar = &reflev;
101            model nocturia1=&predvar;
102            print/betas=default risk=default tests=default;
103            run;
104         %mend;
105        %ors(agecat,agecat,1);
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class agecat / nofreq;
MPRINT(ORS):   reflevel agecat = 1;
MPRINT(ORS):   model nocturia1=agecat;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 40-44.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.43 seconds
      cpu time            0.73 seconds


106        %ors(bmicat,bmicat,1);
```

```
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class bmicat / nofreq;
MPRINT(ORS):   reflevel bmicat = 1;
MPRINT(ORS):   model nocturia1=bmicat;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 45-49.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.43 seconds
      cpu time            0.61 seconds


107        %ors(gender,gender,2); * reflevel = 2 *;
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class gender / nofreq;
MPRINT(ORS):   reflevel gender = 2;
MPRINT(ORS):   model nocturia1=gender;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.
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```
NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 50-54.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.29 seconds
      cpu time            0.67 seconds


108        %ors(raceeth,raceeth,0);
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class raceeth / nofreq;
MPRINT(ORS):   reflevel raceeth = 0;
MPRINT(ORS):   model nocturia1=raceeth;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 55-59.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.35 seconds
      cpu time            0.59 seconds


109        %ors(diab2,diab2,2);
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class diab2 / nofreq;
MPRINT(ORS):   reflevel diab2 = 2;
MPRINT(ORS):   model nocturia1=diab2;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 60-64.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.67 seconds
      cpu time            0.67 seconds


110        %ors(cardiod,cardiod,0);
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class cardiod / nofreq;
MPRINT(ORS):   reflevel cardiod = 0;
MPRINT(ORS):   model nocturia1=cardiod;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 65-69.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.48 seconds
      cpu time            0.57 seconds


111        %ors(diuretic01,diuretic01,0);
MPRINT(ORS):   proc rlogist data=bachdata deft2;
MPRINT(ORS):   nest strata psunit;
MPRINT(ORS):   weight wtr;
MPRINT(ORS):   class diuretic01 / nofreq;
```

```
MPRINT(ORS):   reflevel diuretic01 = 0;
MPRINT(ORS):   model nocturia1=diuretic01;
MPRINT(ORS):   print/betas=default risk=default tests=default;
MPRINT(ORS):   run;


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Opened SAS data file BACHDATA for reading.


NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 70-74.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.20 seconds
      cpu time            0.65 seconds


112
113        * for table 3 (final model) *;
114        title Results for DSIC Table 3;
115        proc rlogist data=bachdata deft2;
116          nest strata psunit;
117            weight wtr;
118            class agecat raceeth gender bmicat diab2 cardiod diuretic01/ nofreq;
119            reflevel agecat=1 raceeth=0 gender=2 bmicat=1 diab2=2 cardiod=0
diuretic01=0;
120            model nocturia1=agecat raceeth gender bmicat diab2 cardiod diuretic01;
121            print/betas=default risk=default tests=default;
122         rformat gender X4101F.;
123         rformat raceeth re_num.;
124        run;


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Opened SAS data file BACHDATA for reading.
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```
NOTE: There were 5506 observations read from the data set WORK.BACHDATA.
NOTE: The PROCEDURE RLOGIST printed pages 75-79.
NOTE: PROCEDURE RLOGIST used (Total process time):
      real time           20.59 seconds
      cpu time            0.87 seconds


125

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414
NOTE: The SAS System used:
      real time           10:22.33
      cpu time            13.93 seconds
```

Attachment 3

SAS 9.1 and *SAS-Callable SUDAAN 9.0.1* Output for programming code submitted for the replication of results in Tables 1,2, and 3 of Fitzgerald MP, et.al. [Apr 2007]

S U D A A N
Software for the Statistical Analysis of Correlated Data
Copyright Research Triangle Institute February 2005
Release 9.0.1

Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: FOIA: A5. Sex of respondent, AGECAT.

FOIA: A5. Sex of respondent AGECAT	Sample Size	Row Percent	SE Row Percent	Col Percent	SE Col Percent	Count at Level 1	Count at Level 2
Total							
Total	5506	100.0	0.0	100.0	0.0	12	741
1	1407	35.2	1.4	100.0	0.0	12	489
2	1499	25.1	1.1	100.0	0.0	12	523
3	1289	18.1	0.8	100.0	0.0	11	493
4	1311	21.6	1.2	100.0	0.0	12	461
1: Male							
Total	2301	100.0	0.0	47.6	1.1	12	636
1	615	37.2	1.9	50.2	2.3	12	344
2	659	25.8	1.5	49.0	2.1	12	365
3	510	17.8	1.2	46.8	1.8	11	305
4	517	19.2	1.3	42.3	2.0	12	292
2: Female							
Total	3205	100.0	0.0	52.4	1.1	11	677
1	792	33.5	1.7	49.8	2.3	11	365
2	840	24.4	1.4	51.0	2.1	11	397
3	779	18.4	0.9	53.2	1.8	11	406
4	794	23.7	1.5	57.7	2.0	11	369

Variance Estimation Method: Taylor Series (WR)
Chi Square Test of Independence for FOIA: A5. Sex of respondent and AGECAT

P-value ChiSq	P-value LLChiSq
0.0252	0.0229

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: FOIA: A5. Sex of respondent, BMICAT.

FOIA: A5. Sex of respondent BMICAT	Sample Size	Row Percent	SE Row Percent	Col Percent	SE Col Percent	Count at Level 1	Count at Level 2
Total							
Total	5488	100.0	0.0	100.0	0.0	12	740
1	1346	30.1	1.2	100.0	0.0	11	515
2	1875	34.4	1.0	100.0	0.0	12	577
3	2267	35.5	1.2	100.0	0.0	12	585
1: Male							
Total	2296	100.0	0.0	47.6	1.1	12	636
1	594	26.5	1.5	41.9	2.0	11	334
2	903	40.8	1.5	56.4	1.8	12	443
3	799	32.7	1.6	43.8	1.9	12	399
2: Female							
Total	3192	100.0	0.0	52.4	1.1	11	676
1	752	33.4	1.6	58.1	2.0	11	385
2	972	28.6	1.3	43.6	1.8	11	444
3	1468	38.0	1.6	56.2	1.9	11	507

Variance Estimation Method: Taylor Series (WR)
Chi Square Test of Independence for FOIA: A5. Sex of respondent and BMICAT

P-value ChiSq	P-value LLChiSq
0.0000	0.0000

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: FOIA: A5. Sex of respondent, RACEETH.

FOIA: A5. Sex of respondent RACEETH	Sample Size	Row Percent	SE Row Percent	Col Percent	SE Col Percent	Count at Level 1	Count at Level 2
Total							
Total	5506	100.0	0.0	100.0	0.0	12	741
0	1859	59.2	1.7	100.0	0.0	12	467
1	1770	27.6	1.4	100.0	0.0	12	400
2	1877	13.2	0.8	100.0	0.0	11	422
1: Male							
Total	2301	100.0	0.0	47.6	1.1	12	636
0	835	61.9	2.0	49.7	1.7	12	365
1	700	25.0	1.7	43.2	1.6	12	298
2	766	13.0	0.9	47.0	2.0	11	316
2: Female							
Total	3205	100.0	0.0	52.4	1.1	11	677
0	1024	56.8	2.0	50.3	1.7	11	384
1	1070	29.9	1.6	56.8	1.6	11	332
2	1111	13.3	1.0	53.0	2.0	10	353

Variance Estimation Method: Taylor Series (WR)
Chi Square Test of Independence for FOIA: A5. Sex of respondent and RACEETH

P-value ChiSq	P-value LLChiSq
0.0239	0.0251

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: FOIA: A5. Sex of respondent, FOID: E3b. Non-insulin-dependent or adult-onset diabetes.

FOIA: A5. Sex of respondent / FOID: E3b. Non-insulin-dependent or adult-onset diabetes	Sample Size	Row Percent	SE Row Percent	Col Percent	SE Col Percent	Count at Level 1	Count at Level 2
Total							
Total	5485	100.0	0.0	100.0	0.0	12	741
1: Yes	601	7.8	0.6	100.0	0.0	12	304
2: No	4884	92.2	0.6	100.0	0.0	12	732
1: Male							
Total	2292	100.0	0.0	47.5	1.1	12	635
1: Yes	244	7.9	0.9	48.0	3.6	11	176
2: No	2048	92.1	0.9	47.5	1.2	12	613
2: Female							
Total	3193	100.0	0.0	52.5	1.1	11	677
1: Yes	357	7.8	0.7	52.0	3.6	11	214
2: No	2836	92.2	0.7	52.5	1.2	11	661

Variance Estimation Method: Taylor Series (WR)
Chi Square Test of Independence for FOIA: A5. Sex of respondent and FOID: E3b. Non-insulin-dependent or adult-onset diabetes

P-value ChiSq	P-value LLChiSq
0.8875	0.8873

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: FOIA: A5. Sex of respondent, CARDIOD.

FOIA: A5. Sex of respondent CARDIOD	Sample Size	Row Percent	SE Row Percent	Col Percent	SE Col Percent	Count at Level 1	Count at Level 2
Total							
Total	5484	100.0	0.0	100.0	0.0	12	741
0	4932	91.0	0.6	100.0	0.0	12	732
1	552	9.0	0.6	100.0	0.0	12	304
1: Male							
Total	2293	100.0	0.0	47.6	1.1	12	636
0	2045	89.8	0.9	47.0	1.2	12	611
1	248	10.2	0.9	53.8	3.2	12	187
2: Female							
Total	3191	100.0	0.0	52.4	1.1	11	677
0	2887	92.1	0.7	53.0	1.2	11	664
1	304	7.9	0.7	46.2	3.2	10	200

Variance Estimation Method: Taylor Series (WR)
Chi Square Test of Independence for FOIA: A5. Sex of respondent and CARDIOD

P-value ChiSq	P-value LLChiSq
0.0557	0.0534

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: FOIA: A5. Sex of respondent, DIURETIC01.

FOIA: A5. Sex of respondent / DIURETIC01	Sample Size	Row Percent	SE Row Percent	Col Percent	SE Col Percent	Count at Level 1	Count at Level 2
Total							
Total	5506	100.0	0.0	100.0	0.0	12	741
0	4692	89.2	0.6	100.0	0.0	12	726
1	814	10.8	0.6	100.0	0.0	12	371
1: Male							
Total	2301	100.0	0.0	47.6	1.1	12	636
0	2046	92.0	0.7	49.1	1.2	12	612
1	255	8.0	0.7	35.2	2.3	12	181
2: Female							
Total	3205	100.0	0.0	52.4	1.1	11	677
0	2646	86.6	0.9	50.9	1.2	11	651
1	559	13.4	0.9	64.8	2.3	11	294

Variance Estimation Method: Taylor Series (WR)
Chi Square Test of Independence for FOIA: A5. Sex of respondent and DIURETIC01

P-value ChiSq	P-value LLChiSq
0.0000	0.0000

The FREQ Procedure

Table of nocturia by agecat

nocturia agecat

Frequency Percent Row Pct Col Pct	1	2	3	4	Total
.	5 0.09 25.00 0.36	5 0.09 25.00 0.33	4 0.07 20.00 0.31	6 0.11 30.00 0.46	20 0.36
0	1086 19.72 29.99 77.19	1063 19.31 29.36 70.91	799 14.51 22.07 61.99	673 12.22 18.59 51.33	3621 65.76
100	316 5.74 16.94 22.46	431 7.83 23.11 28.75	486 8.83 26.06 37.70	632 11.48 33.89 48.21	1865 33.87
Total	1407 25.55	1499 27.22	1289 23.41	1311 23.81	5506 100.00

The FREQ Procedure

Table of nocturia by bmicat

nocturia	bmicat				
Frequency Percent Row Pct Col Pct	.	1	2	3	Total
.	0 0.00 0.00 0.00	9 0.16 45.00 0.67	5 0.09 25.00 0.27	6 0.11 30.00 0.26	20 0.36
0	11 0.20 0.30 61.11	994 18.05 27.45 73.85	1310 23.79 36.18 69.87	1306 23.72 36.07 57.61	3621 65.76
100	7 0.13 0.38 38.89	343 6.23 18.39 25.48	560 10.17 30.03 29.87	955 17.34 51.21 42.13	1865 33.87
Total	18 0.33	1346 24.45	1875 34.05	2267 41.17	5506 100.00

The FREQ Procedure

Table of nocturia by GENDER

nocturia GENDER(FOIA: A5. Sex of respondent)

Frequency Percent Row Pct Col Pct	1: Male	2: Female	Total
.	11 0.20 55.00 0.48	9 0.16 45.00 0.28	20 0.36
0	1609 29.22 44.44 69.93	2012 36.54 55.56 62.78	3621 65.76
100	681 12.37 36.51 29.60	1184 21.50 63.49 36.94	1865 33.87
Total	2301 41.79	3205 58.21	5506 100.00

The FREQ Procedure

Table of nocturia by raceeth

nocturia	raceeth			
Frequency / Percent / Row Pct / Col Pct	0	1	2	Total
.	6 0.11 30.00 0.32	8 0.15 40.00 0.45	6 0.11 30.00 0.32	20 0.36
0	1337 24.28 36.92 71.92	1040 18.89 28.72 58.76	1244 22.59 34.36 66.28	3621 65.76
100	516 9.37 27.67 27.76	722 13.11 38.71 40.79	627 11.39 33.62 33.40	1865 33.87
Total	1859 33.76	1770 32.15	1877 34.09	5506 100.00

The FREQ Procedure

Table of nocturia by DIAB2

nocturia

	DIAB2(FOID: E3b. Non-insulin-dependent or adult-onset diabetes)				
Frequency Percent Row Pct Col Pct	.	DK:O	1: Yes	2: No	Total
.	2 0.04 10.00 100.00	2 0.04 10.00 10.53	2 0.04 10.00 0.33	14 0.25 70.00 0.29	20 0.36
0	0 0.00 0.00 0.00	11 0.20 0.30 57.89	279 5.07 7.71 46.42	3331 60.50 91.99 68.20	3621 65.76
100	0 0.00 0.00 0.00	6 0.11 0.32 31.58	320 5.81 17.16 53.24	1539 27.95 82.52 31.51	1865 33.87
Total	2 0.04	19 0.35	601 10.92	4884 88.70	5506 100.00

The FREQ Procedure

Table of nocturia by cardiod

nocturia	cardiod			
Frequency / Percent / Row Pct / Col Pct	.	0	1	Total
.	2 0.04 10.00 9.09	16 0.29 80.00 0.32	2 0.04 10.00 0.36	20 0.36
0	11 0.20 0.30 50.00	3359 61.01 92.76 68.11	251 4.56 6.93 45.47	3621 65.76
100	9 0.16 0.48 40.91	1557 28.28 83.49 31.57	299 5.43 16.03 54.17	1865 33.87
Total	22 0.40	4932 89.58	552 10.03	5506 100.00

The FREQ Procedure

Table of nocturia by diuretic01

nocturia	diuretic01		
Frequency / Percent / Row Pct / Col Pct	0	1	Total
.	15 0.27 75.00 0.32	5 0.09 25.00 0.61	20 0.36
0	3232 58.70 89.26 68.88	389 7.07 10.74 47.79	3621 65.76
100	1445 26.24 77.48 30.80	420 7.63 22.52 51.60	1865 33.87
Total	4692 85.22	814 14.78	5506 100.00

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
By: Variable, AGECAT.

Variable AGECAT	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5486	28.4	1.1	12	2.99
1	1402	20.0	2.0	12	3.46
2	1494	25.9	1.8	12	2.62
3	1285	33.3	2.0	11	2.25
4	1305	41.0	2.1	12	2.29

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
By: Variable, BMICAT.

Variable BMICAT	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5468	28.4	1.1	12	2.99
1	1337	20.7	1.5	11	1.89
2	1870	26.9	1.6	12	2.49
3	2261	36.4	1.8	12	3.05

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: Variable, FOIA: A5. Sex of respondent.

Variable / FOIA: A5. Sex of respondent	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5486	28.4	1.1	12	2.99
1: Male	2290	25.3	1.5	12	2.67
2: Female	3196	31.3	1.4	11	3.03

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
By: Variable, RACEETH.

Variable RACEETH	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5486	28.4	1.1	12	2.99
0	1853	23.2	1.4	12	1.93
1	1762	38.6	1.6	12	2.01
2	1871	30.7	2.0	11	3.38

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
by: Variable, FOID: E3b. Non-insulin-dependent or adult-onset diabetes.

Variable / FOID: E3b. Non-insulin-dependent or adult-onset diabetes	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5469	28.4	1.1	12	2.99
1: Yes	599	50.4	3.6	12	3.18
2: No	4870	26.5	1.1	12	2.94

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
By: Variable, CARDIOD.

Variable CARDIOD	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5466	28.4	1.1	12	3.00
0	4916	26.7	1.1	12	3.01
1	550	45.5	3.3	12	2.46

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Number of observations read : 5506 Weighted count : 262878
Denominator degrees of freedom : 729

Variance Estimation Method: Taylor Series (WR)
By: Variable, DIURETIC01.

Variable DIURETIC01	Sample Size	Mean	SE Mean	Count at Level 1	DEFF Mean #2
NOCTURIA					
Total	5486	28.4	1.1	12	2.99
0	4677	26.0	1.1	12	3.07
1	809	48.5	2.4	12	1.94

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```
Number of zero responses     :  3621
Number of non-zero responses :  1865

Independence parameters have converged in 5 iterations

Number of observations read       :   5506    Weighted count:   262878
Observations used in the analysis :   5486    Weighted count:   262108
Denominator degrees of freedom    :    729


Maximum number of estimable parameters for the model is  4

File BACHDATA contains  741 Clusters
 740 clusters were used to fit the model
Maximum cluster size is  59 records
Minimum cluster size is   1 records


Sample and Population Counts for Response Variable NOCTURIA1
  0:  Sample Count     3621    Population Count    187617
  1:  Sample Count     1865    Population Count     74491

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.031382

-2 * Normalized Log-Likelihood with Intercepts Only :  6548.92
-2 * Normalized Log-Likelihood Full Model          :  6374.00
Approximate Chi-Square (-2 * Log-L Ratio)          :   174.92
Degrees of Freedom                                 :        3

Note: The approximate Chi-Square is not adjusted for clustering.
      Refer to hypothesis test table for adjusted test.
```

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.39	4.78	0.12	-1.63	-1.14	-11.16
AGECAT						
1	0.00	.	0.00	0.00	0.00	.
2	0.34	3.71	0.16	0.02	0.65	2.08
3	0.69	2.78	0.15	0.41	0.98	4.73
4	1.03	3.61	0.16	0.72	1.33	6.58

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
AGECAT	
1	.
2	0.0376
3	0.0000
4	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Contrast.

Contrast	Degrees of Freedom	Wald F	P-value Wald F
OVERALL MODEL	4	77.59	0.0000
MODEL MINUS INTERCEPT	3	19.35	0.0000
INTERCEPT	.	.	.
AGECAT	3	19.35	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% OR Limit	Upper 95% OR Limit
Intercept	0.25	0.20	0.32
AGECAT			
1	1.00	1.00	1.00
2	1.40	1.02	1.92
3	2.00	1.50	2.67
4	2.79	2.05	3.79

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```
Number of zero responses     :  3610
Number of non-zero responses :  1858

Independence parameters have converged in 5 iterations

Number of observations read       :   5506    Weighted count:   262878
Observations used in the analysis :   5468    Weighted count:   261373
Denominator degrees of freedom    :    729


Maximum number of estimable parameters for the model is  3

File BACHDATA contains  741 Clusters
 739 clusters were used to fit the model
Maximum cluster size is  59 records
Minimum cluster size is   1 records


Sample and Population Counts for Response Variable NOCTURIA1
  0:  Sample Count     3610    Population Count    187195
  1:  Sample Count     1858    Population Count     74178

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.020160

-2 * Normalized Log-Likelihood with Intercepts Only :  6523.40
-2 * Normalized Log-Likelihood Full Model          :  6412.05
Approximate Chi-Square (-2 * Log-L Ratio)          :   111.36
Degrees of Freedom                                 :        2

Note: The approximate Chi-Square is not adjusted for clustering.
      Refer to hypothesis test table for adjusted test.
```

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.34	2.33	0.09	-1.53	-1.16	-14.47
BMICAT						
1	0.00	.	0.00	0.00	0.00	.
2	0.34	2.23	0.12	0.11	0.58	2.87
3	0.79	2.22	0.11	0.56	1.01	6.84

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
BMICAT	
1	.
2	0.0043
3	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Contrast.

Contrast	Degrees of Freedom	Wald F	P -value Wald F
OVERALL MODEL	3	121.91	0.0000
MODEL MINUS INTERCEPT	2	24.07	0.0000
INTERCEPT	.	.	.
BMICAT	2	24.07	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% Limit OR	Upper 95% Limit OR
Intercept	0.26	0.22	0.31
BMICAT			
1	1.00	1.00	1.00
2	1.41	1.11	1.78
3	2.19	1.75	2.75

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Number of zero responses : 3621
Number of non-zero responses : 1865

Independence parameters have converged in 5 iterations

Number of observations read : 5506 Weighted count: 262878
Observations used in the analysis : 5486 Weighted count: 262108
Denominator degrees of freedom : 729

Maximum number of estimable parameters for the model is 2

File BACHDATA contains 741 Clusters
740 clusters were used to fit the model
Maximum cluster size is 59 records
Minimum cluster size is 1 records

Sample and Population Counts for Response Variable NOCTURIA1
0: Sample Count 3621 Population Count 187617
1: Sample Count 1865 Population Count 74491

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.004365

-2 * Normalized Log-Likelihood with Intercepts Only : 6548.92
-2 * Normalized Log-Likelihood Full Model : 6524.92
Approximate Chi-Square (-2 * Log-L Ratio) : 24.00
Degrees of Freedom : 1

Note: The approximate Chi-Square is not adjusted for clustering.
Refer to hypothesis test table for adjusted test.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-0.79	2.73	0.07	-0.92	-0.66	-11.87
FOIA: A5. Sex of respondent						
1: Male	-0.29	2.75	0.10	-0.49	-0.10	-2.94
2: Female	0.00	.	0.00	0.00	0.00	.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
FOIA: A5. Sex of respondent	
1: Male	0.0033
2: Female	.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Contrast.

Contrast	Degrees of Freedom	Wald F	P-value Wald F
OVERALL MODEL	2	157.30	0.0000
MODEL MINUS INTERCEPT	1	8.67	0.0033
INTERCEPT	.	.	.
GENDER	1	8.67	0.0033

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% OR Limit	Upper 95% OR Limit
Intercept	0.45	0.40	0.52
FOIA: A5. Sex of respondent			
1: Male	0.74	0.61	0.91
2: Female	1.00	1.00	1.00

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Number of zero responses : 3621
Number of non-zero responses : 1865

Independence parameters have converged in 5 iterations

Number of observations read : 5506 Weighted count: 262878
Observations used in the analysis : 5486 Weighted count: 262108
Denominator degrees of freedom : 729

Maximum number of estimable parameters for the model is 3

File BACHDATA contains 741 Clusters
740 clusters were used to fit the model
Maximum cluster size is 59 records
Minimum cluster size is 1 records

Sample and Population Counts for Response Variable NOCTURIA1
0: Sample Count 3621 Population Count 187617
1: Sample Count 1865 Population Count 74491

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.021583

-2 * Normalized Log-Likelihood with Intercepts Only : 6548.92
-2 * Normalized Log-Likelihood Full Model : 6429.22
Approximate Chi-Square (-2 * Log-L Ratio) : 119.70
Degrees of Freedom : 2

Note: The approximate Chi-Square is not adjusted for clustering.
Refer to hypothesis test table for adjusted test.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.20	3.39	0.08	-1.35	-1.05	-15.66
RACEETH						
0	0.00	.	0.00	0.00	0.00	.
1	0.73	2.17	0.10	0.54	0.93	7.39
2	0.39	1.60	0.11	0.16	0.61	3.36

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
RACEETH	
0	.
1	0.0000
2	0.0008

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
By: Contrast.

Contrast	Degrees of Freedom	Wald F	P-value Wald F
OVERALL MODEL	3	107.55	0.0000
MODEL MINUS INTERCEPT	2	27.43	0.0000
INTERCEPT	.	.	.
RACEETH	2	27.43	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% OR Limit	Upper 95% OR Limit
Intercept	0.30	0.26	0.35
RACEETH			
0	1.00	1.00	1.00
1	2.08	1.71	2.53
2	1.47	1.17	1.84

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```
Number of zero responses     :  3610
Number of non-zero responses :  1859

Independence parameters have converged in 5 iterations

Number of observations read       :   5506    Weighted count:   262878
Observations used in the analysis :   5469    Weighted count:   261735
Denominator degrees of freedom    :    729


Maximum number of estimable parameters for the model is  2

File BACHDATA contains  741 Clusters
 740 clusters were used to fit the model
Maximum cluster size is  59 records
Minimum cluster size is   1 records


Sample and Population Counts for Response Variable NOCTURIA1
  0:  Sample Count     3610    Population Count    187374
  1:  Sample Count     1859    Population Count     74361

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.018081

-2 * Normalized Log-Likelihood with Intercepts Only :  6527.72
-2 * Normalized Log-Likelihood Full Model          :  6427.93
Approximate Chi-Square (-2 * Log-L Ratio)          :    99.79
Degrees of Freedom                                 :        1

Note: The approximate Chi-Square is not adjusted for clustering.
      Refer to hypothesis test table for adjusted test.
```

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.02	3.04	0.06	-1.13	-0.91	-18.30
FOID: E3b. Non-insulin-dependent or adult-onset diabetes						
1: Yes	1.03	2.43	0.16	0.72	1.34	6.50
2: No	0.00	.	0.00	0.00	0.00	.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
FOID: E3b. Non-insulin-dependent or adult-onset diabetes	
1: Yes	0.0000
2: No	.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Contrast.

Contrast	Degrees of Freedom	Wald F	P -value Wald F
OVERALL MODEL	2	167.83	0.0000
MODEL MINUS INTERCEPT	1	42.25	0.0000
INTERCEPT	.	.	.
DIAB2	1	42.25	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% OR Limit	Upper 95% OR Limit
Intercept	0.36	0.32	0.40
FOID: E3b. Non-insulin-dependent or adult-onset diabetes			
1: Yes	2.81	2.05	3.83
2: No	1.00	1.00	1.00

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```
Number of zero responses     :  3610
Number of non-zero responses :  1856

Independence parameters have converged in 5 iterations

Number of observations read       :   5506    Weighted count:   262878
Observations used in the analysis :   5466    Weighted count:   261620
Denominator degrees of freedom    :    729


Maximum number of estimable parameters for the model is  2

File BACHDATA contains  741 Clusters
 740 clusters were used to fit the model
Maximum cluster size is  59 records
Minimum cluster size is   1 records


Sample and Population Counts for Response Variable NOCTURIA1
  0:  Sample Count     3610    Population Count    187338
  1:  Sample Count     1856    Population Count     74281

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.012891

-2 * Normalized Log-Likelihood with Intercepts Only :  6522.31
-2 * Normalized Log-Likelihood Full Model          :  6451.39
Approximate Chi-Square (-2 * Log-L Ratio)          :    70.92
Degrees of Freedom                                 :        1

Note: The approximate Chi-Square is not adjusted for clustering.
      Refer to hypothesis test table for adjusted test.
```

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.01	3.05	0.06	-1.12	-0.90	-18.04
CARDIOD						
0	0.00	.	0.00	0.00	0.00	.
1	0.83	2.24	0.14	0.54	1.11	5.73

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
CARDIOD	
0	.
1	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Contrast.

Contrast	Degrees of Freedom	Wald F	P -value Wald F
OVERALL MODEL	2	163.18	0.0000
MODEL MINUS INTERCEPT	1	32.82	0.0000
INTERCEPT	.	.	.
CARDIOD	1	32.82	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% Limit OR	Upper 95% Limit OR
Intercept	0.36	0.33	0.41
CARDIOD			
0	1.00	1.00	1.00
1	2.29	1.72	3.03

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Number of zero responses : 3621
Number of non-zero responses : 1865

Independence parameters have converged in 5 iterations

Number of observations read : 5506 Weighted count: 262878
Observations used in the analysis : 5486 Weighted count: 262108
Denominator degrees of freedom : 729

Maximum number of estimable parameters for the model is 2

File BACHDATA contains 741 Clusters
740 clusters were used to fit the model
Maximum cluster size is 59 records
Minimum cluster size is 1 records

Sample and Population Counts for Response Variable NOCTURIA1
0: Sample Count 3621 Population Count 187617
1: Sample Count 1865 Population Count 74491

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.021760

-2 * Normalized Log-Likelihood with Intercepts Only : 6548.92
-2 * Normalized Log-Likelihood Full Model : 6428.23
Approximate Chi-Square (-2 * Log-L Ratio) : 120.69
Degrees of Freedom : 1

Note: The approximate Chi-Square is not adjusted for clustering.
Refer to hypothesis test table for adjusted test.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.05	3.21	0.06	-1.16	-0.93	-17.92
DIURETIC01						
0	0.00	.	0.00	0.00	0.00	.
1	0.99	1.70	0.12	0.76	1.21	8.55

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
DIURETIC01	
0	.
1	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Contrast.

Contrast	Degrees of Freedom	Wald F	P -value Wald F
OVERALL MODEL	2	161.16	0.0000
MODEL MINUS INTERCEPT	1	73.13	0.0000
INTERCEPT	.	.	.
DIURETIC01	1	73.13	0.0000

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% OR Limit	Upper 95% OR Limit
Intercept	0.35	0.31	0.39
DIURETIC01			
0	1.00	1.00	1.00
1	2.68	2.14	3.36

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Number of zero responses : 3589
Number of non-zero responses : 1843

Independence parameters have converged in 6 iterations

Number of observations read : 5506 Weighted count: 262878
Observations used in the analysis : 5432 Weighted count: 260519
Denominator degrees of freedom : 729

Maximum number of estimable parameters for the model is 12

File BACHDATA contains 741 Clusters
739 clusters were used to fit the model
Maximum cluster size is 59 records
Minimum cluster size is 1 records

Sample and Population Counts for Response Variable NOCTURIA1
0: Sample Count 3589 Population Count 186681
1: Sample Count 1843 Population Count 73839

R-Square for dependent variable NOCTURIA1 (Cox & Snell, 1989): 0.077054

-2 * Normalized Log-Likelihood with Intercepts Only : 6476.70
-2 * Normalized Log-Likelihood Full Model : 6041.14
Approximate Chi-Square (-2 * Log-L Ratio) : 435.56
Degrees of Freedom : 11

Note: The approximate Chi-Square is not adjusted for clustering.
Refer to hypothesis test table for adjusted test.

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Beta Coeff.	DEFF Beta #2	SE Beta	Lower 95% Limit Beta	Upper 95% Limit Beta	T-Test B=0
Intercept	-1.82	3.17	0.15	-2.12	-1.53	-12.25
AGECAT						
1	0.00	.	0.00	0.00	0.00	.
2	0.22	3.76	0.17	-0.10	0.55	1.34
3	0.52	2.74	0.16	0.21	0.83	3.34
4	0.84	3.61	0.18	0.49	1.19	4.72
RACEETH						
W	0.00	.	0.00	0.00	0.00	.
B	0.64	2.13	0.11	0.43	0.85	6.08
H	0.50	1.72	0.12	0.25	0.74	3.98
FOIA: A5. Sex of respondent						
1: Male	-0.22	2.62	0.10	-0.42	-0.01	-2.08
2: Female	0.00	.	0.00	0.00	0.00	.
BMICAT						
1	0.00	.	0.00	0.00	0.00	.
2	0.21	2.22	0.13	-0.04	0.45	1.67
3	0.49	2.34	0.12	0.25	0.74	3.96
FOID: E3b. Non-insulin-dependent or adult-onset diabetes						
1: Yes	0.49	2.39	0.17	0.15	0.84	2.84
2: No	0.00	.	0.00	0.00	0.00	.
CARDIOD						
0	0.00	.	0.00	0.00	0.00	.
1	0.31	2.16	0.16	0.00	0.62	1.99
DIURETIC01						
0	0.00	.	0.00	0.00	0.00	.
1	0.34	1.54	0.12	0.10	0.59	2.76

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	P-value T-Test B=0
Intercept	0.0000
AGECAT	
1	.
2	0.1814
3	0.0009
4	0.0000
RACEETH	
W	.
B	0.0000
H	0.0001
FOIA: A5. Sex of respondent	
1: Male	0.0375
2: Female	.
BMICAT	
1	.
2	0.0963
3	0.0001
FOID: E3b. Non-insulin-dependent or adult-onset diabetes	
1: Yes	0.0046
2: No	.
CARDIOD	
0	.
1	0.0467
DIURETIC01	
0	.
1	0.0059

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
By: Contrast.

Contrast	Degrees of Freedom	Wald F	P -value Wald F
OVERALL MODEL	12	33.57	0.0000
MODEL MINUS INTERCEPT	11	16.27	0.0000
INTERCEPT	.	.	.
AGECAT	3	9.79	0.0000
RACEETH	2	19.07	0.0000
GENDER	1	4.34	0.0375
BMICAT	2	8.16	0.0003
DIAB2	1	8.08	0.0046
CARDIOD	1	3.97	0.0467
DIURETIC01	1	7.61	0.0059

Variance Estimation Method: Taylor Series (WR)
SE Method: Robust (Binder, 1983)
Working Correlations: Independent
Link Function: Logit
Response variable NOCTURIA1: NOCTURIA1
by: Independent Variables and Effects.

Independent Variables and Effects	Odds Ratio	Lower 95% OR Limit	Upper 95% OR Limit
Intercept	0.16	0.12	0.22
AGECAT			
1	1.00	1.00	1.00
2	1.25	0.90	1.74
3	1.68	1.24	2.28
4	2.32	1.63	3.29
RACEETH			
W	1.00	1.00	1.00
B	1.90	1.54	2.33
H	1.64	1.29	2.10
FOIA: A5. Sex of respondent			
1: Male	0.81	0.66	0.99
2: Female	1.00	1.00	1.00
BMICAT			
1	1.00	1.00	1.00
2	1.23	0.96	1.58
3	1.64	1.28	2.10
FOID: E3b. Non-insulin-dependent or adult-onset diabetes			
1: Yes	1.64	1.17	2.31
2: No	1.00	1.00	1.00
CARDIOD			
0	1.00	1.00	1.00
1	1.37	1.00	1.86
DIURETIC01			
0	1.00	1.00	1.00
1	1.41	1.10	1.80