Calculated Variables

in the 2016 Data File of the

Behavioral Risk Factor Surveillance System

(Version #9 - Revised: June 2, 2017)

Introduction

This document provides information on calculated variables for the 2016 survey results of the Behavioral Risk Factor Surveillance System. These variables are calculated from participants' responses to survey questions. There are three types of calculated variables:

1. Variables used to stratify and weight the data (not included in this document).

2. Intermediate variables, which are derived from a question response and are used to calculate some other variable or risk factor. Example: WTKG2 is derived from the WEIGHT2 variable in the survey. WTKG2 is then used to calculate the body mass index variable (_BMI4). Most (but not all) of the intermediate variables end with an underscore such as FTJUDAY_.

3. Variables used to categorize or classify respondents. Most of these begin with an underscore such as _BMI4. Exceptions are: _DENSTR2, _GEOSTR, and _STATE, which are determined before the interview. Some of the calculated variables group continuous variables—such as weight, age, or body mass index—into categories. Other calculated variables regroup non-continuous variables to simplify analyses. The common focus of these variables is on health behaviors associated with a risk of illness or injury.

The tables in this report include a description of what the responses mean and a copy of the code used to calculate these variables in SAS®. The syntax of the code, as given, may or may not work in the particular statistical program that you are using.

Newly Added Calculated Variables for 2016

- **_DRNKDRV**
- **_IMPSEX**
- **_ECIGSTS**
- **_CURECIG**
- **_PHYS14D**
- **_MENT14D**

Section 1: Health Status

_RFHLTH *Calculated variable for adults with good or better health.* _RFHLTH is derived from GENHLTH.

1	Good or Better Health	Respondents who reported having excellent, very good or good health. (GENHLTH =1, 2, 3)
2	Fair or Poor Health	Respondents who reported having fair or poor health. (GENHLTH =4, 5)
9	Don't Know/ Not Sure Or Refused/Missing	Respondents who reported they didn't know, refused to answer, or had missing responses for the general health status question. (GENHLTH =7, 9, missing)

SAS Code:

```
IF 4 LE GENHLTH LE 5 THEN _RFHLTH=2;
 ELSE IF 1 LE GENHLTH LE 3 THEN _RFHLTH=1;
 ELSE _RFHLTH=9;
```

Section 2: Healthy Days — Health Related Quality of Life

_PHYS14D *Calculated variable for 3 level not good physical health status: 0 days, 1-13 days, 14-30 days.* _PHYS14D is derived from PHYSHLTH.

1	Zero days when physical health not good	Respondents who reported no days when their physical health was not good (PHYSHLTH=88)
2	1-13 days when physical health not good	Respondents who reported 1-13 days when their physical health was not good (1 <= PHYSHLTH <= 13)
3	14+ days when physical health not good	Respondents who reported 14 or more days when their physical health was not good (14 <= PHYSHLTH <=30)
9	Don't know/ Refused/Missing	Respondents who reported they didn´t know, refused or had missing values for PHYSHLTH (PHYSHLTH=77,99, or missing)

SAS Code:

```
IF PHYSHLTH IN (77,99,.) THEN _PHYS14D=9;
ELSE IF PHYSHLTH=88 THEN _PHYS14D=1;
ELSE IF 1 LE PHYSHLTH LE 13 THEN _PHYS14D=2;
ELSE _PHYS14D=3;
```

Section 2: Healthy Days — Health Related Quality of Life

_MENT14D *Calculated variable for 3 level not good mental health status: 0 days, 1-13 days, 14-30 days.*
_MENT14D is derived from MENTHLTH.

1	Zero days when mental health not good	Respondents who reported no days when their mental health was not good (MENTHLTH=88)
2	1-13 days when mental health not good	Respondents who reported 1-13 days when their mental health was not good (1 <= MENTHLTH <= 13)
3	14+ days when mental health not good	Respondents who reported 14 or more days when their mental health was not good (14 <= MENTHLTH <=30)
9	Don't know/ Refused/Missing	Respondents who reported they didn´t know, refused or had missing values for MENTHLTH (MENTHLTH=77,99, or missing)

SAS Code:

```
IF MENTHLTH IN (77,99,.) THEN _MENT14D=9;
ELSE IF MENTHLTH=88 THEN _MENT14D=1;
ELSE IF 1 LE MENTHLTH LE 13 THEN _MENT14D=2;
ELSE _MENT14D=3;
```

Section 3: Health Care Access

_HCVU651 *Calculated variable for respondents aged 18-64 who have any form of health care coverage.*
_HCVU651 is derived from AGE and HLTHPLN1.

1	Have health care coverage	Respondents who reported having health care coverage (18 <= AGE <= 64 and HLTHPLN1 = 1)
2	Do not have health care coverage	Respondents who reported not having health care coverage (18 <= AGE <= 64 and HLTHPLN1 = 2)
9	Don't know/ Not Sure, Refused or Missing	Respondents who reported that they didn´t know, were not sure, refused to report or had missing responses for having health care coverage (18 <= AGE <= 64 and HLTHPLN1 = 7, 9, or missing or AGE => 65)

SAS Code:

```
IF 18 LE AGE LE 64 THEN DO;
 IF HLTHPLN1=1 THEN _HCVU651=1;
 ELSE IF HLTHPLN1=2 THEN _HCVU651=2;
 ELSE _HCVU651=9;
 END;
 ELSE _HCVU651 = 9;
```

Section 4: Exercise

_TOTINDA *Calculated variable for adults who reported doing physical activity or exercise during the past 30 days other than their regular job.* _TOTINDA is derived from EXERANY2.

1	Had physical activity or exercise	Respondents who reported doing any physical activity or exercise. (EXERANY2=1)
2	No physical activity or exercise in last 30 days	Respondents who reported doing no physical activity or exercise. (EXERANY2=2)
9	Don't know/ Refused/Missing	Respondents who reported they didn't know or refused to answer, and those with missing responses for the physical activity/exercise question. (EXERANY2=7, 9, missing)

SAS Code:

```
IF EXERANY2 IN (1) THEN _TOTINDA=1;
 ELSE IF EXERANY2 IN (2) THEN _TOTINDA=2;
 ELSE IF EXERANY2 IN (.,7,9) THEN _TOTINDA=9;
```

Section 5: Inadequate Sleep

There are no calculated variables for Section 5.

Section 6: Chronic Health Conditions

_MICHD *Calculated variable for respondents who have ever reported having coronary heart disease (CHD) or myocardial infarction (MI).* _MICHD is derived from CVDINFR4, and CVDCRHD4.

1	Reported having MI or CHD	Respondents who reported having had MI or CHD (CVDINFR4=1 OR CVDCRHD4=1)
2	Did not report having MI or CHD	Respondents who reported not having had MI and CHD (CVDINFR4=2 AND CVDCRHD4=2)
.	Not asked or Missing	Respondents who reported they didn´t know, refused or had a missing value for the MI or CHD questions (CVDINFR4=7, 9 OR MISSING OR CVDCRHD4=7, 9, OR MISSING)

SAS Code:

```
IF CVDINFR4=1 OR CVDCRHD4=1 THEN _MICHD=1;
ELSE IF CVDINFR4=2 AND CVDCRHD4=2 THEN _MICHD=2;
```

Section 6: Chronic Health Conditions

_LTASTH1 *Calculated variable for adults who have ever been told they have asthma.* _LTASTH1 is derived from ASTHMA3.

1	No	Respondents who have not been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=2)
2	Yes	Respondents who have been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=1)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they did not know if they had been told by a doctor, nurse or health professional that they had asthma, those who refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, or those with missing responses. (ASTHMA3=7, 9, missing)

SAS Code:

```
IF ASTHMA3=1 THEN _LTASTH1=2;
 ELSE IF ASTHMA3=2 THEN _LTASTH1=1;
 ELSE _LTASTH1=9;
```

Section 6: Chronic Health Conditions

_CASTHM1 *Calculated variable for adults who have been told they currently have asthma.* _CASTHM1 is derived from ASTHMA3 and ASTHNOW.

1	No	Respondents who have not been told by a doctor, nurse or health professional that they had asthma or do not still have asthma. (ASTHMA3=2 or ASTHMA3=1 and ASTHNOW=2)
2	Yes	Respondents who have been told by a doctor, nurse or health professional that they had asthma and that they still have asthma. (ASTHMA3=1 and ASTHNOW=1)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they did not know if they had been told by a doctor, nurse or health professional that they had asthma, those who refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, those who did not know if they still had asthma, those who refused to answer if they still had asthma, or those with missing responses. (ASTHMA3=7, 9, missing; or ASTHNOW=7, 9, missing)

SAS Code:

```
IF ASTHMA3=2 THEN _CASTHM1=1;
 ELSE IF ASTHMA3=1 AND ASTHNOW=1 THEN _CASTHM1=2;
 ELSE IF ASTHMA3=1 AND ASTHNOW=2 THEN _CASTHM1=1;
 ELSE _CASTHM1=9;
```

Section 6: Chronic Health Conditions

_ASTHMS1 *Calculated variable for computed asthma status.* _ASTHMS1 is derived from ASTHMA3 and ASTHNOW.

1	Current	Respondents who have been told by a doctor, nurse or health professional that they had asthma and that they still have asthma. (ASTHMA3=1and ASTHNOW=1)
2	Former	Respondents who have been told by a doctor, nurse or health professional that they had asthma but do not still have asthma. (ASTHMA3=1 and ASTHNOW=2)
3	Never	Respondents who have not been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=2)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they didn't know if they had been told by a doctor, nurse or health professional that they had asthma, those who refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, those who didn't know if they still had asthma, those that refused to answer if they still had asthma, or those with missing responses. (ASTHMA3=7, 9, missing; or ASTHNOW=7, 9, missing)

SAS Code:

```
IF ASTHMA3=1 AND ASTHNOW=1 THEN _ASTHMS1=1;
 ELSE IF ASTHMA3=1 AND ASTHNOW=2 THEN _ASTHMS1=2;
 ELSE IF ASTHMA3=2 THEN  ASTHMS1=3;
 ELSE _ASTHMS1=9;
```

Section 6: Chronic Health Conditions

_DRDXAR1 *Calculated variable for respondents who have had a doctor diagnose them as having some form of arthritis.* _DRDXAR1 is derived from HAVARTH3.

1	Diagnosed with arthritis	Respondents who have been told by a doctor they had arthritis (HAVARTH3=1)
2	Not diagnosed with arthritis	Respondents who have not been told by a doctor they had arthritis (HAVARTH3=2)
.	Don´t know/ Not Sure/Refused/ Missing	Respondents who reported they didn´t know if they had been told by a doctor they had arthritis, those who refused to answer if they had been told by a doctor they had arthritis, and those with missing responses (HAVARTH3=7,9, or missing)

SAS Code:

```
IF HAVARTH3 = 1 THEN _DRDXAR1=1;
 ELSE IF HAVARTH3 = 2 THEN _DRDXAR1=2;
 ELSE IF HAVARTH3 IN (7,9,.) THEN _DRDXAR1=.;
```

Section 7: Oral Health

_EXTETH2 *Calculated variable for adults aged 18+ who have had permanent teeth extracted.* _EXTETH2 is derived from RMVTETH3.

1	Not at risk	Respondents who reported having had no permanent teeth removed. (RMVTETH3=8)
2	At risk	Respondents who reported having had permanent teeth removed. (RMVTETH3=1 or 2 or 3)
9	Don't know/ Not Sure Or Refused/ Missing	Respondent who reported they didn´t know, refused to answer, or had missing values on having had any permanent teeth extracted question. (RMVTETH3=7, 9, missing)

SAS Code:

```
IF RMVTETH3 IN (1,2,3) THEN _EXTETH2=2;
ELSE IF RMVTETH3=8 THEN _EXTETH2=1;
ELSE _EXTETH2=9;
```

Section 7: Oral Health

_ALTETH2 *Calculated variable for adults aged 65+ who have had all their natural teeth extracted.* _ALTETH2 is derived from AGE and RMVTETH3.

1	No	Respondents aged 65 or more who reported having none or some natural teeth removed. (AGE > 64 and RMVTETH3=1, 2, 8)
2	Yes	Respondents aged 65 or more who reported having all natural teeth removed. (AGE > 64 and RMVTETH3=3)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who didn't know, or refused to report their age or didn't know, or refused to report if they had any natural teeth removed. (AGE=7, 9, missing; or RMVTETH3=7, 9, missing)
.	Missing or Age Less Than 65	Respondents aged 18–64. (18 <= AGE <= 64)

SAS Code:

```
IF AGE >= 65 THEN DO;
IF RMVTETH3 IN (1,2,8) THEN _ALTETH2=1;
ELSE IF RMVTETH3=3 THEN _ALTETH2=2;
ELSE IF RMVTETH3 IN (.,7,9) THEN _ALTETH2=9;
END;
ELSE IF AGE IN (.,7,9) THEN _ALTETH2=9;
ELSE _ALTETH2=.;
```

Section 7: Oral Health

_DENVST2 *Calculated variable for adults who have visited a dentist, dental hygienist or dental clinic within the past year.* _DENVST2 is derived from LASTDEN3.

1	Yes	Respondents who reported having had dental visit in the past year. (LASTDEN3=1)
2	No	Respondents who reported having not had dental visit in the past year. (LASTDEN3=2, 3, or 4)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents with missing values or who refused or didn't know if they had a dental visit in the past year. (LASTDEN3=7,9 or missing)

SAS Code:

```
IF LASTDEN3=1 THEN _DENVST2=1;
ELSE IF LASTDEN3 IN (2,3,4,8) THEN _DENVST2=2;
ELSE IF LASTDEN3 IN (.,7,9) THEN _DENVST2=9;
```

Section 8: Demographics

MRACORG1 *Calculated variable for mrace1 with 77,88,99s removed.* MRACORG1 is derived from MRACE1 in the original order in which the data were received from the state territory. If MRACE1 is greater than 99, then any 77, 80, 88, or 99 is removed. If MRACE1 is less than or equal to 99 then MRACORG1 is equal to MRACE1.

10 - 6.05E9	Race code(s)	Respondents reported race or races in original order (MRACE1=10, 20, 30, 40, 50, 60, or MRACE1 > 99)
77	Don't know/ Not sure	Respondents who reported they didn´t know or weren´t sure of their race. (MRACE1=77)
99	Refused	Respondents who refused to give their race. (MRACE1=99)

SAS Code:

```
IF (LEFT(COMPRESS(LENGTH(MRACE1)))) > 2 THEN DO;
MRACORG77=PUT(LEFT(COMPRESS(TRANWRD(MRACE1,"77",""))),28.);
MRACORG88=PUT(LEFT(COMPRESS(TRANWRD(MRACORG77,"88",""))),28.);
MRACORG99=PUT(LEFT(COMPRESS(TRANWRD(MRACORG88,"99",""))),28.);
MRACORG1=PUT(LEFT(COMPRESS(TRANWRD(MRACORG99,"80",""))),28.);
END;
ELSE DO;
MRACORG1=MRACE1;
END;
```

Section 8: Demographics

MRACASC1 *Calculated variable for mracorg1 with 77,88,99s removed, in ascending order.* MRACASC1 is derived from MRACORG1. The values that make up MRACORG1 are sorted from smallest to largest.

10 - 1.02E9	Race code(s)	Respondents reported race or races in ascending order (MRACE1=10, 20, 30, 40, 50, 60, or MRACORG1 > 99)
77	Don't know/ Not sure	Respondents who reported they didn´t know, or weren´t sure of their race. (MRACORG1=77)
99	Refused	Respondents who refused to give their race. (MRACORG1=99)

SAS Code:

```
IF (LEFT(COMPRESS(LENGTH(MRACORG1)))) > 2 THEN DO;
array pairs[14];
length MRAC_SORTED $28;
counter = .;
do pos = 1 to length(MRACORG1) by 2;
counter + 1;
pairs[counter] = input(substr(MRACORG1, pos, 2), 2.);
end;
do i = 1 to counter;
MRAC_SORTED = cats(MRAC_SORTED, smallest(i, of pairs[*]));
end;
drop pairs: i counter pos;
MRAC_VALID=MRAC_SORTED;
%macro swapthis;
%do M = 1 %to 14;
%LET R=%eval((&M.*2)-1);
%do s = 41 %to 47;
if substr(MRAC_VALID,&R.,2)=&s. then do;
MRAC_VALID = TRANWRD(MRAC_VALID,"&S.","40");
end;
%end;
%do t = 51 %to 54;
if substr(MRAC_VALID,&R.,2)=&t. then do;
MRAC_VALID = TRANWRD(MRAC_VALID,"&T.","50");
end;
%end;
%end;
%mend;
%swapthis;
DO Z=1 TO 4;
MRAC_5050=
PUT(LEFT(COMPRESS(TRANWRD(MRAC_VALID,"5050","50XX"))),28.);
MRAC_ONE50= PUT(LEFT(COMPRESS(TRANWRD(MRAC_5050,"XX",""))),28.);
END;
MRAC_ONE40=MRAC_ONE50;
DO Y=1 TO 7;
MRAC_4040=
PUT(LEFT(COMPRESS(TRANWRD(MRAC_ONE40,"4040","40XX"))),28.);
MRAC_ONE40= PUT(LEFT(COMPRESS(TRANWRD(MRAC_4040,"XX",""))),28.);
END;
MRACASC1=INPUT(MRAC_ONE40,28.0);
END;
ELSE DO;
MRACASC1=INPUT(MRACORG1,28.0);
END;
```

Section 8: Demographics

_PRACE1 *Calculated variable for preferred race category.* _PRACE is derived from MRACASC1 and ORACE3. If MRACEASC has only one response, then _PRACE1=MRACASC1. If MRACASC1 has more than one response, then _PRACE1=ORACE3.

1	White	Respondents who reported their race as white. (MRACASC1=10 or MRACASC1>99 and ORACE3=10)
2	Black or African American	Respondents who reported their race as black. (MRACASC1=22 or MRACASC1>99 and ORACE3=20)
3	American Indian or Alaskan Native	Respondents who reported their race as American Indian or Alaska Native. (MRACASC1=30 or MRACASC1>99 and ORACE3=30)
4	Asian	Respondents who reported their race as Asian. (MRACASC1=40 or MRACASC1>99 and ORACE3=40)
5	Native Hawaiian or other Pacific Islander	Respondents who reported their race as Native Hawaiian or Pacific Islander. (MRACASC1=50 or MRACASC1>99 and ORACE3=50)
6	Other race	Respondents who report they are of some other race group not listed in the question responses. (MRACASC1=60 or MRACASC1>99 and ORACE3=60)
7	No preferred race	Respondents who reported they are of more than one race group but did not report a preference or the preferred race is missing (MRACASC1>99 and ORACE3=77 or 99)
8	Multiracial but preferred race not answered	Respondents who reported they are of more than one race group but did not answer the question about which race best represents them NOTE: This is a data collection error. (MRACASC1 >99 and ORACE3=80 or MRACASC1 >99 and ORACE3= Missing)
77	Don't know/ Not sure	Respondents who reported they didn´t know their race and did not answer the question about which race best represents them. (MRACASC1=77)
99	Refused	Respondents who refused to give their race and did not answer the question about which race best represents them. (MRACASC1=99)

SAS Code:

```
IF MRACASC1 EQ 10 THEN _PRACE1 = 1;
ELSE IF MRACASC1 EQ 20 THEN _PRACE1 = 2;
ELSE IF MRACASC1 EQ 30 THEN _PRACE1 = 3;
ELSE IF 40 LE MRACASC1 LE 49 THEN _PRACE1=4;
ELSE IF 50 LE MRACASC1 LE 59 THEN _PRACE1=5;
ELSE IF MRACASC1 EQ 60 THEN _PRACE1=6;
ELSE IF MRACASC1 EQ 77 THEN _PRACE1=77;
ELSE IF MRACASC1 EQ 99 THEN _PRACE1=99;
ELSE IF MRACASC1 GT 99 THEN DO;
 IF ORACE3=77 THEN _PRACE1=7;
ELSE IF ORACE3=99 THEN _PRACE1=7;
ELSE IF ORACE3=.  THEN _PRACE1=8;
ELSE IF ORACE3=80 THEN _PRACE1=8;
ELSE IF ORACE3 EQ 10 THEN _PRACE1=1;
ELSE IF ORACE3 EQ 20 THEN _PRACE1=2;
ELSE IF ORACE3 EQ 30 THEN  PRACE1=3;
ELSE IF 40 LE ORACE3 LE 49 THEN _PRACE1=4;
ELSE IF 50 LE ORACE3 LE 59 THEN _PRACE1=5;
ELSE IF ORACE3 EQ 60 THEN _PRACE1=6;
END;
```

Section 8: Demographics

_MRACE1 *Calculated variable for calculated multiracial race categorization.* _MRACE1 is derived from MRACASC1. If respondents reported more than one race they are assigned to the multiracial category. If MRACASC1 is less than 40 or equal to 60 then _MRACE1=MRACASC1. If MRACASC1 is 40-47 then _MRACE1=40. If MRACASC1 is 50-54 then _MRACE1=50.

1	White only	Respondents who reported they are white. (MRACASC1=10)
2	Black or African American only	Respondents who report they are black. (MRACASC1=22)
3	American Indian or Alaskan Native only	Respondents who reported they are American Indian or Alaska Native. (MRACASC1=30)
4	Asian Only	Respondents who reported they are Asian. (MRACASC1=40,41,42,423,44,45,46,47)
5	Native Hawaiian or other Pacific Islander only	Respondents who reported they are native Hawaiian or Pacific Islander. (MRACASC1=50,51,52,53,54)
6	Other race only	Respondents who reported they are of some other race group not listed in the question responses. (MRACASC1=60)
7	Multiracial	Respondents who reported they are of more than one race group (MRACASC1>99)
77	Don’t know/ Not sure	Respondents who reported they did not know their race. (MRACASC1=77)
99	Refused	Respondents who refused to give their race information. (MRACASC1=99)

SAS Code:

```
IF MRACASC1 GT 99 THEN _MRACE1 = 7;
 ELSE IF MRACASC1 EQ 99 THEN _MRACE1 = 99;
 ELSE IF MRACASC1 EQ 77 THEN _MRACE1 = 77;
 ELSE IF MRACASC1 EQ 10 THEN _MRACE1 = 1;
 ELSE IF MRACASC1 EQ 20 THEN _MRACE1 = 2;
ELSE IF MRACASC1 EQ 30 THEN _MRACE1 = 3;
 ELSE IF 40 LE MRACASC1 LE 47 THEN _MRACE1 = 4;
ELSE IF 50 LE MRACASC1 LE 54 THEN _MRACE1 = 5;
ELSE IF MRACASC1=60 THEN _MRACE1=6;
```

Section 8: Demographics

_M_RACE *Calculated variable for calculated multiracial race categorization.* _M_RACE is derived from MRACASC1. If respondents reported more than one race, they are assigned to the multiracial category, otherwise _M_RACE=MRACASC1.

10	White	Respondents who reported being white (MRACASC1=10)
20	Black or African American	Respondents who reported being black or African American (MRACASC1=22)
30	American Indian or Alaska Native	Respondents who reported being American Indian or Alaska Native (MRACASC1=30)
40	Asian	Respondents who reported being American Indian or Alaska Native (MRACASC1=40)
41	Asian Indian	Respondents who reported being Asian Indian (MRACASC1=41)
42	Chinese	Respondents who reported being Chinese (MRACASC1=42)
43	Filipino	Respondents who reported being Filipino (MRACASC1=43)
44	Japanese	Respondents who reported being Japanese (MRACASC1=44)
45	Korean	Respondents who reported being Korean (MRACASC1=45)
46	Vietnamese	Respondents who reported being Vietnamese (MRACASC1=46)
47	Other Asian	Respondents who reported being Other Asian (MRACASC1=47)
50	Native Hawaiian	Respondents who reported being Native Hawaiian (MRACASC1=50)
51	Pacific Islander	Respondents who reported being Pacific Islander (MRACASC1=51)
52	Guamanian or Chamorro	Respondents who reported being Guamanian or Chamorro (MRACASC1=52)
53	Samoan	Respondents who reported being Samoan (MRACASC1=53)
54	Other Pacific Islander	Respondents who reported being Other Pacific Islander (MRACASC1=54)
60	Other	Respondents who reported being Other (MRACASC1=60)
70	Multiple responses	Respondents who reported being of multiple races/ethnicities (MRACASC1>99)
77	Don’t know/ Not Sure	Respondents who reported they didn´t know their race (MRACASC1=77)
99	Refused	Respondents who refused to answer what race/ethnicity they were (MRACASC1=99)

SAS Code:

```
IF MRACASC1 GT 99 THEN _M_RACE = 70;
ELSE IF MRACASC1 EQ 99 THEN _M_RACE = 99;
ELSE IF MRACASC1 EQ 77 THEN _M_RACE = 77;
ELSE IF 10 LE MRACASC1 LE 60 THEN _M_RACE=MRACASC1;
```

Section 8: Demographics

_HISPANC *Calculated variable for Hispanic, Latino/a, or Spanish origin calculated variable.* _HISPANC is derived from HISPANC3

1	Hispanic, Latino/a, or Spanish origin	Respondents who reported being of Hispanic, Latino/a, or Spanish origin (HISPANC3=1,2,3,4 or HISPANC3 > 9)
2	Not of Hispanic, Latino/a, or Spanish origin	Respondents who reported they were not of Hispanic, Latino/a, or Spanish origin (HISPANC3=5)
9	Don´t Know, Refused or Missing	Respondents who refused to report if they were of Hispanic, Latino/a, or Spanish origin (HISPANC3=7)
.	Not asked or Missing	Respondents who reported they did not know if they were of Hispanic, Latino/a, or Spanish origin (HISPANC3=9)

SAS Code:

```
HISPNUM=INPUT(HISPANC3,4.0);
IF HISPNUM in (5,58) THEN _HISPANC=2;
ELSE IF HISPNUM in (7,9,.) THEN _HISPANC=9;
ELSE _HISPANC=1;
```

Section 8: Demographics

_RACE *Calculated variable for race ethnicity categories.* RACE2 is derived from _MRACE1 and _HISPANC. All respondents who reported they are of Hispanic or Latino origin are coded as Hispanic.

1	White only, non-Hispanic	Respondents who reported they are white and not of Hispanic origin. (_MRACE1=1 and _HISPANC=2)
2	Black only, non-Hispanic	Respondents who reported they are black and not of Hispanic origin. (_MRACE1=2 and _HISPANC=2)
3	American Indian or Alaskan Native only, Non-Hispanic	Respondents who reported they are American Indian or Alaska Native and not of Hispanic origin. (_MRACE1=3 and _HISPANC=2)
4	Asian only, non-Hispanic	Respondents who reported they are Asian and not of Hispanic origin. (_MRACE1=4 and _HISPANC=2)
5	Native Hawaiian or other Pacific Islander only, Non-Hispanic	Respondents who reported they are Native Hawaiian or Pacific Islander and not of Hispanic origin. (_MRACE1=5 and _HISPANC=2)
6	Other race only, non-Hispanic	Respondents who reported they are of some other race group not listed in the question responses and are not of Hispanic origin. (_MRACE1=6 and _HISPANC=2)
7	Multiracial, non-Hispanic	Respondents who reported they are of more than one race group and are not of Hispanic origin. (_MRACE1=7 and _HISPANC=2)
8	Hispanic	Respondents who reported they are of Hispanic origin. (_HISPANC=1)
9	Don't know/ Not sure/ Refused	Respondents who reported they did not know, or refused to give their race and are not of Hispanic origin or did not know, or refused to answer if they are of Hispanic origin. (_MRACE1 =77, 99 and _HISPANC=2 or _HISPANC=7, 9)

SAS Code:

```
IF _HISPANC=9 OR (_MRACE1 IN(77,99) AND HISPANC3 EQ 2) THEN DO;
_RACE = 9 ;
END;
ELSE IF _HISPANC =2 THEN DO;
IF _MRACE1 = 1 THEN _RACE = 1 ;
ELSE IF _MRACE1 = 2 THEN _RACE = 2 ;
ELSE IF _MRACE1 = 3 THEN _RACE = 3 ;
ELSE IF _MRACE1 = 4 THEN _RACE = 4 ;
ELSE IF _MRACE1 = 5 THEN _RACE = 5 ;
ELSE IF _MRACE1 = 6 THEN _RACE = 6 ;
ELSE IF _MRACE1 = 7 THEN _RACE = 7 ;
END;
ELSE IF _HISPANC=1 THEN DO;
_RACE = 8 ;
END;
```

Section 8: Demographics

_RACEG21 *Calculated variable for white non-Hispanic race group.* _RACEG21 is derived from _RACE.

1	Non-Hispanic White	Respondents who reported they are white and not of Hispanic origin. (_RACE=1)
2	Non-White or Hispanic	Respondents who reported they are non-white or of Hispanic origin. (_RACE=2, 3, 4, 5, 6, 7, 8)
9	Don't know/ Not sure/ Refused	Respondents who reported they did not know, or refused to give their race and are not of Hispanic origin or did not know, or refused to answer if they are of Hispanic origin. (_RACE=9)

SAS Code:

```
IF  RACE = 1 THEN  RACEG21 = 1;
 ELSE IF _RACE IN (2,3,4,5,6,7,8) THEN _RACEG21 = 2;
 ELSE IF _RACE=9 THEN _RACEG21 = 9;
```

Section 8: Demographics

_RACEGR3 *Calculated variable for five-level race ethnicity category.* _RACEGR3 is derived from _RACE.

1	White only, Non-Hispanic	Respondents who reported they are white and not of Hispanic origin. (_RACE=1)
2	Black only, Non-Hispanic	Respondents who reported they are black and not of Hispanic origin. (_RACE=2)
3	Other race only, Non-Hispanic	Respondents who reported they are not white and not black and not of Hispanic origin. (_RACE=3, 4, 5, 6)
4	Multiracial, Non-Hispanic	Respondents who reported being multiracial but not of Hispanic origin. (_RACE=7)
5	Hispanic	Respondents who reported they are of Hispanic origin. (_RACE=8)
9	Don't know/ Not sure/ Refused	Respondents who reported they did not know, or refused to give their race and are not of Hispanic origin or did not know, or refused to answer if they are of Hispanic origin. (_RACE=9)

SAS Code:

```
IF _RACE=1 THEN _RACEGR3=1;
 ELSE IF _RACE=2 THEN _RACEGR3=2;
 ELSE IF 3 LE _RACE LE 6 THEN _RACEGR3=3;
 ELSE IF _RACE=7 THEN _RACEGR3=4;
 ELSE IF _RACE=8 THEN _RACEGR3=5;
 ELSE IF _RACE=9 THEN _RACEGR3=9;
```

Section 8: Demographics

_RACE_G1 *Calculated variable for race groups used for internet prevalence tables.* _RACE_G is derived from _RACEGR3.

1	White - Non-Hispanic	Respondents who reported they are white and not of Hispanic origin. (_RACEGR3=1)
2	Black - Non-Hispanic	Respondents who reported they are black and not of Hispanic origin. (_RACEGR3=2)
3	Hispanic	Respondents who reported that they are of Hispanic origin. (_RACEGR3=5)
4	Other race only, Non-Hispanic	All other respondents with valid race responses except for those reporting multiracial or Hispanic origins. (_RACEGR3=3)
5	Multiracial, Non-Hispanic	All other respondents reporting multiracial but non-Hispanic origin. (_RACEGR3=4)
.	Don't know/ Not sure/ Refused component question	Respondents with don´t know, refused or missing values for _RACEGR2. (_RACEGR3=9, missing)

SAS Code:

```
IF _RACEGR3 = 1 THEN _RACE_G1 = 1;
 ELSE IF _RACEGR3 = 2 THEN _RACE_G1 = 2;
 ELSE IF _RACEGR3 = 3 THEN _RACE_G1 = 4;
 ELSE IF _RACEGR3 = 4 THEN _RACE_G1 = 5;
 ELSE IF _RACEGR3 = 5 THEN _RACE_G1 = 3;
```

Section 8: Demographics

_AGEG5YR *Calculated variable for fourteen-level age category.* _AGEG5YR is derived from AGE.

1	Age 18 to 24	Respondents with reported age between 18 and 24 years (18 <= AGE <= 24)
2	Age 25 to 29	Respondents with reported age between 25 and 29 years (25 <= AGE <= 29)
3	Age 30 to 34	Respondents with reported age between 30 and 34 years (30 <= AGE <= 34)
4	Age 35 to 39	Respondents with reported age between 35 and 39 years (35 <= AGE <= 39)
5	Age 40 to 44	Respondents with reported age between 40 and 44 years (40 <= AGE <= 44)
6	Age 45 to 49	Respondents with reported age between 45 and 49 years (45 <= AGE <= 49)
7	Age 50 to 54	Respondents with reported age between 50 and 54 years (50 <= AGE <= 54)
8	Age 55 to 59	Respondents with reported age between 55 and 59 years (55 <= AGE <= 59)
9	Age 60 to 64	Respondents with reported age between 60 and 64 years (60 <= AGE <= 64)
10	Age 65 to 69	Respondents with reported age between 65 and 69 years (65 <= AGE <= 69)
11	Age 70 to 74	Respondents with reported age between 70 and 74 years (70 <= AGE <= 74)
12	Age 75 to 79	Respondents with reported age between 75 and 79 years (75 <= AGE <= 79)
13	Age 80 or older	Respondents with reported age between 80 and 99 years (80 <= AGE <= 99)
14	Don't know/ Refused/ Missing	Respondents who reported they didn´t know, were not sure, refused to report or had missing responses for their age. (AGE=7, 9, missing)

SAS Code:

```
IF 18 LE AGE LE 24 THEN _AGEG5YR = 1;
 ELSE IF 25 LE AGE LE 29 THEN _AGEG5YR = 2;
 ELSE IF 30 LE AGE LE 34 THEN _AGEG5YR = 3;
 ELSE IF 35 LE AGE LE 39 THEN _AGEG5YR = 4;
 ELSE IF 40 LE AGE LE 44 THEN _AGEG5YR = 5;
ELSE IF 45 LE AGE LE 49 THEN _AGEG5YR = 6;
 ELSE IF 50 LE AGE LE 54 THEN _AGEG5YR = 7;
 ELSE IF 55 LE AGE LE 59 THEN _AGEG5YR = 8;
 ELSE IF 60 LE AGE LE 64 THEN _AGEG5YR = 9;
 ELSE IF 65 LE AGE LE 69 THEN _AGEG5YR = 10;
ELSE IF 70 LE AGE LE 74 THEN _AGEG5YR = 11;
 ELSE IF 75 LE AGE LE 79 THEN _AGEG5YR = 12;
 ELSE IF 80 LE AGE LE 99 THEN _AGEG5YR = 13;
 ELSE _AGEG5YR = 14;
```

Section 8: Demographics

_AGE65YR *Calculated variable for two-level age category.* _AGE65YR is derived from AGE.

1	Age 18 to 64	Respondents with reported ages 18–64. (18 <= AGE <=64)
2	Age 65 or older	Respondents with reported ages 65–99. (65 >= AGE >= 99)
3	Don't know/ Refused/ Missing	Respondents who reported they didn´t know, were not sure, refused, or had a missing value for AGE. (AGE=7,9,or missing)

SAS Code:

```
IF 18 LE AGE LE 64 THEN _AGE65YR=1;
 ELSE IF 65 LE AGE LE 99 THEN _AGE65YR=2;
 ELSE _AGE65YR = 3;
```

Section 8: Demographics

_AGE80 *Calculated variable for imputed age value collapsed above 80.* _AGE80 is derived from _IMPAGE.

18 - 24	Imputed Age 18 to 24	Respondents with reported Imputed Age between 18 and 24 years (18 <= Imputed Age <= 24)
25 - 29	Imputed Age 25 to 29	Respondents with reported Imputed Age between 25 and 29 years (25 <= Imputed Age <= 29)
30 - 34	Imputed Age 30 to 34	Respondents with reported Imputed Age between 30 and 34 years (30 <= Imputed Age <= 34)
35 - 39	Imputed Age 35 to 39	Respondents with reported Imputed Age between 35 and 39 years (35 <= Imputed Age <= 39)
40 - 44	Imputed Age 40 to 44	Respondents with reported Imputed Age between 40 and 44 years (40 <= Imputed Age <= 44)
45 - 49	Imputed Age 45 to 49	Respondents with reported Imputed Age between 45 and 49 years (45 <= Imputed Age <= 49)
50 - 54	Imputed Age 50 to 54	Respondents with reported Imputed Age between 50 and 54 years (50 <= Imputed Age <= 54)
55 - 59	Imputed Age 55 to 59	Respondents with reported Imputed Age between 55 and 59 years (55 <= Imputed Age <= 59)
60 - 64	Imputed Age 60 to 64	Respondents with reported Imputed Age between 60 and 64 years (60 <= Imputed Age <= 64)
65 - 69	Imputed Age 65 to 69	Respondents with reported Imputed Age between 65 and 69 years (65 <= Imputed Age <= 69)
70 - 74	Imputed Age 70 to 74	Respondents with reported Imputed Age between 70 and 74 years (70 <= Imputed Age <= 74)
75 - 79	Imputed Age 75 to 79	Respondents with reported Imputed Age between 75 and 79 years (75 <= Imputed Age <= 79)
80 - 99	Imputed Age 80 or older	Respondents with reported Imputed Age between 80 and 99 years (80 <= Imputed Age <= 99)

SAS Code:

```
IF 18 LE _IMPAGE LE 80 THEN _AGE80=_IMPAGE;
ELSE IF _IMPAGE GE 80 THEN _AGE80=80;
```

Section 8: Demographics

_AGE_G *Calculated variable for six-level imputed age category.* _AGE_G is derived from _IMPAGE (imputed age).

1	Age 18 to 24	Respondents with imputed ages between 18–24 years of age. (18 <= _IMPAGE <= 24)
2	Age 25 to 34	Respondents with imputed ages between 25–34 years of age. (25 <= _IMPAGE <= 34)
3	Age 35 to 44	Respondents with imputed ages between 35–44 years of age. (35 <= _IMPAGE <= 44)
4	Age 45 to 54	Respondents with imputed ages between 45–54 years of age. (45 <= _IMPAGE <= 54)
5	Age 55 to 64	Respondents with imputed ages between 55–64 years of age. (55 <= _IMPAGE <= 64)
6	Age 65 or older	Respondents with imputed ages between 65–99 years of age. (_IMPAGE => 65)

SAS Code:

```
IF (18<=_IMPAGE<=24) THEN _AGE_G = 1;
 ELSE IF (25<=_IMPAGE<=34) THEN _AGE_G = 2;
 ELSE IF (35<=_IMPAGE<=44) THEN _AGE_G = 3;
 ELSE IF (45<=_IMPAGE<=54) THEN _AGE_G = 4;
 ELSE IF (55<=_IMPAGE<=64) THEN _AGE_G = 5;
 ELSE IF (_IMPAGE >= 65) THEN _AGE_G = 6;
```

Section 8: Demographics

HTIN4 *Calculated variable for reported height in inches.* HTIN4 is derived from HEIGHT3. HTIN4 is calculated by adding the foot portion of HEIGHT3 multiplied by 12, to the inch portion.

36 - 95	Height in inches	Respondents calculated height in inches. (HTIN4=(height in feet x 12) + height in inches)
.	Don’t know/ Refused/Not asked or Missing	Respondents who reported they didn´t know, were not sure, refused or had missing responses for their height.

SAS Code:

```
IF 300<=HEIGHT3<=311 THEN HTIN4=((HEIGHT3-300)+36);
ELSE IF 400<=HEIGHT3<=411 THEN HTIN4=((HEIGHT3-400)+48);
ELSE IF 500<=HEIGHT3<=511 THEN HTIN4=((HEIGHT3-500)+60);
ELSE IF 600<=HEIGHT3<=611 THEN HTIN4=((HEIGHT3-600)+72);
ELSE IF 700<=HEIGHT3<=711 THEN HTIN4=((HEIGHT3-700)+84);
```

Section 8: Demographics

HTM4 *Calculated variable for reported height in meters.* HTM4 is derived from the variable HTIN4 by multiplying HTIN4 by 2.54 cm per in and dividing by 100 cm per meter. HTM4 is derived from HEIGHT2 metric values by dividing by 100.

91 - 244	Height in meters [2 implied decimal places]	Respondents reported or calculated height in meters. (HTM4=HTIN4 x 0.0254 or HTM4 = (HEIGHT3 - 9000) ÷ 100)
.	Don't know/ Refused/Not asked or Missing	Respondents who reported they didn´t know, were not sure, refused or had missing responses for their height.

SAS Code:

```
IF 300 <= HEIGHT3 <= 711 THEN HTM4=HTIN4*0.0254;
ELSE IF 9091 <= HEIGHT3 < 9244 THEN HTM4=(HEIGHT3-9000)/100;
```

Section 8: Demographics

WTKG3 *Calculated variable for reported weight in kilograms.* WTKG3 is derived from WEIGHT2 by multiplying WEIGHT2 by 0.4535924 kg per lb.

2300 - 29500	Weight in kilograms [2 implied decimal places]	Respondents reported or calculated weight in kilograms.
.	Don't know/ Refused/ Not asked or Missing	Respondents who reported they didn´t know, were not sure, or refused or had missing responses for their weight.

SAS Code:

```
** CONVERSION FACTOR = 0.4535924 kg/lb **;
 IF WEIGHT2 NOT IN (777,999,7777,9999,.) THEN DO;
 IF 0050 LE WEIGHT2 < 0650 THEN WTKG3=WEIGHT2*0.4535924;
 ELSE IF 9023 LE WEIGHT2 < 9295 THEN WTKG3=WEIGHT2-9000;
END;
```

Section 8: Demographics

_BMI5 *Calculated variable for body mass index (BMI).* _BMI5 is derived from WTKG3 and HTM4. It is calculated by dividing WTKG3 by HTM4².

1 - 9999	1 or greater	Respondents calculated body mass index (BMI) {units=kilograms per meter squared}. (_BMI5 = WTKG3 / (HTM4xHTM4))
.	Don't know/ Refused/Missing	Respondents who had a missing value for their height in meters or weight in kilograms. (WTKG3=missing or HTM4=missing or _BMI5<12.00 or _BMI5>=100 or PREGNANT=1)

SAS Code:

```
IF (WTKG3 NOTIN (.)) AND (HTM4 NOTIN (.)) THEN _BMI5=WTKG3/(HTM4
** 2);
 ELSE _BMI5=.;
IF _BMI5 NE . THEN _BMI5=ROUND(_BMI5,.01);
 IF _BMI5 > 99.99 THEN _BMI5=.;
 IF _BMI5 < 12.00 THEN _BMI5=.;
IF PREGNANT=1 THEN _BMI5=.;
```

Section 8: Demographics

_BMI5CAT *Calculated variable for four-categories of body mass index (BMI).* _BMI5CAT is derived from _BMI5.

1	Underweight	Respondents classified as underweight based on body mass index. (_BMI5 < 18.50)
2	Normal Weight	Respondents classified as normal weight based on body mass index. (18.50 <= _BMI5 < 25.00)
3	Overweight	Respondents classified as overweight based on body mass index. (25.00 <= _BMI5 < 30.00)
4	Obese	Respondents classified as obese based on body mass index. (30.00 <= _BMI5 < 99.99)
.	Don't know/ Refused/Missing	Respondents with an unknown, refused, or missing value for body mass index. (_BMI5=.)

SAS Code:

```
IF (0.00 LE _BMI5 < 18.50) THEN _BMI5CAT=1;
 ELSE IF (18.50 LE _BMI5 < 25.00) THEN _BMI5CAT=2;
 ELSE IF (25.00 LE _BMI5 < 30.00) THEN _BMI5CAT=3;
ELSE IF _BMI5 GE 30.00 THEN _BMI5CAT=4;
```

Section 8: Demographics

_RFBMI5 *Calculated variable for adults who have a body mass index greater than 25.00 (overweight or obese).* _RFBMI5 is derived from _BMI5.

1	No	Respondents not classified as overweight or obese based on body mass index. (12 <= _BMI5 < 25.00)
2	Yes	Respondents classified as overweight or obese based on body mass index. (25.00 <= _BMI5 <= 99.99)
9	Don't know/ Refused/Missing	Respondents with an unknown, refused, or missing value for body mass index. (_BMI5=missing)

SAS Code:

```
IF (12.00 LE _BMI5 < 25.00) THEN _RFBMI5=1;
 ELSE IF (25.00 <=  _BMI5 < 99.99) THEN _RFBMI5=2;
 ELSE _RFBMI5=9;
** Round off HTM4, WTKG3 and  BMI5 to 2 decimal places and
remove the decimal **;
 HTIN4 = round(HTIN4,1);
 HTM4 = round((HTM4*100),1);
 WTKG3 = round((WTKG3*100),1);
 IF _BMI5 NE . THEN _BMI5 = ROUND((_BMI5*100),1);
```

Section 8: Demographics

_CHLDCNT *Calculated variable for number of children in household.* _CHLDCNT is derived from CHILDREN.

1	No children in household	Respondents who reported having no children. (CHILDREN=88)
2	One child in household	Respondents who reported having one child. (CHILDREN=1)
3	Two children in household	Respondents who reported having two children. (CHILDREN=2)
4	Three children in household	Respondents who reported having three children. (CHILDREN=3)
5	Four children in household	Respondents who reported having four children. (CHILDREN=4)
6	Five or more children in household	Respondents who reported having five or more children. (5 <= CHILDREN < 87)
9	Don't know/ Not sure/ Missing	Respondents who reported they didn´t know, were not sure, refused or had a missing value for CHILDREN. (CHILDREN=99)

SAS Code:

```
IF CHILDREN = 88 THEN _CHLDCNT = 1;
 ELSE IF CHILDREN = 01 THEN _CHLDCNT = 2;
 ELSE IF CHILDREN = 02 THEN _CHLDCNT = 3;
 ELSE IF CHILDREN = 03 THEN _CHLDCNT = 4;
 ELSE IF CHILDREN = 04 THEN _CHLDCNT = 5;
ELSE IF 05 <= CHILDREN < 88 THEN _CHLDCNT = 6;
 ELSE IF CHILDREN = 99 THEN _CHLDCNT = 9;
 ELSE IF CHILDREN = . THEN _CHLDCNT = 9;
```

Section 8: Demographics

_EDUCAG *Calculated variable for level of education completed.* _EDUCAG is derived from EDUCA.

1	Did not graduate High School	Respondents who reported they did not graduate high school. (EDUCA=1,2,3)
2	Graduated High School	Respondents who reported they graduated high school. (EDUCA=4)
3	Attended College or Technical School	Respondents who reported they attended college or technical school. (EDUCA=5)
4	Graduated from College or Technical School	Respondents who reported they graduated from college or technical school. (EDUCA=6)
9	Don't know/ Not sure/Missing	Respondents who reported they didn´t know, were not sure, refused, or had a missing value for EDUCA. (EDUCA=9, missing)

SAS Code:

```
IF EDUCA IN (1,2,3) THEN _EDUCAG = 1;
 ELSE IF EDUCA IN (4) THEN _EDUCAG = 2;
 ELSE IF EDUCA IN (5) THEN _EDUCAG = 3;
 ELSE IF EDUCA IN (6) THEN _EDUCAG = 4;
 ELSE IF EDUCA IN (.,9) THEN _EDUCAG = 9;
```

Section 8: Demographics

_INCOMG *Calculated variable for income categories.* _INCOMG is derived from INCOME2.

1	Less than $15,000	Respondents whose reported income is less than $15,000. (INCOME2=1,2)
2	$15,000 to less than $25,000	Respondents whose reported income is $15,000 to less than $25,000. (INCOME2=3,4)
3	$25,000 to less than $35,000	Respondents whose reported income is $25,000 to less than $35,000. (INCOME2=5)
4	$35,000 to less than $50,000	Respondents whose reported income is $35,000 to less than $50,000. (INCOME2=6)
5	$50,000 or more	Respondents whose reported income is $50,000 or more. (INCOME2=7,8)
9	Don't know/ Not sure/Missing	Respondents who refused to answer, didn´t know or had a missing value for INCOME2. (INCOME2=77,99, or missing)

SAS Code:

```
IF INCOME2 IN (1,2) THEN _INCOMG = 1;
 ELSE IF INCOME2 IN (3,4) THEN _INCOMG = 2;
 ELSE IF INCOME2 IN (5) THEN _INCOMG = 3;
ELSE IF INCOME2 IN (6) THEN _INCOMG = 4;
 ELSE IF INCOME2 IN (7,8) THEN _INCOMG = 5;
 ELSE IF INCOME2 IN (77,99,.) THEN _INCOMG = 9;
```

Section 9: Tobacco Use

_SMOKER3 *Calculated variable for four-level smoker status: everyday smoker, someday smoker, former smoker, non-smoker.* _SMOKER3 is derived from SMOKE100 and SMOKDAY2.

1	Current smoker - now smokes every day	Respondents who reported having smoked at least 100 cigarettes in their lifetime and now smoke every day. (SMOKE100=1 and SMOKDAY2=1)
2	Current smoker - now smokes some days	Respondents who reported having smoked at least 100 cigarettes in their lifetime and now smoke some days. (SMOKE100=1 and SMOKDAY2=2)
3	Former smoker	Respondents who reported having smoked at least 100 cigarettes in their lifetime and currently do not smoke. (SMOKE100=1 and SMOKDAY2=3)
4	Never smoked	Respondents who reported they had not smoked at least 100 cigarettes in their lifetime. (SMOKE100=2)
9	Don't know/ Refused/Missing	Respondents who reported they didn't know if they had smoked 100 cigarettes in their lifetime, those who refused to answer if they had smoked 100 cigarettes in their lifetime, those who didn't know if they now smoked every day, some days or not at all, those who refused to answer if they now smoked every day, some days or not at all, or those with missing responses. (SMOKE100=7, 9, missing; or SMOKDAY2=7, 9, missing)

SAS Code:

```
IF SMOKE100=2 THEN _SMOKER3=4;
 ELSE IF SMOKE100=1 THEN DO;
 IF SMOKDAY2=1 THEN _SMOKER3=1;
 ELSE IF SMOKDAY2=2 THEN _SMOKER3=2;
 ELSE IF SMOKDAY2 = 3 THEN _SMOKER3=3;
 ELSE _SMOKER3=9;
 END;
 ELSE _SMOKER3=9;
```

Section 9: Tobacco Use

_RFSMOK3 *Calculated variable for adults who are current smokers.* _RFSMOK3 is derived from _SMOKER3.

1	No	Respondents who reported they had not smoked at least 100 cigarettes in their lifetime, those who reported having smoked 100 cigarettes in their lifetime but do not currently smoke. (_SMOKER3=3, 4)
2	Yes	Respondents who reported having smoked at least 100 cigarettes in their lifetime and currently smoke. (_SMOKER3=1, 2)
9	Don't know/ Refused/Missing	Respondents who reported they did not know if they had smoked 100 cigarettes in their lifetime, those who refused to answer if they had smoked 100 cigarettes in their lifetime, those who didn't know if they now smoked every day, some days or not at all, those who refused to answer if they now smoked every day, some days or not at all, or those with missing responses. (_SMOKER3=9)

SAS Code:

```
IF _SMOKER3 IN (1,2) THEN _RFSMOK3=2;
 ELSE IF _SMOKER3 IN (3,4) THEN _RFSMOK3=1;
 ELSE _RFSMOK3=9;
```

Section 10: E-Cigarettes

_ECIGSTS *Calculated variable for four-level e-cigarette smoker status: everyday e-cigarette user, someday e-cigarette user, former e-cigarette user, non-e-cigarette user.* _ECIGSTS is derived from ECIGARET and ECIGNOW.

1	Current E-cigarette user - uses every day	Respondents who reported having used E-cigarettes in their lifetime and now use E-cigarettes every day. (ECIGARET=1 and ECIGNOW=1)
2	Current E-cigarette user - uses some days	Respondents who reported having used E-cigarettes in their lifetime and now use E-cigarettes some days. (ECIGARET=1 and ECIGNOW=2)
3	Former E-cigarette user	Respondents who reported having used E-cigarettes in their lifetime and currently do not use E-cigarettes. (ECIGARET=1 and ECIGNOW=3)
4	Never used E-cigarettes	Respondents who reported they had not used E-cigarettes in their lifetime. (ECIGARET=2)
9	Don't know/ Refused/Missing	Respondents who reported they didn't know if they had used E-cigarettes in their lifetime, those who refused to answer if they had used E-cigarettes in their lifetime, those who didn't know if they now used E-cigarettes every day, some days or not at all, those who refused to answer if they now used E-cigarettes every day, some days or not at all, or those with missing responses. (ECIGARET=7, 9, missing; or ECIGNOW=7, 9, missing)

SAS Code:

```
IF ECIGARET=2 THEN _ECIGSTS=4;
 ELSE IF ECIGARET=1 THEN DO;
 IF ECIGNOW=1 THEN _ECIGSTS=1;
 ELSE IF ECIGNOW=2 THEN _ECIGSTS=2;
 ELSE IF ECIGNOW = 3 THEN _ECIGSTS=3;
 ELSE _ECIGSTS=9;
 END;
 ELSE _ECIGSTS=9;
```

Section 10: E-Cigarettes

_CURECIG *Calculated variable for adults who are current e-cigarette users.* _CURECIG is derived from _ECIGSTS.

1	Not currently using E-cigarettes	Respondents who reported they had not used E-cigarettes in their lifetime, those who reported having used E-cigarettes in their lifetime but do not currently use E-cigarettes. (_ECIGSTS=3, 4)
2	Current E-cigarette user	Respondents who reported having used E-cigarettes in their lifetime and currently use E-cigarettes. (_ECIGSTS=1, 2)
9	Don't know/ Refused/ Missing	Respondents who reported they did not know if they had used E-cigarettes in their lifetime, those who refused to answer if they had used E-cigarettes in their lifetime, those who didn't know if they now used E-cigarettes every day, some days or not at all, those who refused to answer if they now used E-cigarettes every day, some days or not at all, or those with missing responses. (_ECIGSTS=9)

SAS Code:

```
IF _ECIGSTS IN (1,2) THEN _CURECIG=2;
 ELSE IF _ECIGSTS IN (3,4) THEN _CURECIG=1;
 ELSE _CURECIG=9;
```

Section 11: Alcohol Consumption

DRNKANY5 *Calculated variable for adults who reported having had at least one drink of alcohol in the past 30 days..* DRNKANY5 is derived from ALCDAY5

1	Yes	Respondents who reported drinking at least one alcoholic beverage in the past 30 days. (1 <= ALCDAY <= 231)
2	No	Respondents who reported drinking no alcoholic beverages in the past 30 days. (ALCDAY5=888)
7	Don't know/ Not Sure	Respondents who reported not knowing if they drank at least one alcoholic beverage in the past 30 days. (ALCDAY5=777)
9	Refused/ Missing	Respondents who refused to answer or had a missing value for drinking at least one alcoholic beverage in the past 30 days. (ALCDAY5=999, Missing)

SAS Code:

```
IF 1 <= ALCDAY5 < 231 THEN DRNKANY5=1;
ELSE IF ALCDAY5=888 THEN DRNKANY5=2;
ELSE IF ALCDAY5=777 THEN DRNKANY5=7;
ELSE DRNKANY5=9;
```

Section 11: Alcohol Consumption

DROCDY3_ *Calculated variable for drink-occasions-per-day.* DROCDY3_ is derived from ALCDAY5 by dividing the ALCDAY5 variable by 7 days per week or 30 days per month.

0	No Drink-Occasions per day	Respondents reported no occasions per day that they consumed alcohol. (ALCDAY5=888)
1 - 899	Drink-Occasions per day	Respondents reported number of occasions per day that they consumed alcohol. (ALCDAY5 not equal to 777, 888, 999, or missing)
900	Don't know/Not Sure Or Refused/ Missing	Respondents who reported they did not know how many days they had at least one drink of alcohol, those who refused to answer how many days they had at least one drink of alcohol, those with missing responses. (ALCDAY5=777, 999, or missing)

SAS Code:

```
IF ALCDAY5 NOTIN (888,777,999,.) THEN DO;
 IF 101 LE ALCDAY5 LE 107 THEN DROCDY3_=(ALCDAY5-100)/7;
 ELSE IF 201 LE ALCDAY5 LE 230 THEN DROCDY3_=(ALCDAY5-200)/30;
 END;
ELSE IF ALCDAY5 EQ 888 THEN DROCDY3_=0;
 ELSE DROCDY3_=9;
* DROCDY3_=round((DROCDY3_*100),1);
 *This is done after all of the alcohol calculations but the
code is included here;
```

Section 11: Alcohol Consumption

_RFBING5 *Calculated variable for binge drinkers (males having five or more drinks on one occasion, females having four or more drinks on one occasion).* _RFBING5 is derived from DRNK3GE5 and ALCDAY5.

1	No	Respondents who reported they did not drink in the past 30 days, or those who reported that they did drink alcohol in the past 30 days but did not report having five or more drinks of alcohol on an occasion. (ALCDAY5<231 and DRNK3GE5=88; or ALCDAY5=888)
2	Yes	Respondents who reported they did drink in the past 30 days and had five or more drinks on one or more occasions in the past month. (ALCDAY5<231 and 1<=DRNK3GE5<=76)
9	Don't know/ Refused/Missing	Respondents who reported that they did not know if they had consumed five or more drinks of alcohol on one occasion or refused to answer if they had consumed five or more drinks of alcohol on one occasion or those with missing responses. (DRNK3GE5=77, 99, missing; or ALCDAY5=777, 999, missing)

SAS Code:

```
IF ALCDAY5 NOTIN (888) THEN DO;
 IF 1 LE DRNK3GE5 LE 76 THEN _RFBING5=2;
 ELSE IF DRNK3GE5 IN (.,77,99) THEN _RFBING5=9;
 ELSE IF DRNK3GE5 IN (88) THEN _RFBING5=1;
 END;
ELSE IF ALCDAY5 = 888 THEN _RFBING5=1;
  ELSE _RFBING5=9;
```

Section 11: Alcohol Consumption

_DRNKWEK *Calculated variable for calculated total number of alcoholic beverages consumed per week.* _DRNKWEK is derived from DROCDY3_ and AVEDRNK2 by multiplying the total number of drink occasions per day (DROCDY3_) by the average number of drinks per occasion (AVEDRNK2) times seven days.

0	Did not drink	Respondents who did not drink in the past month. (DROCDY3_=0)
1 - 98999	Number of drinks per week	Respondents reported number of alcoholic drinks in the past week. (0 < DROCDY3_ < 990)
99900	Don't know/ Not sure/ Refused/ Missing	Respondents who refused to report the number of alcohol drinks consumed per day or respondents who did not know the number of alcohol drinks consumed per day or those with missing responses or respondents who refused to report the number drink occasions per day or respondents who did not know the number of drink occasions per day or those with missing responses. (AVEDRNK2=.,77,99 or DROCDY3_=900)

SAS Code:

```
IF DROCDY3_=0 THEN _DRNKWEK=0;
ELSE IF DROCDY3_=9 THEN _DRNKWEK=999;
ELSE IF AVEDRNK2 IN (.,77,99) THEN _DRNKWEK=999;
ELSE _DRNKWEK=AVEDRNK2*DROCDY3_*7;
*  DRNKWEK=ROUND(( DRNKWEK*100),1);
*This is done after all of the alcohol calculations but the code
is included here;
```

Section 11: Alcohol Consumption

_RFDRHV5 *Calculated variable for heavy drinkers (adult men having more than 14 drinks per week and adult women having more than 7 drinks per week).* _RFDRHV5 is derived from _DRNKWEK, ALCDAY5, and SEX.

1	No	Male Respondents who reported having 14 drinks per week or less, or Female Respondents who reported having 7 drinks per week or less. (Sex=1 and _DRNKWEK <= 1400 or Sex=2 and _DRNKWEK <= 700 or ALCDAY5=888)
2	Yes	Male Respondents who reported having more than 14 drinks per week, or Female Respondents who reported having more than 7 drinks per week. (Sex=1 and _DRNKWEK > 1400 or Sex=2 and _DRNKWEK > 700)
9	Don't know/ Refused/Missing	Respondents with don´t know, refused or missing responses for ALCDAY5 or _DRNKWEK. (ALCDAY5=777, 999, or missing, or _DRNKWEK=99, or missing)

SAS Code:

```
IF SEX=1 AND _DRNKWEK NOTIN (999,.) THEN DO;
IF _DRNKWEK GT 14 THEN _RFDRHV5=2;
ELSE IF _DRNKWEK LE 14 THEN _RFDRHV5=1;
END;
ELSE IF SEX=2 AND _DRNKWEK NOTIN (999,.) THEN DO;
IF _DRNKWEK GT 7 THEN _RFDRHV5=2;
ELSE IF _DRNKWEK LE 7 THEN _RFDRHV5=1;
END;
ELSE IF ALCDAY5 EQ 888 THEN _RFDRHV5=1;
ELSE _RFDRHV5=9;
** ROUND OFF TO NO DECIMAL PLACES ** MULTIPLY BY 100 AND THEN
ROUND OFF TO NO DECIMAL PLACES AND THEN REMOVE THE DECIMAL
PLACES **;
 DROCDY3_=round((DROCDY3_*100),1);
 _DRNKWEK=ROUND((_DRNKWEK*100),1);
```

Section 12: Immunization

_FLSHOT6 *Calculated variable for adults aged 65+ who have had a flu shot within the past year.* _FLSHOT6 is derived from FLUSHOT6.

1	Yes	Respondents aged 65 or older who reported having a flu shot within the past 12 months. (AGE >= 65 and FLUSHOT6=1)
2	No	Respondents aged 65 or older who reported not having had a flu shot within the past 12 months. (AGE >= 65 and FLUSHOT6=2)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who did not know their age, those who refused to report their age, those who didn't know if they had a flu shot in the past 12 months, or those who refused to answer if they had a flu shot in the past 12 months, or those with missing responses. (AGE >= 65 and FLUSHOT6=7,9, or missing or AGE=7,9, or missing)
.	Age Less Than 65	Respondents aged 18-64. (18 <= AGE <= 64)

SAS Code:

```
IF AGE GE 65 THEN DO;
 IF FLUSHOT6=1 THEN _FLSHOT6=1;
 ELSE IF FLUSHOT6=2 THEN _FLSHOT6=2;
 ELSE IF FLUSHOT6 IN (.,7,9) THEN _FLSHOT6=9;
 END;
 ELSE IF AGE IN (.,7,9) THEN _FLSHOT6=9;
 ELSE _FLSHOT6=.;
```

Section 12: Immunization

_PNEUMO2 *Calculated variable for adults aged 65+ who have ever had a pneumonia vaccination.* _PNEUMO2 is derived from PNEUVAC3.

1	Yes	Respondents aged 65 or older who reported having a pneumonia shot. (AGE >= 65 and FLUSHOT3=1)
2	No	Respondents aged 65 or older who reported not having had a pneumonia shot. (AGE >= 65 and FLUSHOT3=2)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who did not know their age, those who refused to report their age, those who did not know if they ever had a pneumonia shot, those who refused to answer if they had a pneumonia shot, or those with missing responses. (AGE >= 65 and PNEUVAC3=7,9, or missing or AGE=7,9, or missing)
.	Age Less Than 65	Respondents aged 18-64. (18 <= AGE <= 64)

SAS Code:

```
IF AGE GE 65 THEN DO;
 IF PNEUVAC3=1 THEN _PNEUMO2=1;
 ELSE IF PNEUVAC3=2 THEN _PNEUMO2=2;
 ELSE IF PNEUVAC3 IN (.,7,9) THEN  PNEUMO2=9;
 ELSE _PNEUMO2=.;
 END;
 ELSE IF AGE IN (.,7,9) THEN _PNEUMO2=9;
 ELSE _PNEUMO2=.;
```

Section 13: Falls

There are no calculated variables for Section 13.

Section 14: Seatbelt Use

_RFSEAT2 *Calculated variable for always or nearly always wear seat belts calculated variable.* _RFSEAT2 is derived from SEATBELT.

1	Always or Almost Always Wear Seat Belt	Respondents who reported they always or nearly always use a seatbelt when they ride or drive in a car or they never drive or ride in a car. (SEATBELT=1,2,8)
2	Sometimes, Seldom, or Never Wear Seat Belt	Respondents who reported they sometimes, seldom or never use a seatbelt when they ride or drive in a car. (SEATBELT=3,4,5)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they don't know, are not sure, refused or with missing responses for if they use a seatbelt when they ride or drive in a car. (SEATBELT=7,9 or missing)

SAS Code:

```
IF SEATBELT IN (1,2,8) THEN _RFSEAT2=1;
ELSE IF SEATBELT IN (3,4,5) THEN _RFSEAT2=2;
ELSE _RFSEAT2=9;
```

Section 14: Seatbelt Use

_RFSEAT3 *Calculated variable for always wear seat belts calculated variable.* _RFSEAT3 is derived from SEATBELT.

1	Always Wear Seat Belt	Respondents who reported they always use a seatbelt when they ride or drive in a car or they never drive or ride in a car. (SEATBELT=1,8)
2	Don't Always Wear Seat Belt	Respondents who reported they nearly always, sometimes, seldom or never use a seatbelt when they ride or drive in a car. (SEATBELT=2,3,4,5)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they don't know, are not sure, refused or have missing responses to if they use a seatbelt when they ride or drive in a car. (SEATBELT=7,9 or missing)

SAS Code:

```
IF SEATBELT IN (1,8) THEN _RFSEAT3=1;
ELSE IF SEATBELT IN (2,3,4,5) THEN _RFSEAT3=2;
ELSE _RFSEAT3=9;
```

Section 15: Drinking and Driving

_DRNKDRV *Calculated variable for drinking and driving.* _DRNKDRV is derived from DRNKDRI2.

1	Have driven after having too much to drink	Respondents who have reported having driven after drinking too much (1 LE DRNKDRI2 LE 76, 78 LE DRNKDRI2 LE 87, 89 LE DRNKDRI2 LE 98)
2	Have not driven after having too much to drink	Respondents who have not reported having driven after drinking too much (DRNKDRI2=88)
9	Don't know/ Not Sure/ Refused/ Missing	Respondents with don´t know, refused, or missing responses for DRNKDRI2. (DRNKDRI2 =77,99 or rmissing)

SAS Code:

```
IF DRNKDRI2 IN (.,77,99) THEN _DRNKDRV=9;
ELSE IF DRNKDRI2=88 THEN _DRNKDRV=2;
ELSE _DRNKDRV=1;
```

Section 16: Breast and Cervical Cancer Screening

_RFMAM2Y *Calculated variable for women respondents aged 40+ who have had a mammogram in the past two years.* _RFMAM2Y is derived from SEX, AGE, HADMAM, and HOWLONG.

1	Yes	Female respondents aged 40 and older who have received a mammogram within the past two years. (Sex=2 and AGE >= 40 and HADMAM=1 and HOWLONG=1,2)
2	No	Female respondents aged 40 and older who have not received a mammogram within the past two years. (Sex=2 and AGE >= 40 and HADMAM=2 or HADMAM=1 and HOWLONG=3,4,5)
9	Don't know/ Not Sure/ Refused	Female respondents aged 40 and older with don't know, not sure, or refused responses for HADMAM or HOWLONG or female respondents with don't know, not sure, refused or missing responses for AGE, HADMAM or HOWLONG. (Sex=2 and HADMAM=7,9, missing or HOWLONG=7,9, missing or AGE=7,9,missing)
.	Missing or Age less than 40 or Male	Female respondents less than 40 years old, or male respondents. (SEX=1 or SEX=2 and AGE < 40)

SAS Code:

```
IF SEX=2 AND AGE GE 40 THEN DO;
IF HADMAM=1 THEN DO;
IF HOWLONG IN (1,2) THEN _RFMAM2Y=1;
ELSE IF HOWLONG IN (3,4,5) THEN _RFMAM2Y=2;
ELSE IF HOWLONG IN (7,9,.) THEN _RFMAM2Y=9;
END;
ELSE IF HADMAM=2 THEN _RFMAM2Y=2;
ELSE IF HADMAM IN (7,9,.) THEN _RFMAM2Y=9;
END;
ELSE IF SEX=2 AND AGE IN (.,7,9) THEN _RFMAM2Y=9;
ELSE _RFMAM2Y=.;
```

Section 16: Breast and Cervical Cancer Screening

_MAM5021 *Calculated variable for women respondents aged 50-74 who have had a mammogram in the past two years.* _MAM5021 is derived from SEX, AGE, HADMAM, and HOWLONG.

1	Received a mammogram within the past 2 years.	Female respondents aged 50-74 who have received a mammogram within the past two years. (SEX=2 and 50 <= AGE <= 74 and HADMAM=1 and HOWLONG=1,2)
2	Did not receive a mammogram within the past 2 years.	Female respondents aged 50-74 who have not received a mammogram within the past two years. (SEX=2 and 50 <= AGE <= 74 and HADMAM=2 or HADMAM=1 and HOWLONG=3,4,5)
.	Missing, Age less than 50 or greater than 74 or Male	Female respondents less than 50 years old, greater than 74 years old or male respondents. (SEX=1 or SEX=2 and AGE < 50 or SEX=2 and AGE > 74)

SAS Code:

```
IF SEX=2 AND 50 LE AGE LE 74 THEN DO;
  IF HADMAM=2 THEN _MAM5021=2;
 ELSE IF HADMAM=1 THEN DO;
 IF HOWLONG IN (1,2) THEN _MAM5021=1;
 ELSE IF HOWLONG IN (3,4,5) THEN _MAM5021=2;
 END;
 END;
```

Section 16: Breast and Cervical Cancer Screening

_RFPAP33 *Calculated variable for women respondents aged 21-65 who have had a pap test in the past three years.* _RFPAP33 is derived from the variables SEX, AGE, HADHYST2, HADPAP2, and LASTPAP2.

1	Received a Pap test within the past 3 years.	Female respondents aged 21-65, with intact cervix, who have received a pap smear within the past three years. (SEX=2 and 21 <= AGE <= 65 and HADHYST2 NE 1 and HADPAP2=1 and LASTPAP2=1,2,3)
2	Did not receive a Pap test within the past 3 years.	Female respondents aged 21-65, with intact cervix, who have not received a pap smear within the past three years. (SEX=2 and AGE GE 18 and HADHYST2 NE 1 and HADPAP2=2 or HADPAP2=1 and LASTPAP2=4,5)
.	Missing or Male	Female respondents aged 18-20 or aged 65+ or aged 21-65 with missing responses for HADPAP2 or LASTPAP2, or with yes, responses for having had a hysterectomy or male respondents. (SEX=2 and AGE < 21 or AGE > 65 or SEX=2 and 21 <= AGE <= 65 and HADHYST2=1 AND HADPAP2=missing or LASTPAP2=missing or SEX=1)

SAS Code:

```
IF SEX=2 AND HADHYST2=2 AND 21 LE AGE LE 65 THEN DO;
 IF HADPAP2=2 THEN _RFPAP33=2;
 ELSE IF HADPAP2=1 THEN DO;
 IF LASTPAP2 IN (1,2,3) THEN _RFPAP33=1;
 ELSE IF LASTPAP2 IN (4,5) THEN _RFPAP33=2;
 END;
 END;
```

Section 17: Prostate Cancer Screening

_RFPSA21 *Calculated variable for male respondents aged 40+ who have had a PSA test in the past 2 years.*

_RFPSA21 is derived from SEX, AGE, PSATEST1, and PSATIME.

1	Yes	Male respondents aged 40 and older who have had a PSA test within the past two years. (SEX=1 and AGE >= 40 and PSATEST1=1 and PSATIME=1 or 2)
2	No	Male respondents aged 40 and older who have not received a PSA test within the past two years. (SEX=1 and AGE >= 40 and PSATEST1=2 or PSATEST=1 and PSATIME=3 or 4 or 5)
9	Don't know/ Not Sure/ Refused	Male respondents aged 40 and older with don't know, not sure or refused responses for PSATEST or PSATIME or male respondents with don't know, not sure, refused or missing responses to AGE. (SEX=1 and AGE >= 40 and PSATEST1=7,9 or PSATIME=7,9 or SEX=1 and AGE=7,9,missing)
.	Missing or Age less than 40 or Female	Male respondents aged 40 and older with missing responses for PSATEST or PSATIME, Male respondents aged less than 40, or female respondents. (SEX=1 and AGE >=40 and PSATEST1=missing or PSATIME=missing or SEX=1 and AGE < 40 or SEX=2)

SAS Code:

```
IF (SEX=1) AND (AGE GE 40) THEN DO;
IF PSATEST1=1 THEN DO;
IF PSATIME IN (1,2) THEN _RFPSA21=1;
ELSE IF PSATIME IN (3,4,5) THEN _RFPSA21=2;
ELSE IF PSATIME IN (7,9) THEN _RFPSA21=9;
ELSE IF PSATIME=. THEN _RFPSA21=.;
END;
ELSE IF PSATEST1=2 THEN _RFPSA21=2;
ELSE IF PSATEST1 IN (7,9) THEN _RFPSA21=9;
ELSE IF PSATEST1=. THEN _RFPSA21=.;
END;
ELSE IF (SEX=1) AND AGE IN (.,7,9) THEN _RFPSA21=9;
ELSE _RFPSA21=.;
```

Section 18: Colorectal Cancer Screening

_RFBLDS3 *Calculated variable for respondents aged 50-75 who have had a blood stool test within the past year.* _RFBLDS3 is derived from AGE, BLDSTOOL, and LSTBLDS3.

1	Had a blood stool test in the past year	Respondents aged 50-75 who have had a blood stool test within the past year. (50<= AGE <=75 and BLDSTOOL=1 and LSTBLDS3=1,2)
2	Have not had a blood stool test in the past year	Respondents aged 50-75 who have not received a blood stool test within the past year. (50<= AGE <=75 and BLDSTOOL=2 or BLDSTOOL=1 and LSTBLDS3=3,4)
.	Missing, Age less than 50, Age greater than 75	Respondents aged 50 -75 with don´t know, refused or missing responses for BLDSTOOL or LSTBLDS3, or respondents aged less than 50, or respondents aged greater than 75. (50<= AGE <=75 and BLDSTOOL=missing or LSTBLDS3=missing or AGE<50 or AGE>75)

SAS Code:

```
IF 50 <= AGE <= 75 THEN DO;
 IF BLDSTOOL=2 THEN _RFBLDS3=2;
 ELSE IF BLDSTOOL=1 THEN DO;
 IF LSTBLDS3=1 THEN _RFBLDS3=1;
 ELSE IF LSTBLDS3 IN (2,3,4,5) THEN _RFBLDS3=2;
 END;
 END;
```

Section 18: Colorectal Cancer Screening

_COL10YR *Calculated variable for respondents aged 50-75 that who have had a colonoscopy in the past 10 years.* _COL10YR is derived from AGE, HADSIGM3 and LASTSIG3.

1	Received a colonoscopy within the past 10 years	Respondents aged 50-75 who have had a colonoscopy in the past 10 years (50<= AGE <=75 and HADSIGM3=1 and HADSGCO1=2 and LASTSIG3=1,2,3,4,5)
2	Did not receive a colonoscopy within the past 10 years	Respondents aged 50-75 who have not had a colonoscopy in the past 10 years. (50<= AGE <=75 and HADSIGM3=2, or HADSIGM3=2 and LASTSIG3=6)
.	Missing or Aged less than 50 or Aged greater than 75	Respondents aged 50-75 with missing responses for HADSIGM3 or LASTSIG3, or respondents aged less than 50, or respondents aged greater than 75. (50<= AGE <=75 and HADSIGM3=missing or LASTSIG3=missing or AGE < 50 or AGE > 75)

SAS Code:

```
IF 50 <= AGE <= 75 THEN DO;
 IF HADSIGM3=2 THEN _COL10YR=2;
 ELSE IF HADSIGM3=1 THEN DO;
 IF HADSGCO1=2 AND LASTSIG3 IN (1,2,3,4,5) THEN  COL10YR=1;
 ELSE IF LASTSIG3=6 THEN _COL10YR=2;
 END;
 END;
```

Section 18: Colorectal Cancer Screening

_HFOB3YR *Calculated variable for respondents aged 50-75 who have had a blood stool test within the past 3 years.* _HFOB3YR is derived from AGE, BLDSTOOL, HADSGCO1 and LSTBLDS3.

1	Received a home FOBT within the past 3 years	Respondents aged 50-75 who have had a blood stool test within the past 3 years. (50<= AGE <=75 and BLDSTOOL=1 and LSTBLDS3=1,2,3)
2	Did not receive a home FOBT within the past 3 years	Respondents aged 50-75 who have not received a blood stool test within the past 3 years. (50<= AGE <=75 and BLDSTOOL=2 or BLDSTOOL=1 and LSTBLDS3=4)
.	Missing or Age less than 50 or Age greater than 75	Respondents aged 50-75 with missing responses for BLDSTOOL or LSTBLDS3 or HADSGCO1, or respondents aged less than 50 or respondents aged greater than 75. (50<= AGE <=75 and BLDSTOOL=missing or LSTBLDS3=missing or AGE<50 or AGE>75)

SAS Code:

```
IF 50 <= AGE <= 75 THEN DO;
 IF BLDSTOOL=2 THEN _HFOB3YR=2;
 ELSE IF BLDSTOOL=1 THEN DO;
 IF LSTBLDS3 IN(1,2,3) THEN _HFOB3YR=1;
 ELSE IF LSTBLDS3 IN (4,5) THEN _HFOB3YR=2;
 END;
 END;
```

Section 18: Colorectal Cancer Screening

_FS5YR *Calculated variable for respondents aged 50-75 who have had a sigmoidoscopy within the past 5 years.* _FS5YR is derived from AGE, HADSIGM3, HADSGCO1 and LASTSIG3.

1	Received a sigmoidoscopy within the past 5 years	Respondents aged 50-75 who have had a sigmoidoscopy within the past 5 years. (50<= AGE <=75 and HADSIGM3=1 and HADSGCO1=1 and LASTSIG3=1,2,3,4)
2	Did not receive a sigmoidoscopy within the past 5 years	Respondents aged 50-75 who have not received a sigmoidoscopy within the past 5 years. (50<= AGE <=75 and HADSIGM3=2, or HADSIGM3=1 and LASTSIG3=5,6)
.	Missing or Age less than 50 or Age greater than 75	Respondents aged 50-75 with missing responses for HADSIGM3 or LASTSIG3 or HADSCO1, or respondents aged less than 50 or respondents aged greater than 75. (50<= AGE <=75 and HADSIGM3=missing or LASTSIG3=missing or HADSGCO1=missing or AGE<50 or AGE>75)

SAS Code:

```
IF 50 <= AGE <= 75 THEN DO;
 IF HADSIGM3=2 THEN _FS5YR=2;
 ELSE IF HADSIGM3=1 THEN DO;
 IF HADSGCO1=1 AND LASTSIG3 IN (1,2,3,4) THEN _FS5YR=1;
 ELSE IF LASTSIG3 IN (5,6) THEN _FS5YR=2;
 END;
 END;
```

Section 18: Colorectal Cancer Screening

_FOBTFS *Calculated variable for respondents aged 50-75 who have had a blood stool test within the past 3 years and a sigmoidoscopy within the past 5 years.* _FOBTFS is derived from AGE, _HFOB3YR, and _FS5YR

1	Did have had a sigmoidoscopy within the past 5 years and a blood stool test within the past 3 years.	Respondents aged 50–75 who have had a sigmoidoscopy within the past 5 years and a blood stool test within the past 3 years. (50<= AGE <=75 and _HFOB3YR=1 and _FS5YR=1)
2	Did not receive a sigmoidoscopy within the past 5 years or did not receive a blood stool test within the past 3 years	Respondents aged 50–75 who have not received a sigmoidoscopy within the past 5 years or did not receive a blood stool test within the past 3 years (50<= AGE <=75 and _HFOB3YR=2 or _FS5YR=2)
.	Missing or Aged less than 50 or Aged greater than 75	Respondents aged 50-75 with missing responses for _HFOB3YR or _FS5YR, or respondents aged less than 50 or respondents aged greater than 75. (50<= AGE <=75 and _HFOB3YR=missing or _FS5YR=missing or both are missing)

SAS Code:

```
IF 50 <= AGE <= 75 THEN DO;
 IF _HFOB3YR=1 AND _FS5YR=1 THEN _FOBTFS=1;
 ELSE IF _HFOB3YR=2 or _FS5YR=2 THEN _FOBTFS=2;
 END;
```

Section 18: Colorectal Cancer (CRC) Screening

_CRCREC *Calculated variable for respondents aged 50-75 who have fully met the USPSTF recommendation.* _CRCREC is derived from AGE,_HFOB1YR, _FOBTFS, _COL10YR, _HFOB3YR, HADSIGM3, LASTSIG3

1	Received one or more of the recommended CRC tests within the recommended time interval	Respondents age 50-75 who did received one or more of the recommended CRC tests within the recommended time interval (50 <= AGE <= 75 and _RFBLDS3=1 or _FOBTFS=1 or _COL10YR=1 or _HFOB3YR=1 AND HADSIGM3=1 AND LASTSIG3 IN (1,2,3,4))
2	Did not receive one or more of the recommended CRC tests within the recommended time interval	Respondents age 50-75 who did not receive one or more of the recommended CRC tests within the recommended time interval (50 <= AGE <= 75 and _RFBLDS3=2 AND _FOBTFS=2 AND _COL10YR=2)
.	Missing or Age less than 50 or Age greater than 75	Respondents aged 50-75 with missing responses for _HFOB1YR or _FOBTFS or _COL10YR or _HFOB3YR or HADSIGM3 or LASTSIG3, or respondents aged less than 50 or respondents aged greater than 75. (50 <= AGE <= 75 and _RFBLDS3=missing or don´t know or refused or FOBTFS=missing don´t know or refused or _COL10YR=missing don´t know or refused or AGE < 50 or AGE > 75)

SAS Code:

```
IF 50 <= AGE <= 75 THEN DO;
 IF _RFBLDS3=1 or _FOBTFS=1 or _COL10YR=1 THEN _CRCREC=1;
 ELSE IF _RFBLDS3=2 AND _FOBTFS=2 AND _COL10YR=2 THEN _CRCREC=2;
  ELSE IF _HFOB3YR=1 AND HADSIGM3=1 AND LASTSIG3 IN (1,2,3,4)
THEN _CRCREC=1;
 END;
```

Section 19: HIV/AIDS

_AIDTST3 *Calculated variable for adults who have ever been tested for HIV.* _AIDTST3 is derived from HIVTST6.

1	Yes	Respondents who reported to having been tested for HIV. (HIVTST6=1)
2	No	Respondents who did not report having been tested for HIV. (HIVTST6=2)
9	Don’t know/ Not Sure/ Refused	Respondents who reported they did not know if they had been tested for HIV or those who refused to answer if they had been tested for HIV. (HIVTST6=7,9)
.	Not asked or missing	Respondents with missing responses for HIVTST6. (HIVTST6=missing)

SAS Code:

```
IF HIVTST6=1 THEN _AIDTST3=1;
 ELSE IF HIVTST6=2 THEN _AIDTST3=2;
 ELSE IF HIVTST6 IN (7,9) THEN _AIDTST3=9;
 ELSE IF HIVTST6=. THEN _AIDTST3=.;
```