



2011

Behavioral Risk Factor Surveillance System

Calculated Variables

*(Version #29 - Revised: January 25, 2013)*



## **INTRODUCTION:**

This document provides information on calculated variables for the 2011 Behavioral Risk Factor Surveillance System. These variables are calculated from responses to questions in the survey. There are three types of calculated variables.

The first are those variables used to stratify and weight the data, which are not included in this document.

The second are intermediate variables. These are variables derived from a question response and are used to calculate some other variable or risk factor. For example: WTKG2 is derived from the WEIGHT2 variable in the survey. WTKG2 is then used to calculate the body mass index variable (\_BMI4). Most of the intermediate variables end with an underscore (Example: FTJUDAY\_), but not all of them do.

The third type of calculated variables are those used to categorize or classify respondents. Most of these begin with an underscore. (Example: \_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 that are associated with a "risk" for 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.

**NEW CALCULATED VARIABLES FOR 2011**

**\_ASTHMS1** was added in 2011.

**\_CASTHM1** was added in 2011.

**\_DRDXAR1** was added in 2011.

**\_FLSHOT5** was added in 2011.

**\_FRT16** was added in 2011.

**\_FRTNDX1** was added in 2011.

**\_FRTRESP** was added in 2011.

**\_FRTSRV1** was added in 2011.

**\_FRUITEX** was added in 2011.

**\_FRUTSUM** was added in 2011.

**\_FV5SRV1** was added in 2011.

**\_HCVU651** was added in 2011.

**\_LTASTH1** was added in 2011.

**\_MINACT1** was added in 2011.

**\_MINACT2** was added in 2011.

**\_MISFRTN** was added in 2011.

**\_MISVEGN** was added in 2011.

**\_PASTAER** was added in 2011.

**\_PASTRNG** was added in 2011.

**\_PA150R1** was added in 2011.

**\_PA3002L** was added in 2011.

**\_PA300R1** was added in 2011.

**\_PACAT** was added in 2011.

**\_PAINDEX** was added in 2011.

**\_PAREC** was added in 2011.

**\_VEG23** was added in 2011.

**\_VEGESUM** was added in 2011.

**\_VEGETEX** was added in 2011.

**\_VEGRES** was added in 2011.

**ACTINT1\_** was added in 2011.

**ACTINT2\_** was added in 2011.

**BEANDAY\_** was added in 2011.

**FC60\_** was added in 2011.

**FRUTDA1\_** was added in 2011.

**FTJUDA1\_** was added in 2011.

**GRENDAY\_** was added in 2011.

**MAXVO2\_** was added in 2011.

**NEW CALCULATED VARIABLES FOR 2011**

**METVAL1\_** was added in 2011.

**METVAL2\_** was added in 2011.

**ORNGDAY\_** was added in 2011.

**PADUR1\_** was added in 2011.

**PADUR2\_** was added in 2011.

**PAFREQ1\_** was added in 2011.

**PAFREQ2\_** was added in 2011.

**PAMIN\_** was added in 2011.

**PAMIN1\_** was added in 2011.

**PAMIN2\_** was added in 2011.

**PAMISS\_** was added in 2011.

**PAVIGM1\_** was added in 2011.

**PAVIGM2\_** was added in 2011.

**PAVIGMN\_** was added in 2011.

**STRFREQ\_** was added in 2011.

**VEGEDA1\_** was added in 2011.

**CALCULATED VARIABLES WITH CHANGED NAMES FOR 2011**

**\_AIDTST2** changed to **\_AIDTST3** due to the age restriction being removed.

**\_BMI4** changed to **\_BMI5** due to changes in the calculations.

**\_BMI4CAT** changed to **\_BMI5CAT** due to changes in the code.

**\_DRNKDY3** changed to **\_DRNKDY4** due to **DROCDY2\_** changing to **DROCDY3\_**.

**\_DRNKMO3** changed to **\_DRNKMO4** due to **\_DRNKDY3** changing to **\_DRNKDY4**.

**\_RFBING4** changed to **\_RFBING5** due to **ALCDAY4** changing to **ALCDAY5**.

**\_RFBMI4** changed to **\_RFBMI5** due to **\_BMI4** changing to **\_BMI5**.

**\_RFDRHV3** changed to **\_RFDRHV4** due to **\_DRNKDY3** changing to **\_DRNKDY4** and **ALCDAY4** changing to **ALCDAY5**.

**\_RFDRMN3** changed to **\_RFDRMN4** due to **\_DRNKDY3** changing to **\_DRNKDY4** and **ALCDAY4** changing to **ALCDAY5**.

**\_RFDRWM3** changed to **\_RFDRWM4** due to **\_DRNKDY3** changing to **\_DRNKDY4** and **ALCDAY4** changing to **ALCDAY5**.

**DRNKANY3** changed to **DRNKANY5** due the change from **ALCDAY3** to **ALCDAY5**.

**DROCDY2\_** changed to **DROCDY3\_** due to **ALCDAY4** changing to **ALCDAY5**.

**HTIN3** changed to **HTIN3** due to changes in the code.

**HTM3** changed to **HTM4** due to **HTIN3** changing to **HTIN4**.

**WTKG2** changed to **WTKG3** due to changes in the code.

### 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 that reported having excellent, very good or good health. (GENHLTH =1, 2, 3)   |
| 2 | Fair or Poor Health                      | Respondents that reported having fair or poor health. (GENHLTH =4, 5)  |
| 9 | Don't know/ Not Sure Or Refused/ Missing | Respondents that 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

There are no calculated Variables for Section 2.

### Section 3: Health Care Access

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

- |   |  |  |
|---|--|--|
| 1 | Have health care coverage                | Respondents that reported having health care coverage (18 <= AGE <= 64 and HLTHPLN1 = 1)   |
| 2 | Do not have health care coverage         | Respondents that reported not having health care coverage (18 <= AGE <= 64 and HLTHPLN1 = 2)   |
| 9 | Don't know/ Not Sure, Refused or Missing | Respondents that reported that reported 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: Hypertension Awareness

**\_RFHYPE5** *Calculated variable for adults who have been told they have high blood pressure by a doctor, nurse, or other health professional. \_RFHYPE5 is derived from BPHIGH4.*

- |   |  |  |
|---|--|--|
| 1 | No                                     | Respondents that were not told their pressure is high by a health professional (BPHIGH4=2,3,or 4)  |
| 2 | Yes                                    | Respondents that were told their pressure is high by a health professional (BPHIGH4=1)   |
| 9 | Don't know/ Not Sure/ Refused/ Missing | Respondents that reported they didn't know if they were told if their blood pressure is high, those who refused to answer if they were told if their blood pressure is high, and those with missing responses (BPHIGH4=7,9,or missing) |

**SAS Code:**

```
IF BPHIGH4 = 1 THEN _RFHYPE5=2;
ELSE IF BPHIGH4 = 2 THEN _RFHYPE5=1;
ELSE IF BPHIGH4 = 3 THEN _RFHYPE5=1;
ELSE IF BPHIGH4 = 4 THEN _RFHYPE5=1;
ELSE IF BPHIGH4 IN (.,7,9) THEN _RFHYPE5=9 ;
```

#### Section 5: Cholesterol Awareness

**\_CHOLCHK** *Calculated variable for cholesterol check within past five years. \_CHOLCHK is derived from BLOODCHO and CHOLCHK.*

- |   |  |  |
|---|--|--|
| 1 | Had cholesterol checked in past 5 years          | Respondents that reported having had their cholesterol checked within the past five years (BLOODCHO=1 and CHOLCHK=1,2,or 3)  |
| 2 | Did not have cholesterol checked in past 5 years | Respondents that reported not having had their cholesterol checked within the past five years (BLOODCHO=1 and CHOLCHK=4)   |
| 3 | Have never had cholesterol checked               | Respondents that reported never having had their cholesterol checked (BLOODCHO=2)  |
| 9 | Don't know/ Not Sure Or Refused/ Missing         | Respondents that reported they didn't know if they had their cholesterol checked by a health professional, those who refused to answer if they had their cholesterol checked by a health professional, and those with missing responses (BLOODCHO=7,9,or missing and CHOLCHK=7,9,or missing) |

**SAS Code:**

```
IF BLOODCHO=1 AND (1 LE CHOLCHK LE 3) THEN _CHOLCHK=1;
ELSE IF BLOODCHO=1 AND CHOLCHK=4 THEN _CHOLCHK=2;
ELSE IF BLOODCHO=2 AND CHOLCHK=. THEN _CHOLCHK=3;
ELSE IF BLOODCHO IN (.,7,9) OR CHOLCHK IN (.,7,9) THEN _CHOLCHK=9;
```

### Section 5: Cholesterol Awareness

<b>_RFCHOL</b>	<i>Calculated variable for adults who have had their cholesterol checked and have been told by a doctor, nurse, or other health professional that it was high. _RFCHOL is derived from BLOODCHO and TOLDHI2.</i>	
1	No	Respondents that reported having had their blood cholesterol checked but had not been told it was high (BLOODCHO=1 and TOLDHI2=2)
2	Yes	Respondents that reported having had their blood cholesterol checked and had been told that they have high blood cholesterol (BLOODCHO=1 and TOLDHI2=1)
9	Don't know/ Not Sure Or Refused/ Missing	Respondents that reported they didn't know if they had their blood cholesterol checked, those that reported they didn't know if they have been told their blood cholesterol was high, those who refused to answer if they had their blood cholesterol checked, those who refused to answer if they had been told that their blood cholesterol was high, and those with missing responses (BLOODCHO=1 and TOLDHI2=7,9,or missing)
.	Missing	Respondents that reported they have not had their blood cholesterol checked (BLOODCHO=2,7,9,or missing)
	<b>SAS Code:</b>	<pre>IF BLOODCHO=1 AND TOLDHI2=1 THEN _RFCHOL=2; ELSE IF BLOODCHO=1 AND TOLDHI2=2 THEN _RFCHOL=1; ELSE IF BLOODCHO=1 AND TOLDHI2 IN (.,7,9) THEN _RFCHOL=9; ELSE _RFCHOL=.;</pre>

### Section 6: Chronic Health Conditions

<b>_LTASTH1</b>	<i>Calculated variable for adults who have ever been told they have asthma. _LTASTH1 is derived from ASTHMA3.</i>	
1	No	Respondents that have not been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=2)
2	Yes	Respondents that 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 that reported they did not know if they had been told by a doctor, nurse or health professional that they had asthma, those that 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)
	<b>SAS Code:</b>	<pre>IF ASTHMA3=1 THEN _LTASTH1=2; ELSE IF ASTHMA3=2 THEN _LTASTH1=1; ELSE _LTASTH1=9;</pre>

**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 that 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 that 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 that reported they did not know if they had been told by a doctor, nurse or health professional that they had asthma, those that refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, those that did not 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=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 that 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)  |
| 2 | Former                                   | Respondents that 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 that 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 that reported they didn't know if they had been told by a doctor, nurse or health professional that they had asthma, those that refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, those that 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 that have had a doctor diagnose them as having some form of arthritis. \_DRDXAR1 is derived from HAVARTH3.*

- |   |  |  |
|---|--|--|
| 1 | Diagnosed with arthritis               | Respondents that have been told by a doctor they had arthritis (HAVARTH2=1)  |
| 2 | Not diagnosed with arthritis           | Respondents that have not been told by a doctor they had arthritis (HAVARTH2=2)  |
| . | Don't know/ Not Sure/ Refused/ Missing | Respondents that 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 (HAVARTH2=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: 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 that 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 that reported having smoked at least 100 cigarettes in their lifetime and now smoke some days. (SMOKE100=1 and SMOKDAY2=2)   |
| 3 | Former smoker                         | Respondents that reported having smoked at least 100 cigarettes in their lifetime and currently do not smoke. (SMOKE100=1 and SMOKDAY2=3)  |
| 4 | Never smoked                          | Respondents that reported they had not smoked at least 100 cigarettes in their lifetime. (SMOKE100=2)  |
| 9 | Don't know/ Refused/ Missing          | Respondents that reported they didn't know if they had smoked 100 cigarettes in their lifetime, those that refused to answer if they had smoked 100 cigarettes in their lifetime, those that didn't know if they now smoked every day, some days or not at all, those that 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 7: Tobacco Use**

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

- |   |                                 |  |
|---|---------------------------------|--|
| 1 | No                              | Respondents that reported they had not smoked at least 100 cigarettes in their lifetime, those that reported having smoked 100 cigarettes in their lifetime but do not currently smoke. (_SMOKER3=3, 4)  |
| 2 | Yes                             | Respondents that reported having smoked at least 100 cigarettes in their lifetime and currently smoke. (_SMOKER3=1, 2)   |
| 9 | Don't know/<br>Refused/ Missing | Respondents that reported they did not know if they had smoked 100 cigarettes in their lifetime, those that refused to answer if they had smoked 100 cigarettes in their lifetime, those that didn't know if they now smoked every day, some days or not at all, those that 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 8: Demographics**

**MRACEORG** *Calculated variable for mrace with trailing 7,8,9s removed. MRACEORG is derived from MRACE in the original order in which the data were received from the state territory. If MRACE is greater than 9 then any trailing 7, 8, or 9 is removed. If MRACE is less than or equal to 9 then MRACEORG is equal to MRACE.*

- |               |                         |  |
|---------------|-------------------------|--|
| 1 -<br>654321 | Race code(s)            | Respondents reported race or races in original order (MRACE=1, 2, 3, 4, 5, 6, or MRACE > 10) |
| 7             | Don't know/ Not<br>sure | Respondents that reported they didn't know, or weren't sure of their race. (MRACE=7)         |
| 9             | Refused                 | Respondents that refused to give their race. (MRACE=9)                                       |

**SAS Code:**

```
IF LENGTH(MRACE) > 1 THEN DO;
MRACEORG = PUT(COMPRESS(MRACE, '789'), 6.);
END;
ELSE DO;
MRACEORG=MRACE;
END;
```

**Section 8: Demographics**

**MRACEASC** *Calculated variable for mrace with 7,8,9s removed, in ascending order.* MRACEASC is derived from MRACEORG. The values that make up MRACEORG are sorted from smallest to largest.

1 - Race code(s) Respondents reported race or races in ascending order (MRACEORG=1, 2, 3, 4, 5, 6,  
123456 or MRACEORG > 10)

7 Don't know/ Not Respondents that reported they didn't know, or weren't sure of their race.  
sure (MRACEORG=7)

9 Refused Respondents that refused to give their race. (MRACEORG=9)

**SAS Code:**

```
IF LENGTH(TRIM(LEFT(MRACEORG))) > 1 THEN DO;
  LEN=LENGTH(RIGHT(MRACEORG));
  DO I = 1 TO LEN-1;
    DO J = 1 TO LEN-1 WHILE (SUBSTR(MRACEORG,J+1,1) NE ' ');
      IF SUBSTR(MRACEORG,J,1) > SUBSTR(MRACEORG,J+1,1) THEN
        SUBSTR(MRACEORG,J,2) = REVERSE(SUBSTR(MRACEORG,J,2));
      END;
    END;
  END;
  MRACEASC = INPUT(MRACEORG,6.);
```

**Section 8: Demographics**

**\_PRACE** *Calculated variable for preferred race category. \_PRACE is derived from MRACEASC and ORACE2. If MRACEASC has only one response, then \_PRACE= MRACEASC. If MRACEASC has more than one response then \_PRACE=ORACE2.*

1	White	Respondents that reported their race as white. (MRACE=1 or MRACEASC>11 and ORACE2=1)
2	Black or African American	Respondents that reported their race as black. (MRACE=2 or MRACEASC>11 and ORACE2=2)
3	Asian	Respondents that reported their race as Asian. (MRACE=3 or MRACEASC>11 and ORACE2=3)
4	Native Hawaiian or other Pacific Islander	Respondents that reported their race as Native Hawaiian or Pacific Islander. (MRACE=4 or MRACEASC>11 and ORACE2=4)
5	American Indian or Alaskan Native	Respondents that reported their race as American Indian or Alaska Native. (MRACE=5 or MRACEASC>11 and ORACE2=5)
6	Other race	Respondents who report they are of some other race group not listed in the question responses. (MRACE=6 or MRACEASC>11 and ORACE2=6)
7	No preferred race	Respondents that reported they are of more than one race group but did not report a preference or the preferred race is missing (MRACEASC>11 and ORACE2=7 or 9)
8	Multiracial but preferred race not asked	Respondents that 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. (MRACEASC >11 and ORACE2=8 or MRACEASC >11 and ORACE2=Missing)
77	Don't know/ Not sure	Respondents that reported they didn't know their race and did not answer the question about which race best represents them. (MRACEASC=7)
99	Refused	Respondents who refused to give their race and did not answer the question about which race best represents them. (MRACEASC=9)

**SAS Code:**

```
IF 1 LE MRACEASC LE 6 THEN _PRACE=MRACEASC;
ELSE IF MRACEASC EQ 7 THEN _PRACE=77;
ELSE IF MRACEASC EQ 9 THEN _PRACE=99;
ELSE IF MRACEASC GE 12 AND ORACE2 IN (7,9) THEN _PRACE=7;
ELSE IF MRACEASC GE 12 AND ORACE2 EQ . THEN _PRACE=8;
ELSE IF MRACEASC GE 12 AND ORACE2 EQ 8 THEN _PRACE=8;
ELSE IF 1 LE ORACE2 LE 6 THEN _PRACE=ORACE2;
```

**Section 8: Demographics**

**\_MRACE** *Calculated variable for multiracial race categorization. \_MRACE is derived from MRACEASC. If respondents report more than one race they are assigned to the multiracial category. Otherwise \_MRACE=MRACEASC.*

- |    |  |  |
|----|--|--|
| 1  | White only                                     | Respondents that reported they are white. (MRACEASC=1)   |
| 2  | Black or African American only                 | Respondents that report they are black. (MRACEASC=2)   |
| 3  | Asian Only                                     | Respondents that reported they are Asian. (MRACEASC=3)   |
| 4  | Native Hawaiian or other Pacific Islander only | Respondents that reported they are native Hawaiian or Pacific Islander. (MRACEASC=4)   |
| 5  | American Indian or Alaskan Native only         | Respondents that reported they are American Indian or Alaska Native. (MRACEASC=5)  |
| 6  | Other race only                                | Respondents that reported they are of some other race group not listed in the question responses. (MRACEASC=6)                                   |
| 7  | Multiracial                                    | Respondents that reported they are of more than one race group but do not specify a preferred race. (MRACEASC>11 and ORACE2=7, 8, 9, or missing) |
| 77 | Don't know/ Not sure                           | Respondents that reported they did not know their race. (MRACEASC=7)   |
| 99 | Refused  | Respondents that refused to give their race information. (MRACEASC=9)  |

**SAS Code:**

```
IF MRACEASC GE 12 THEN _MRACE = 7;
ELSE IF MRACEASC EQ 9 THEN _MRACE = 99;
ELSE IF MRACEASC EQ 7 THEN _MRACE = 77;
ELSE IF 1 LE MRACEASC LE 6 THEN _MRACE = MRACEASC;
```

**Section 8: Demographics**

RACE2	<i>Calculated variable for race ethnicity categories.</i> RACE2 is derived from _MRACE and HISPANC2. All respondents who report they are of Hispanic or Latino origin are coded as Hispanic.	
1	White only, non-Hispanic	Respondents that reported they are white and not of Hispanic origin. (_MRACE=1 and HISPANC2=2)
2	Black only, non-Hispanic	Respondents that reported they are black and not of Hispanic origin. (_MRACE=2 and HISPANC2=2)
3	Asian only, non-Hispanic	Respondents that reported they are Asian and not of Hispanic origin. (_MRACE=3 and HISPANC2=2)
4	Native Hawaiian or other Pacific Islander only, Non-Hispanic	Respondents that reported they are Native Hawaiian or Pacific Islander and not of Hispanic origin. (_MRACE=4 and HISPANC2=2)
5	American Indian or Alaskan Native only, Non-Hispanic	Respondents that reported they are American Indian or Alaska Native and not of Hispanic origin. (_MRACE=5 and HISPANC2=2)
6	Other race only, non-Hispanic	Respondents that reported they are of some other race group not listed in the question responses and are not of Hispanic origin. (_MRACE=6 and HISPANC2=2)
7	Multiracial, non-Hispanic	Respondents that reported they are of more than one race group and are not of Hispanic origin. (_MRACE=7 and HISPANC2=2)
8	Hispanic	Respondents that reported they are of Hispanic origin. (HISPANC2=1)
9	Don't know/ Not sure/ Refused	Respondents that 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. (_MRACE =77, 99 and HISPANC2=2 or HISPANC2=7, 9)

```

SAS Code:
IF HISPANC2 IN (7,9) OR (_MRACE IN(77,99) AND HISPANC2 EQ 2) THEN DO;
RACE2 = 9 ;
END;
ELSE IF HISPANC2 = 2 THEN DO;
IF _MRACE = 1 THEN RACE2 = 1 ;
ELSE IF _MRACE = 2 THEN RACE2 = 2 ;
ELSE IF _MRACE = 3 THEN RACE2 = 3 ;
ELSE IF _MRACE = 4 THEN RACE2 = 4 ;
ELSE IF _MRACE = 5 THEN RACE2 = 5 ;
ELSE IF _MRACE = 6 THEN RACE2 = 6 ;
ELSE IF _MRACE = 7 THEN RACE2 = 7 ;
END;
ELSE IF HISPANC2 = 1 THEN DO;
RACE2 = 8 ;
END;

```

**Section 8: Demographics**

**\_RACEG2** *Calculated variable for white non-hispanic race group. \_RACEG2 is derived from RACE2.*

- 1 Non-Hispanic White Respondents that reported they are white and not of Hispanic origin. (RACE2=1)
- 2 Non-White or Hispanic Respondents that reported they are non-white or of Hispanic origin. (RACE2=2, 3, 4, 5, 6, 7, 8)
- 9 Don't know/ Not sure/ Refused Respondents that 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. (RACE2=9)

**SAS Code:**

```
IF RACE2 = 1 THEN _RACEG2 = 1;
ELSE IF RACE2 IN (2,3,4,5,6,7,8) THEN _RACEG2 = 2;
ELSE IF RACE2 = 9 THEN _RACEG2 = 9;
```

**Section 8: Demographics**

**\_RACEGR2** *Calculated variable for five-level race ethnicity category. \_RACEGR2 is derived from RACE2.*

- 1 White only, Non-Hispanic Respondents that reported they are white and not of Hispanic origin. (RACE2=1)
- 2 Black only, Non-Hispanic Respondents that reported they are black and not of Hispanic origin. (RACE2=2)
- 3 Other race only, Non-Hispanic Respondents that reported they are not white and not black and not of Hispanic origin. (RACE2=3, 4, 5, 6)
- 4 Multiracial, Non-Hispanic Respondents that reported being multiracial but not of Hispanic origin. (RACE2=7)
- 5 Hispanic Respondents that reported they are of Hispanic origin. (RACE2=8)
- 9 Don't know/ Not sure/ Refused Respondents that 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. (RACE2=9)

**SAS Code:**

```
IF RACE2=1 THEN _RACEGR2=1;
ELSE IF RACE2=2 THEN _RACEGR2=2;
ELSE IF 3 LE RACE2 LE 6 THEN _RACEGR2=3;
ELSE IF RACE2=7 THEN _RACEGR2=4;
ELSE IF RACE2=8 THEN _RACEGR2=5;
ELSE IF RACE2=9 THEN _RACEGR2=9;
```

### Section 8: Demographics

**\_RACE\_G** *Calculated variable for race groups used for internet prevalence tables. \_RACE\_G is derived from \_RACEGR2.*

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

**SAS Code:**

```
IF _RACEGR2 = 1 THEN _RACE_G = 1;
ELSE IF _RACEGR2 = 2 THEN _RACE_G = 2;
ELSE IF _RACEGR2 = 3 THEN _RACE_G = 4;
ELSE IF _RACEGR2 = 4 THEN _RACE_G = 5;
ELSE IF _RACEGR2 = 5 THEN _RACE_G = 3;
```

### Section 8: Demographics

**\_CNRACE** *Calculated variable for number of census race categories chosen. \_CNRACE is derived from MRACEASC and is equal to the number of "census" race categories chosen.*

0	Other/ do not know/ refused	No census race categories chosen by the respondent. (6 <= MRACEASC <= 9)
1	1 category chosen	One census race category chosen by the respondent. (MRACEASC=1)
2	2 category chosen	Two census race categories chosen by the respondent. (MRACEASC=2)
3	3 category chosen	Three census race categories chosen by the respondent. (MRACEASC=3)
4	4 category chosen	Four census race categories chosen by the respondent. (MRACEASC=4)
5	5 category chosen	Five census race categories chosen by the respondent. (MRACEASC=5)

**SAS Code:**

```
** REMOVES EXTRA CHARACTERS **;
MRACE_=COMPRESS(MRACEASC, '679');
** REMOVES BLANK SPACES **;
IF MRACEASC NOTIN (6,7,9) THEN DO;
_CNRACE=LENGTH(COMPRESS(MRACE_));
END;
ELSE DO;
_CNRACE=0;
END;
```



**Section 8: Demographics**

**\_CNRACEC** *Calculated variable for number of census race categories chosen, collapsed.* \_CNRACEC is derived from \_CNRACE.

- 1 One category chosen One census race category chosen by the respondent. (\_CNRACE=1)
- 2 Two or more categories chosen Two or more census race categories chosen by the respondent. (\_CNRACE>1)
- . \_CNRACE = 0 or missing No census race categories chosen by the respondent. (\_CNRACE=0)

**SAS Code:**

```
IF _CNRACE EQ 0 THEN _CNRACEC=. ;  
ELSE IF _CNRACE EQ 1 THEN _CNRACEC=1 ;  
ELSE _CNRACEC=2 ;
```

## 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 that 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 that 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**

<b>_AGE_G</b>	<i>Calculated variable for six-level imputed age category. _AGE_G is derived from _IMPAGE (imputed age).</i>	
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)
	<b>SAS Code:</b>	<pre> IF (18&lt;=_IMPAGE&lt;=24) THEN _AGE_G = 1; ELSE IF (25&lt;=_IMPAGE&lt;=34) THEN _AGE_G = 2; ELSE IF (35&lt;=_IMPAGE&lt;=44) THEN _AGE_G = 3; ELSE IF (45&lt;=_IMPAGE&lt;=54) THEN _AGE_G = 4; ELSE IF (55&lt;=_IMPAGE&lt;=64) THEN _AGE_G = 5; ELSE IF (_IMPAGE &gt;= 65) THEN _AGE_G = 6;                     </pre>

**Section 8: Demographics**

<b>HTIN4</b>	<i>Calculated variable for reported height in inches. HTIN4 is derived from HEIGHT2. HTIN4 is calculated by adding the foot portion of HEIGHT2 multiplied by 12, to the inch portion.</i>	
36 - 95	Height in inches	Respondents calculated height in inches. (HTIN4=(height in feet x 12) + height in inches)
999	Don't know/ Refused/ Missing	Respondents that reported they didn't know, were not sure, refused to report or had missing responses for their height. (HEIGHT3=777, 999, 7777, 9999 or missing or HEIGHT3 < 36 inches or HEIGHT3 > 95 inches)
	<b>SAS Code:</b>	<pre> IF 300&lt;=HEIGHT3&lt;=311 THEN HTIN4=( (HEIGHT3-300)+36 ); ELSE IF 400&lt;=HEIGHT3&lt;=411 THEN HTIN4=( (HEIGHT3-400)+48 ); ELSE IF 500&lt;=HEIGHT3&lt;=511 THEN HTIN4=( (HEIGHT3-500)+60 ); ELSE IF 600&lt;=HEIGHT3&lt;=611 THEN HTIN4=( (HEIGHT3-600)+72 ); ELSE IF 700&lt;=HEIGHT3&lt;=711 THEN HTIN4=( (HEIGHT3-700)+84 );                     </pre>

### Section 8: Demographics

HTM4	<i>Calculated variable for reported height in meters.</i> 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.
091	Height in meters [2 implied decimal places] Respondents reported or calculated height in meters. (HTM4=HTIN4 x 0.0254 or HTM4 = (HEIGHT3 - 9000) ÷ 100)
999	Don't know/ Refused/ Missing Respondents that reported they didn't know, were not sure, refused to report or had missing responses for their height. (HEIGHT3=777, 999, 7777, 9999 or missing or HEIGHT3 < 0.91 meters or HEIGHT3 2.44 meters)
	<b>SAS Code:</b> IF 300 <= HEIGHT3 <= 711 THEN HTM4=HTIN4*0.0254; ELSE IF 9091 <= HEIGHT3 < 9244 THEN HTM4=(HEIGHT3-9000)/100;

### Section 8: Demographics

WTKG3	<i>Calculated variable for reported weight in kilograms.</i> WTKG3 is derived from WEIGHT2 by multiplying WEIGHT2 by 0.4535924 kg per lb.
1 - 99998	Weight in kilograms [2 implied decimal places] Respondents reported or calculated weight in kilograms.
99999	Don't know/ Refused/ Missing Respondents that reported they didn't know, were not sure, refused to report or had missing responses for their weight.
	<b>SAS Code:</b> ** 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	<i>Calculated variable for body mass index (bmi).</i> _BMI5 is derived from WTKG3 and HTM4. It is calculated by dividing WTKG3 by HTM4 <sup>2</sup> .
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 that 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)
	<b>SAS Code:</b> 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. ( $18.50 \leq \_BMI5 < 25.00$ ) |
| 3 | Overweight                      | Respondents classified as overweight based on body mass index. ( $25.00 \leq \_BMI5 < 30.00$ )    |
| 4 | Obese                           | Respondents classified as obese based on body mass index. ( $30.00 \leq \_BMI5 < 99.99$ )         |
| . | Don't know/<br>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. ( $12 \leq \_BMI5 < 25.00$ )   |
| 2 | Yes                             | Respondents classified as overweight or obese based on body mass index. ( $25.00 \leq \_BMI5 \leq 99.99$ ) |
| 9 | Don't know/<br>Refused/ Missing | Respondents with an unknown, refused, or missing value for body mass index. ( $\_BMI5 = \text{missing}$ )  |

**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 that reported having no children. (CHILDREN=88)   |
| 2 | One child in household             | Respondents that reported having one child. (CHILDREN=1)  |
| 3 | Two children in household          | Respondents that reported having two children. (CHILDREN=2)   |
| 4 | Three children in household        | Respondents that reported having three children. (CHILDREN=3)   |
| 5 | Four children in household         | Respondents that reported having four children. (CHILDREN=4)  |
| 6 | Five or more children in household | Respondents that reported having five or more children. (5 <= CHILDREN < 87)  |
| 9 | Don't know/ Not sure/ Missing      | Respondents that 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 that reported they did not graduate high school. (EDUCA=1,2,3)   |
| 2 | Graduated High School                      | Respondents that reported they graduated high school. (EDUCA=4)  |
| 3 | Attended College or Technical School       | Respondents that reported they attended college or technical school. (EDUCA=5)   |
| 4 | Graduated from College or Technical School | Respondents that reported they graduated from college or technical school. (EDUCA=6)                                     |
| 9 | Don't know/ Not sure/ Missing              | Respondents that 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 that 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: Fruits & Vegetables**

FTJUDA1\_ *Calculated variable for fruit juice intake in times per day.* FTJUDA1\_ converts the FRUITJU1 variable to a per day response. (Two implied decimal places)

0 - 9999 Times per day Respondents reported intake of fruit juice per day (FRUITJU1 not equal to 777,999, or missing)

Don't know/ Not Sure Or Refused/ Missing Respondents who reported they didn't know the number of times fruit juice was consumed per day, those who refused to answer, and those with missing responses (FRUITJU1=777,999, or missing)

**SAS Code:**

```
IF 100 < FRUITJU1 < 200 THEN FTJUDA1_=FRUITJU1-100;
ELSE IF 200 < FRUITJU1 < 300 THEN
FTJUDA1_=(ROUND((FRUITJU1-200)/7,0.01));
ELSE IF 300 < FRUITJU1 < 400 THEN
FTJUDA1_=(ROUND((FRUITJU1-300)/30,0.01));
ELSE IF FRUITJU1 = 555 THEN FTJUDA1_=0;
ELSE IF FRUITJU1 = 300 THEN FTJUDA1_=0.02;
ELSE IF FRUITJU1 IN (.,777,999) THEN FTJUDA1_=.;
** ROUND OFF **;
FTJUDA1_=round((FTJUDA1_*100),1);
```

**Section 9: Fruits & Vegetables**

FRUTDA1\_ *Calculated variable for fruit intake in times per day.* FRUTDA1\_ converts the FRUIT1 variable to a per day response. (Two implied decimal places)

0 - 9999 Times per day Respondents reported intake of fruit per day (FRUIT1 not equal to 777,999, or missing)

Don't know/ Not Sure Or Refused/ Missing Respondents who reported they didn't know the number of times fruit was consumed per day, those who refused to answer, and those with missing responses (FRUIT1=777,999, or missing)

**SAS Code:**

```
IF 100 < FRUIT1 < 200 THEN FRUTDA1_=FRUIT1-100;
ELSE IF 200 < FRUIT1 < 300 THEN
FRUTDA1_=(ROUND((FRUIT1-200)/7,0.01));
ELSE IF 300 < FRUIT1 < 400 THEN
FRUTDA1_=(ROUND((FRUIT1-300)/30,0.01));
ELSE IF FRUIT1 = 555 THEN FRUTDA1_=0;
ELSE IF FRUIT1 = 300 THEN FRUTDA1_=0.02;
ELSE IF FRUIT1 IN (.,777,999) THEN FRUTDA1_=.;
** ROUND OFF **;
FRUTDA1_=round((FRUTDA1_*100),1);
```



**Section 9: Fruits & Vegetables**

BEANDAY\_ *Calculated variable for bean intake in times per day.* BEANDAY\_ converts the FVBEANS variable to a per day response (Two implied decimal places)

0 - 9999	Times per day	Respondents reported intake of beans per day (FVBEANS not equal to 777, 999, or missing)
.	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they didn't know the number of times beans were consumed per day, those who refused to answer, and those with missing responses (FVBEANS=777, 999, or missing)
	<b>SAS Code:</b>	<pre>IF 100 &lt; FVBEANS &lt; 200 THEN BEANDAY_=FVBEANS-100; ELSE IF 200 &lt; FVBEANS &lt; 300 THEN BEANDAY_=(ROUND((FVBEANS-200)/7,0.01)); ELSE IF 300 &lt; FVBEANS &lt; 400 THEN BEANDAY_=(ROUND((FVBEANS-300)/30,0.01)); ELSE IF FVBEANS = 555 THEN BEANDAY_=0; ELSE IF FVBEANS = 300 THEN BEANDAY_=0.02; ELSE IF FVBEANS IN (.,777,999) THEN BEANDAY_=.; ** ROUND OFF **; BEANDAY_=round((BEANDAY_*100),1);</pre>

**Section 9: Fruits & Vegetables**

GRENDAY\_ *Calculated variable for dark green vegetable intake in times per day.* GRENDAY\_ converts the FVGREEN variable to a per day response (Two implied decimal places)

0 - 9999	Times per day	Respondents reported intake of dark green vegetables per day (FVGREEN not equal to 777,999, or missing)
.	Don't know/ Not Sure Or Refused/ Missing	Respondents who reported they didn't know the number of times dark green vegetables were consumed per day, those who refused to answer, and those with missing responses (FVGREEN=777,999, or missing)
	<b>SAS Code:</b>	<pre>IF 100 &lt; FVGREEN &lt; 200 THEN GRENDAY_=FVGREEN-100; ELSE IF 200 &lt; FVGREEN &lt; 300 THEN GRENDAY_=(ROUND((FVGREEN-200)/7,0.01)); ELSE IF 300 &lt; FVGREEN &lt; 400 THEN GRENDAY_=(ROUND((FVGREEN-300)/30,0.01)); ELSE IF FVGREEN = 555 THEN GRENDAY_=0; ELSE IF FVGREEN = 300 THEN GRENDAY_=0.02; ELSE IF FVGREEN IN (.,777,999) THEN GRENDAY_=.; ** ROUND OFF **; GRENDAY_=round((GRENDAY_*100),1);</pre>

**Section 9: Fruits & Vegetables**

ORNGDAY\_ *Calculated variable for orange-colored vegetable intake in times per day.* ORNGDAY\_ converts the FVORANG variable to a per day response (Two implied decimal places)

0 - 9999 Times per day Respondents reported intake of orange-colored vegetables per day (FVORANG not equal to 777,999, or missing)

. Don't know/ Not Sure Or Refused/ Missing Respondents who reported they didn't know the number of times orange-colored vegetables were consumed per day, those who refused to answer, and those with missing responses (FVORANG=777,999, or missing)

**SAS Code:**

```
IF 100 < FVORANG < 200 THEN ORNGDAY_=FVORANG-100;
ELSE IF 200 < FVORANG < 300 THEN
ORNGDAY_=(ROUND((FVORANG-200)/7,0.01));
ELSE IF 300 < FVORANG < 400 THEN
ORNGDAY_=(ROUND((FVORANG-300)/30,0.01));
ELSE IF FVORANG = 555 THEN ORNGDAY_=0;
ELSE IF FVORANG = 300 THEN ORNGDAY_=0.02;
ELSE IF FVORANG IN (.,777,999) THEN ORNGDAY_=.;
** ROUND OFF **;
ORNGDAY_=round((ORNGDAY_*100),1);
```

**Section 9: Fruits & Vegetables**

VEGEDA1\_ *Calculated variable for vegetable intake in times per day.* VEGEDA1\_ converts the VEGETAB1 variable to a per day response. (Two implied decimal places)

0 - 9999 Times per day Respondents reported intake of other vegetables per day (VEGETAB1 not equal to 777,999, or missing)

. Don't know/ Not Sure Or Refused/ Missing Respondents who reported they didn't know the number of times other vegetables were consumed per day, those who refused to answer, and those with missing responses (VEGETAB1=777,999, or missing)

**SAS Code:**

```
IF 100 < VEGETAB1 < 200 THEN VEGEDA1_=VEGETAB1-100;
ELSE IF 200 < VEGETAB1 < 300 THEN
VEGEDA1_=(ROUND((VEGETAB1-200)/7,0.01));
ELSE IF 300 < VEGETAB1 < 400 THEN
VEGEDA1_=(ROUND((VEGETAB1-300)/30,0.01));
ELSE IF VEGETAB1 = 555 THEN VEGEDA1_=0;
ELSE IF VEGETAB1 = 300 THEN VEGEDA1_=0.02;
ELSE IF VEGETAB1 IN (.,777,999) THEN VEGEDA1_=.;
** ROUND OFF **;
VEGEDA1_=round((VEGEDA1_*100),1);
```

**Section 9: Fruits & Vegetables**

**\_MISFRTN** *Calculated variable for the number of missing fruit responses.* \_MISFRTN is derived from MFTJUDA1\_ and MFRUTDA1\_

- 0 No missing fruit responses Respondents with no missing fruit responses
- 1 - 2 Has 1 or 2 missing fruit responses Respondents with missing fruit responses

**SAS Code:**

```
IF FTJUDA1_=. THEN MFTJUDA1_=1;
ELSE MFTJUDA1_=0;
IF FRUTDA1_=. THEN MFRUTDA1_=1;
ELSE MFRUTDA1_=0;
_MISFRTN=SUM(MFTJUDA1_, MFRUTDA1_);
```

**Section 9: Fruits & Vegetables**

**\_MISVEGN** *Calculated variable for the number of missing vegetable responses.* \_MISVEGN is derived from MGRENDAY\_, MORNGDAY\_, MBEANDAY\_ and MVEGEDA1\_.

- 0 No missing vegetable responses Respondents with no missing vegetable responses
- 1 - 4 Has 1, 2, 3, or 4 missing vegetable responses Respondents with missing vegetable responses

**SAS Code:**

```
IF GRENDAY_=. THEN MGRENDAY_=1;
ELSE MGRENDAY_=0;
IF ORNGDAY_=. THEN MORNGDAY_=1;
ELSE MORNGDAY_=0;
IF BEANDAY_=. THEN MBEANDAY_=1;
ELSE MBEANDAY_=0;
IF VEGEDA1_=. THEN MVEGEDA1_=1;
ELSE MVEGEDA1_=0;
_MISVEGN=SUM(MGRENDAY_, MORNGDAY_, MBEANDAY_, MVEGEDA1_);
```

**Section 9: Fruits & Vegetables**

**\_FRTRESP** *Calculated variable for missing any fruit responses.* \_FRTRESP is derived from \_MISFRTN

- 0 Not Included - Missing Fruit Responses Respondents with a missing value for one of the fruit variables (1<=\_MISFRTN<=2)
- 1 Included - Not Missing Fruit Responses Respondents with no missing fruit variables (\_MISFRTN=0)

**SAS Code:**

```
_FRTRESP=0;
IF 1<=_MISFRTN<=2 THEN _FRTRESP=0;
ELSE IF _MISFRTN=0 THEN _FRTRESP=1;
```

**Section 9: Fruits & Vegetables**

**\_VEGRES** *Calculated variable for missing any vegetable responses.* \_VEGRES is derived from GRENDAY\_, ORNGDAY\_, BEANDAY\_, VEGEDA1\_ and \_MISVEGN.

0 Not Included - Missing Vegetable Responses Respondents with missing vegetable per day values (1<=\_MISVEGN<=4)

1 Included - Not Missing Vegetable Responses Respondents with no missing vegetable per day values (\_MISVEGN=0)

. Not asked or Missing Respondents with a 99 value for all vegetable per day variables.

**SAS Code:** `_VEGRES=0;  
IF 1<=_MISVEGN<=4 THEN _VEGRES=0;  
ELSE IF _MISVEGN=0 THEN _VEGRES=1;`

**Section 9: Fruits & Vegetables**

**\_FRUTSUM** *Calculated variable for total fruits consumed per day.* \_FRUTSUM is derived from the individual fruit variables (FTJUDA1\_, FRUTDA1\_). Values for don't know, refused, or missing" (99) are excluded from the sum.

0 - 99998 Number of Fruits consumed per day (one implied decimal place) Number of Fruits consumed per day (one implied decimal place) (FTJUDA1\_+FRUTDA1\_)

. Not asked or Missing Respondents with a 99 value for all four fruits per day variables.

**SAS Code:** `_FRUTSUM=SUM( (FTJUDA1_/100) , (FRUTDA1_/100) );  
_FRUTSUM=round( (_FRUTSUM*100) , 1 );`

**Section 9: Fruits & Vegetables**

**\_VEGESUM** *Calculated variable for total vegetables consumed per day.* \_VEGESUM is derived from the individual vegetable variables (GRENDAY\_, ORNGDAY\_, BEANDAY\_, and VEGEDA1\_). Values for don't know, refused, or missing" (99) are excluded from the sum.

0 - 99998 Number of Vegetables consumed per day (one implied decimal place) Sum of all vegetable per day values (GRENDAY\_+ORNGDAY\_+BEANDAY\_+VEGEDA1\_)

. Not asked or Missing Respondents with a 99 value for all vegetable per day variables.

**SAS Code:** `_VEGESUM=SUM( (GRENDAY_/100) , (ORNGDAY_/100) , (BEANDAY_/100) , (VEGEDA1_/100) );  
_VEGESUM=round( (_VEGESUM*100) , 1 );`

**Section 9: Fruits & Vegetables**

**\_FRT16** *Calculated variable for reported consuming fruit >16 per day.* \_FRT16 is derived from \_FRUTSUM

0	Not Included - Values are too high	Respondents with an out of range value for sum of fruits per day (_FRUTSUM>16)
1	Included - Values are in accepted range	Respondents with value for sum of fruits per day in acceptable range (_FRUTSUM<=16)
.	Not asked or Missing	Respondents with a 99 value for both fruit per day variables.

**SAS Code:** IF (\_FRUTSUM/100)>16 THEN \_FRT16=0;  
ELSE IF (\_FRUTSUM/100)<=16 THEN \_FRT16=1;

**Section 9: Fruits & Vegetables**

**\_VEG23** *Calculated variable for reported consuming vegetables >23 per day.* \_VEG23 is derived from VEGESUM

0	Not Included - Values are too high	Respondents with an out of range value for sum of vegetables per day (_VEGESUM>23)
1	Included - Values are in accepted range	Respondents with value for sum of vegetables per day in acceptable range (_VEGESUM<=23)
.	Not asked or Missing	Respondents with a 99 value for all vegetable per day variables.

**SAS Code:** IF (\_VEGESUM/100)>23 THEN \_VEG23=0;  
ELSE IF (\_VEGESUM/100)<=23 THEN \_VEG23=1;

**Section 9: Fruits & Vegetables**

**\_FRUITEX** *Calculated variable for fruit exclusion from analyses.* \_FRUITEX is derived from \_FRTRESP

0	No missing values and in accepted range	Respondents with no missing fruit values and in accepted range (_FRTRESP=1 AND _FRT16=1)
1	Missing Fruit responses	Respondents missing at least one fruit per day value (_FRTRESP=0)
2	Fruit values out of range	Respondents with an out of range value for sum of fruits per day (_FRTRESP=1 AND _FRT16=0)
.	Not asked or Missing	Respondents with a 99 value for both fruit per day variables.

**SAS Code:** IF \_FRTRESP=1 AND \_FRT16=0 THEN \_FRUITEX=2;  
ELSE IF \_FRTRESP=1 AND \_FRT16=1 THEN \_FRUITEX=0;  
ELSE \_FRUITEX=1;

### Section 9: Fruits & Vegetables

**\_VEGETEX** *Calculated variable for vegetable exclusion from analyses.* \_VEGETEX is derived from \_VEGRES and \_VEG23.

- |   |   |   |
|---|---|---|
| 0 | No missing values and in accepted range | Respondents with no missing vegetable per day values and in all accepted range (_VEGRES=1 AND _VEG23=1) |
| 1 | Missing Vegetable responses             | Respondents with missing vegetable per day values (_VEGRES=0)   |
| 2 | Vegetable values out of range           | Respondents with out of range vegetable per day values (_VEGRES=1 AND _VEG23=0)                         |
| . | Not asked or Missing                    | Respondents with a 99 value for all vegetable per day variables.  |

**SAS Code:**

```
IF _VEGRES=1 AND _VEG23=0 THEN _VEGETEX=2;
ELSE IF _VEGRES=1 AND _VEG23=1 THEN _VEGETEX=0;
ELSE _VEGETEX=1;
```

### Section 10: Exercise (Physical Activity)

**\_TOTINDA** *Calculated variable for adults that report 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 that reported doing any physical activity or exercise. (EXERANY2=1)   |
| 2 | No physical activity or exercise in last 30 days | Respondents that report doing no physical activity or exercise. (EXERANY2=2)  |
| 9 | Don't know/ Refused/ Missing                     | Respondents that reported they didn't know, 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 10: Exercise (Physical Activity)**

METVAL1\_ *Calculated variable for activity met value for first activity.* METVAL1\_ is derived from EXTRACT01.

0 Activity MET Value Estimated first activity MET value

1 - 128 Activity MET Value Estimated first activity MET value  
(one implied decimal place)

. Not asked or Missing Respondents with a don't know, refused or missing value for the first activity (EXTRACT01=(77,99,.))

**SAS Code:**

```
IF EXTRACT01 IN (34,60,67,69) THEN METVAL1_=0;
IF EXTRACT01 IN (47) THEN METVAL1_=2.5;
IF EXTRACT01 IN (13,17,56,63) THEN METVAL1_=3;
IF EXTRACT01 IN (33) THEN METVAL1_=3.3;
IF EXTRACT01 IN (16,19,64) THEN METVAL1_=3.5;
IF EXTRACT01 IN (1,9,11,36) THEN METVAL1_=3.8;
  IF EXTRACT01 IN (59) THEN METVAL1_=4;
IF EXTRACT01 IN (20) THEN METVAL1_=4.3;
IF EXTRACT01 IN (70) THEN METVAL1_=4.5;
IF EXTRACT01 IN (15,18,26,43,46,52) THEN METVAL1_=5;
IF EXTRACT01 IN (48,50) THEN METVAL1_=5.3;
  IF EXTRACT01 IN (4,24,31) THEN METVAL1_=5.5;
IF EXTRACT01 IN (8,58) THEN METVAL1_=5.8;
IF EXTRACT01 IN (22,25,32,37,55,57,66,68) THEN METVAL1_=6;
IF EXTRACT01 IN (41) THEN METVAL1_=6.3;
IF EXTRACT01 IN (5) THEN METVAL1_=6.5;
IF EXTRACT01 IN (6,7) THEN METVAL1_=6.8;
IF EXTRACT01 IN (3,28,35,40,42,44,45,49,51) THEN METVAL1_=7;
IF EXTRACT01 IN (2,53,61) THEN METVAL1_=7.3;
IF EXTRACT01 IN (14) THEN METVAL1_=7.8;
IF EXTRACT01 IN (23,29,30,38,62) THEN METVAL1_=8;
IF EXTRACT01 IN (54) THEN METVAL1_=9;
IF EXTRACT01 IN (27) THEN METVAL1_=9.8;
IF EXTRACT01 IN (39) THEN METVAL1_=11;
IF EXTRACT01 IN (21) THEN METVAL1_=12;
IF EXTRACT01 IN (12) THEN METVAL1_=12.5;
IF EXTRACT01 IN (10) THEN METVAL1_=12.8;
METVAL1_=(ROUND(METVAL1_,0.1))*10;
```

**Section 10: Exercise (Physical Activity)**

METVAL2\_ *Calculated variable for activity met value for second activity.* METVAL2\_ is derived from EXTRACT02.

- 0 Activity MET Value Estimated second activity MET value (EXTRACT02=(34,60,67,69))
- 1 - 128 Activity MET Value Estimated second activity MET value (EXTRACT02=(34,60,67,69))  
(one implied decimal place)
- . Not asked or Missing Respondents with a don't know, refused or missing value for the second activity (EXTRACT02=(77,99,.))

**SAS Code:**

```

IF EXTRACT02 IN (34,60,67,69,88) THEN METVAL2_=0;
IF EXTRACT02 IN (47) THEN METVAL2_=2.5;
IF EXTRACT02 IN (13,17,56,63) THEN METVAL2_=3;
IF EXTRACT02 IN (33) THEN METVAL2_=3.3;
IF EXTRACT02 IN (16,19,64) THEN METVAL2_=3.5;
IF EXTRACT02 IN (1,9,11,36) THEN METVAL2_=3.8;
IF EXTRACT02 IN (59) THEN METVAL2_=4;
IF EXTRACT02 IN (20) THEN METVAL2_=4.3;
IF EXTRACT02 IN (70) THEN METVAL2_=4.5;
IF EXTRACT02 IN (15,18,26,43,46,52) THEN METVAL2_=5;
IF EXTRACT02 IN (48,50) THEN METVAL2_=5.3;
IF EXTRACT02 IN (4,24,31) THEN METVAL2_=5.5;
IF EXTRACT02 IN (8,58) THEN METVAL2_=5.8;
IF EXTRACT02 IN (22,25,32,37,55,57,66,68) THEN METVAL2_=6;
IF EXTRACT02 IN (41) THEN METVAL2_=6.3;
IF EXTRACT02 IN (5) THEN METVAL2_=6.5;
IF EXTRACT02 IN (6,7) THEN METVAL2_=6.8;
IF EXTRACT02 IN (3,28,35,40,42,44,45,49,51) THEN METVAL2_=7;
IF EXTRACT02 IN (2,53,61) THEN METVAL2_=7.3;
IF EXTRACT02 IN (14) THEN METVAL2_=7.8;
IF EXTRACT02 IN (23,29,30,38,62) THEN METVAL2_=8;
IF EXTRACT02 IN (54) THEN METVAL2_=9;
IF EXTRACT02 IN (27) THEN METVAL2_=9.8;
IF EXTRACT02 IN (39) THEN METVAL2_=11;
IF EXTRACT02 IN (21) THEN METVAL2_=12;
IF EXTRACT02 IN (12) THEN METVAL2_=12.5;
IF EXTRACT02 IN (10) THEN METVAL2_=12.8;
METVAL2_=(ROUND(METVAL2_,0.1))*10;
    
```



**Section 10: Exercise (Physical Activity)**

MAXVO2\_ *Calculated variable for estimated age-gender specific maximum oxygen consumption.*  
 MAXVO2\_ is derived from SEX and AGE.

0 - 501 Estimated Maximum Respondents estimated maximum oxygen consumption ((IF (SEX=1) THEN  
 Oxygen Consumption MAXVO2\_=60-(.55\*AGE)) or (IF (SEX=2) THEN MAXVO2\_=48-(.37\*AGE)))  
 (two implied decimal  
 places)

99900 Don't know/ Not Sure/ Refused/  
 Missing Respondents with a missing value for age

**SAS Code:** MAXVO2\_=999;  
 IF (18<= AGE <=99 & (SEX=1 OR SEX=2)) THEN DO;  
 IF (SEX=1) THEN MAXVO2\_=60-(.55\*AGE);  
 ELSE IF (SEX=2) THEN MAXVO2\_=48-(.37\*AGE);  
 END;  
 MAXVO2\_=(ROUND(MAXVO2\_,0.01)\*100);

**Section 10: Exercise (Physical Activity)**

FC60\_ *Calculated variable for estimated functional capacity.* FC60\_ is derived from MAXVO2\_.

0 - 8590 Estimated Respondents estimated functional capacity  
 Functional Capacity ((ROUND((.60\*(MAXVO2\_/100)/3.5),0.01))\*100)  
 (2 implied decimal  
 places)

99900 Don't know/ Not Sure/ Refused/  
 Missing Respondents with no estimate for functional capacity

**SAS Code:** IF (0 < MAXVO2\_/100 < 55) THEN FC60\_=(.60\*(MAXVO2\_/100))/3.5;  
 ELSE FC60\_=999;  
 FC60\_=(ROUND(FC60\_,0.01))\*100;

**Section 10: Exercise (Physical Activity)**

ACTINT1\_ *Calculated variable for estimated activity intensity for first activity.* ACTINT1\_ is derived from FC60\_ and METVAL1\_.

0	Not Moderate or Vigorous or No Activity	Respondent reported first activity to be one with estimated intensity not moderate or vigorous ((METVAL1_/10>=0))
1	Moderate	Respondent reported first activity to be one with moderate estimated intensity ((METVAL1_/10>=3.0))
2	Vigorous	Respondent reported first activity to be one with vigorous estimated intensity ((METVAL1_/10 >= FC60_/100))
.	Not asked or Missing	Respondent reported first activity to be one with no estimated intensity

**SAS Code:**

```
IF FC60_ < 99900 THEN DO;
IF ((METVAL1_/10) >= (FC60_/100)) THEN ACTINT1_=2;
ELSE IF ((METVAL1_/10) >= 3.0) THEN ACTINT1_=1;
ELSE IF ((METVAL1_/10) >= 0) THEN ACTINT1_=0;
END;
```

**Section 10: Exercise (Physical Activity)**

ACTINT2\_ *Calculated variable for estimated activity intensity for second activity.* ACTINT2\_ is derived from FC60\_ and METVAL2\_.

0	Not Moderate or Vigorous or No Activity	Respondent reported second activity to be one with estimated intensity not moderate or vigorous ((METVAL1_/10>=0))
1	Moderate	Respondent reported second activity to be one with moderate estimated intensity ((METVAL1_/10>=3.0))
2	Vigorous	Respondent reported second activity to be one with vigorous estimated intensity ((METVAL1_/10 >= FC60_/100))
.	Not asked or Missing	Respondent reported second activity to be one with no estimated intensity

**SAS Code:**

```
IF FC60_ < 99900 THEN DO;
IF ((METVAL2_/10) >= (FC60_/100)) THEN ACTINT2_=2;
ELSE IF ((METVAL2_/10) >= 3.0) THEN ACTINT2_=1;
ELSE IF ((METVAL2_/10) >= 0) THEN ACTINT2_=0;
END;
```

**Section 10: Exercise (Physical Activity)**

PADUR1\_ *Calculated variable for minutes of first activity.* PADUR1\_ is derived from EXERHMM1.

0 - 599	Minutes of Activity	Respondents number of minutes of first activity (INT(EXERHMM1/100)*60 + (EXERHMM1-INT(EXERHMM1/100)*100))
.	Not asked or Missing	Respondents that reported they didn't know, refused or had a missing value for EXERHMM1 (EXERHMM1= (777,999,.))
	<b>SAS Code:</b>	<pre>IF EXERHMM1 NOTIN (777,999,.) THEN DO; PADUR1_=INT(EXERHMM1/100)*60 + (EXERHMM1-INT(EXERHMM1/100)*100); END;</pre>

**Section 10: Exercise (Physical Activity)**

PADUR2\_ *Calculated variable for minutes of second activity.* PADUR2\_ is derived from EXERHMM2.

0 - 599	Minutes of Activity	Respondents number of minutes of second activity (INT(EXERHMM2/100)*60 + (EXERHMM2-INT(EXERHMM2/100)*100))
.	Not asked or Missing	Respondents that reported they didn't know, refused or had a missing value for EXERHMM2 (EXERHMM2= (777,999,.))
	<b>SAS Code:</b>	<pre>IF EXERHMM2 NOTIN (777,999,.) THEN DO; PADUR2_=INT(EXERHMM2/100)*60 + (EXERHMM2-INT(EXERHMM2/100)*100); END;</pre>

**Section 10: Exercise (Physical Activity)**

PAFREQ1\_ *Calculated variable for physical activity frequency per week for first activity.* PAFREQ1\_ is derived from EXERANY2 and EXEROFT1.

0 - 98999	Activity times per week (3 implied decimal places)	Respondents report times per week for the first activity (EXERANY2=1 and (101 <= EXEROFT1 <= 199) or (201 <= EXEROFT1 <= 299))
.	Not asked or Missing	Respondents that did not report doing the first activity or didn't know, refused or had a missing value for EXEROFT1 ((EXERANY2=1 and EXEROFT1 = (777,999,missing)) or (EXERANY2=2,7,9,missing))
	<b>SAS Code:</b>	<pre>IF EXERANY2=1 AND EXEROFT1 NOTIN (777,999,.) THEN DO; IF (101 &lt;= EXEROFT1 &lt;= 199) THEN PAFREQ1_=EXEROFT1-100; ELSE IF (201 &lt;= EXEROFT1 &lt;= 299) THEN PAFREQ1_=(EXEROFT1-200)/(30/7); END; ELSE PAFREQ1_=.; PAFREQ1_=(ROUND(PAFREQ1_,.001))*1000;</pre>

**Section 10: Exercise (Physical Activity)**

**PAFREQ2\_** *Calculated variable for physical activity frequency per week for second activity. PAFREQ2\_ is derived from EXERANY2 and EXEROFT2.*

0 - 98999	Activity times per week (3 implied decimal places)	Respondents report times per week for the second activity (EXERANY2=1 and (101 <= EXEROFT2 <= 199) or (201 <= EXEROFT2 <= 299))
.	Not asked or Missing	Respondents that did not report doing the second activity or didn't know, refused or had a missing value for EXEROFT2 ((EXERANY2=1 and EXEROFT2 = (777,999,missing)) or (EXERANY2=2,7,9,missing))
	<b>SAS Code:</b>	<pre>IF EXERANY2=1 AND EXEROFT2 NOTIN (777,999,.) THEN DO; IF (101 &lt;= EXEROFT2 &lt;= 199) THEN PAFREQ2_=EXEROFT2-100; ELSE IF (201 &lt;= EXEROFT2 &lt;= 299) THEN PAFREQ2_=(EXEROFT2-200)/(30/7); END; ELSE PAFREQ2_=.; PAFREQ2_=(ROUND(PAFREQ2_,.001))*1000;</pre>

**Section 10: Exercise (Physical Activity)**

**\_MINACT1** *Calculated variable for minutes of physical activity per week for first activity. \_MINACT1 IS DERIVED FROM PADUR1\_, PAFREQ1\_, ACTINT1\_ AND EXTRACT01.*

0	Minutes of Activity per week	Respondents that reported doing zero minutes of first activity per week ((PADUR1_>=0 AND PADUR1_<10) or (PADUR2_=. AND ACTINT2_=0))
1 - 99999	Minutes of Activity per week	Respondents that reported doing one or more minutes of first activity per week (ROUND((PAFREQ1_/1000)*PADUR1_,1))
.	Not asked or Missing	Respondents that reported they didn't know, refused or had a missing value for the number of minutes per week for the first activity
	<b>SAS Code:</b>	<pre>IF PADUR1_&gt;=10 THEN _MINACT1=ROUND((PAFREQ1_/1000)*PADUR1_,1); ELSE IF (PADUR1_&gt;=0 AND PADUR1_&lt;10) THEN _MINACT1=0; IF (ACTINT1_=0) THEN _MINACT1=0; IF EXTRACT01 IN (34,60,67,69) THEN _MINACT1=0;</pre>

**Section 10: Exercise (Physical Activity)**

**\_MINACT2** *Calculated variable for minutes of physical activity per week for second activity. \_MINACT2 IS DERIVED FROM PADUR1\_, PAFREQ1\_, ACTINT1\_ AND EXTRACT01.*

0	Minutes of Activity per week	Respondents that reported doing zero minutes of second activity per week ((PADUR2_>=0 AND PADUR2_<10) or (PADUR2_=. AND ACTINT2_=0))
1 - 99999	Minutes of Activity per week	Respondents that reported doing one or more minutes of second activity per week (ROUND((PAFREQ2_/1000)*PADUR2_))
.	Not asked or Missing	Respondents that reported they didn't know, refused or had a missing value for the number of minutes per week for the second activity
	<b>SAS Code:</b>	<pre>IF PADUR2_&gt;=10 THEN _MINACT2=ROUND((PAFREQ2_/1000)*PADUR2_); ELSE IF (PADUR2_&gt;=0 AND PADUR2_&lt;10) THEN _MINACT2=0; IF (ACTINT2_=0) THEN _MINACT2=0; IF EXTRACT02 IN (34,60,67,69,88) THEN _MINACT2=0;</pre>

**Section 10: Exercise (Physical Activity)**

**STRFREQ\_** *Calculated variable for strength activity frequency per week. STRFREQ\_ is derived from STRENGTH.*

0 - 98999	Strength Activity times per week (3 implied decimal places)	Respondents reported times per week for strengthening activity
.	Not asked or Missing <b>SAS Code:</b>	Respondents that did not report doing any strengthening activity or didn't know, refused or had a missing value for STRENGTH  <pre>IF STRENGTH IN (777,999,.) THEN STRFREQ_=.; ELSE IF (STRENGTH &lt; 200) THEN STRFREQ_=STRENGTH-100; ELSE IF (200 &lt; STRENGTH &lt; 300) THEN STRFREQ_=(STRENGTH-200)/(30/7); ELSE IF (STRENGTH = 888) THEN STRFREQ_=0; STRFREQ_=(ROUND(STRFREQ_,.001))*1000;</pre>

**Section 10: Exercise (Physical Activity)**

**PAMISS\_** *Calculated variable for missing physical activity data. PAMISS\_ is derived from ACTINT1\_, \_MINACT1, ACTINT2\_, \_MINACT2 and EXERANY2.*

0	Not Missing Physical Activity Data	Respondents with no missing physical activity data ((NMISS(ACTINT1_,_MINACT1,ACTINT2_,_MINACT2)=0 AND EXERANY2=1) or EXERANY2=2)
1	Missing Physical Activity Data	Respondents with missing physical activity data ((NMISS(ACTINT1_,_MINACT1,ACTINT2_,_MINACT2)>0 AND EXERANY2=1))
9	Don't know/ Not Sure/ Refused <b>SAS Code:</b>	Respondents that didn't know or refused to answer if they did any activity  <pre>IF (NMISS(ACTINT1_,_MINACT1,ACTINT2_,_MINACT2)&gt;0 AND EXERANY2=1) THEN PAMISS_=1; ELSE IF EXERANY2=1 OR EXERANY2=2 THEN PAMISS_=0; ELSE PAMISS_=9;</pre>

**Section 10: Exercise (Physical Activity)**

PAMIN1\_ *Calculated variable for minutes of physical activity per week for first activity.* PAMIN1\_ is derived from ACTINT1\_ and \_MINACT1.

0 - 99999	Minutes of Activity per week	Respondents minutes of first activity or vigorous equivalent minutes
.	Not asked or Missing	Respondents with no value for minutes of first activity and no value for vigorous equivalent minutes
	<b>SAS Code:</b>	<pre>IF ACTINT1_=2 THEN DO; PAMIN1_=ROUND(_MINACT1*2,1); END; ELSE IF ACTINT1_=1 THEN DO; PAMIN1_=ROUND(_MINACT1,1); END; IF ACTINT1_=0 THEN PAMIN1_=0;</pre>

**Section 10: Exercise (Physical Activity)**

PAMIN2\_ *Calculated variable for minutes of physical activity per week for second activity.* PAMIN2\_ is derived from ACTINT2\_ and \_MINACT2.

0 - 99999	Minutes of Activity per week	Respondents minutes of second activity or vigorous equivalent
.	Not asked or Missing	Respondents with no value for minutes of second activity and no value for vigorous equivalent minutes
	<b>SAS Code:</b>	<pre>IF ACTINT2_=2 THEN DO; PAMIN2_=ROUND(_MINACT2*2,1); END; ELSE IF ACTINT2_=1 THEN DO; PAMIN2_=ROUND(_MINACT2,1); END; IF ACTINT2_=0 THEN PAMIN2_=0;</pre>

**Section 10: Exercise (Physical Activity)**

PAMIN\_ *Calculated variable for minutes of total physical activity per week.* PAMIN\_ is derived from PAMIN1\_ and PAMIN2\_.

0 - 99999	Minutes of Activity per week	Respondents minutes of combined activity or vigorous equivalent minutes (ROUND((SUM(PAMIN1_,PAMIN2_)),1))
.	Not asked or Missing	Respondents with no value for minutes of combined activity and no value for vigorous equivalent minutes
	<b>SAS Code:</b>	<pre>PAMIN_=ROUND((SUM(PAMIN1_,PAMIN2_)),1);</pre>

**Section 10: Exercise (Physical Activity)**

PAVIGM1\_ *Calculated variable for minutes of vigorous physical activity per week for first activity.*  
PAVIGM1\_ is derived from ACTINT1\_ and \_MINACT1.

0 - Minutes of Activity Respondents vigorous activity minutes of first activity  
99999 per week

. Not asked or Respondents with no value for vigorous activity minutes of first activity  
Missing

**SAS Code:** IF ACTINT1\_=2 THEN PAVIGM1\_=ROUND(\_MINACT1,1);  
ELSE IF ACTINT1\_ IN (0,1) THEN PAVIGM1\_=0;

**Section 10: Exercise (Physical Activity)**

PAVIGM2\_ *Calculated variable for minutes of vigorous physical activity per week for second activity.*  
PAVIGM2\_ is derived from ACTINT2\_ and \_MINACT2.

0 - Minutes of Activity Respondents vigorous activity minutes of second activity  
99999 per week

. Not asked or Respondents with no value for vigorous activity minutes of second activity  
Missing

**SAS Code:** IF ACTINT2\_=2 THEN PAVIGM2\_=ROUND(\_MINACT2,1);  
ELSE IF ACTINT2\_ IN (0,1) THEN PAVIGM2\_=0;

**Section 10: Exercise (Physical Activity)**

PAVIGMN\_ *Calculated variable for minutes of total vigorous physical activity per week.* PAVIGMN\_ is derived from PAVIGM1\_ and PAVIGM2\_.

0 - Minutes of Activity Respondents vigorous activity minutes of combined activity  
99999 per week (ROUND((SUM(PAVIGM1\_,PAVIGM2\_)),1))

. Not asked or Respondents with no value for vigorous activity minutes of combined activity  
Missing

**SAS Code:** PAVIGMN\_=ROUND((SUM(PAVIGM1\_,PAVIGM2\_)),1);

**Section 10: Exercise (Physical Activity)**

<b>_PACAT</b>	<i>Calculated variable for physical activity categories. _PACAT is derived from EXERANY2, PAMIN_, PAMISS_ and PAVIGMN_.</i>	
1	Highly Active	Respondents that reported doing enough physical activity to meet the 300-minute (or vigorous equivalent) aerobic recommendation ((PAMIN_ > 300) or (PAVIGMN_ > 150))
2	Active	Respondents that reported doing 150-300 minutes (or vigorous equivalent) of physical activity (150 <= PAMIN_ <= 300 AND PAMISS_=0)
3	Insufficiently Active	Respondents that reported doing insufficient physical activity (11-149 minutes) (1 <= PAMIN_ <=149 AND PAMISS_=0)
4	Inactive	Respondents that reported doing no physical activity ((PAMIN_=0 AND PAMISS_=0) or (EXERANY2=2))
9	Don't know/ Not Sure/ Refused/ Missing	Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses
	<b>SAS Code:</b>	<pre> IF EXERANY2=2 THEN _PACAT=4;   ELSE IF EXERANY2 IN (.,7,9) THEN _PACAT=9; ELSE IF EXERANY2=1 THEN DO;   IF PAMIN_ &gt; 300 THEN _PACAT=1;   ELSE IF PAVIGMN_ &gt; 150 THEN _PACAT=1;   ELSE IF 150 &lt;= PAMIN_ &lt;= 300 AND PAMISS_=0 THEN _PACAT=2;   ELSE IF 1 &lt;= PAMIN_ &lt;=149 AND PAMISS_=0 THEN _PACAT=3;   ELSE IF PAMIN_=0 AND PAMISS_=0 THEN _PACAT=4;   ELSE _PACAT=9; END; </pre>

**Section 10: Exercise (Physical Activity)**

<b>_PAINDEX</b>	<i>Calculated variable for physical activity index. _PAINDEX is derived from EXERANY2, PAMISS_ and PAMIN_.</i>	
1	Meet Aerobic Recommendations	Respondents that reported doing 150+ minutes (or vigorous equivalent) of physical activity (PAMIN_ >= 150)
2	Did Not Meet Aerobic Recommendations	Respondents that reported doing insufficient physical activity (0-149 minutes) ((0 <= PAMIN_ < 150 AND PAMISS_=0) or (EXERANY2=2))
9	Don't know/ Not Sure/ Refused/ Missing	Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses
	<b>SAS Code:</b>	<pre> IF EXERANY2=2 THEN _PAINDEX=2;   ELSE IF EXERANY2 IN (.,7,9) THEN _PAINDEX=9; ELSE IF EXERANY2=1 THEN DO;   IF PAMIN_ &gt;= 150 THEN _PAINDEX=1;   ELSE IF 0 &lt;= PAMIN_ &lt; 150 AND PAMISS_=0 THEN _PAINDEX=2;   ELSE _PAINDEX=9; END; </pre>



**Section 10: Exercise (Physical Activity)**

**\_PA150R1** *Calculated variable for adults that participated in 150 minutes (or vigorous equivalent minutes) of physical activity per week.. \_PA150R1 is derived from EXERANY2, PAVIGMN\_, PAMISS\_, and PAMIN\_.*

- |   |   |   |
|---|---|---|
| 1 | 150+ minutes (or vigorous equivalent minutes) of physical activity  | Respondents that reported doing enough physical activity to meet the 150-minute aerobic recommendation (PAMIN_ >= 150 or PAVIGMN_ >= 75)  |
| 2 | 1-149 minutes (or vigorous equivalent minutes) of physical activity | Respondents that reported doing insufficient physical activity to meet the 150-minute aerobic recommendation (0 < PAMIN_ < 150 AND PAMISS_=0)   |
| 3 | 0 minutes (or vigorous equivalent minutes) of physical activity     | Respondents that reported doing no physical activity (PAMIN_=0 AND PAMISS_=0)   |
| 9 | Don't know/ Not Sure/ Refused/ Missing                              | Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses |

**SAS Code:**

```
IF EXERANY2=2 THEN _PA150R1=3;
ELSE IF EXERANY2 IN (7,9,..) THEN _PA150R1=9;
ELSE IF EXERANY2=1 THEN DO;
IF PAVIGMN_ >= 75 THEN _PA150R1=1;
ELSE IF PAMIN_ >= 150 THEN _PA150R1=1;
ELSE IF 0 < PAMIN_ < 150 AND PAMISS_=0 THEN _PA150R1=2;
ELSE IF PAMIN_=0 AND PAMISS_=0 THEN _PA150R1=3;
ELSE _PA150R1=9;
END;
```

**Section 10: Exercise (Physical Activity)**

*\_PA300R1* Calculated variable for adults that participated in 300 minutes (or vigorous equivalent minutes) of physical activity per week.. *\_PA300R1* is derived from EXERANY2, PAMISS\_ and PAMIN\_.

- |   |   |   |
|---|---|---|
| 1 | 301+ minutes (or vigorous equivalent minutes) of physical activity  | Respondents that reported doing enough physical activity to meet the 300-minute aerobic recommendation (PAMIN_ > 300)   |
| 2 | 1-300 minutes (or vigorous equivalent minutes) of physical activity | Respondents that reported doing insufficient physical activity to meet the 300-minute aerobic recommendation (0 < PAMIN_ <= 300 AND PAMISS_=0)  |
| 3 | 0 minutes (or vigorous equivalent minutes) of physical activity     | Respondents that reported doing no physical activity ((PAMIN_=0 AND PAMISS_=0) or (EXERANY2=2))   |
| 9 | Don't know/ Not Sure/ Refused/ Missing                              | Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses |

**SAS Code:**

```
IF EXERANY2=2 THEN _PA300R1=3;
ELSE IF EXERANY2 IN (9,7,.) THEN _PA300R1=9;
ELSE IF EXERANY2=1 THEN DO;
IF PAMIN_ > 300 THEN _PA300R1=1;
ELSE IF 0 < PAMIN_ <= 300 AND PAMISS_=0 THEN _PA300R1=2;
ELSE IF PAMIN_=0 AND PAMISS_=0 THEN _PA300R1=3;
ELSE _PA300R1=9;
END;
```

**Section 10: Exercise (Physical Activity)**

*\_PA3002L* Calculated variable for adults that participated in 300 minutes (or vigorous equivalent minutes) of physical activity per week (2-levels).. *\_PA3002L* is derived from *\_PA300R1*.

- |   |   |   |
|---|---|---|
| 1 | 301+ minutes (or vigorous equivalent minutes) of physical activity  | Respondents that reported doing enough physical activity to meet the 300+ minute aerobic recommendation (_PA300R1=1)  |
| 2 | 0-300 minutes (or vigorous equivalent minutes) of physical activity | Respondents that reported doing insufficient physical activity to meet the 300-minute aerobic recommendation (_PA300R1 IN (2,3))  |
| 9 | Don't know/ Not Sure/ Refused/ Missing                              | Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses |

**SAS Code:**

```
IF _PA300R1=1 THEN _PA3002L=1;
ELSE IF _PA300R1 IN (2,3) THEN _PA3002L=2;
ELSE _PA3002L=9;
```

**Section 10: Exercise (Physical Activity)**

**\_PASTRNG** *Calculated variable for muscle strengthening recommendation.* \_PASTRNG is derived from STRFREQ\_.

- |   |   |   |
|---|---|---|
| 1 | Meet muscle strengthening recommendations         | Respondents that reported doing enough physical activity to meet the strengthening recommendation (STRFREQ_/1000 >=2)   |
| 2 | Did not meet muscle strengthening recommendations | Respondents that reported doing physical activity but not enough to meet the strengthening recommendation (0 <= STRFREQ_/1000 < 2)  |
| 9 | Don't know/ Not Sure/ Refused/ Missing            | Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses |
- SAS Code:**
- ```
IF STRFREQ_/1000 >=2 THEN _PASTRNG=1;
ELSE IF 0 <= STRFREQ_/1000 < 2 THEN _PASTRNG=2;
ELSE _PASTRNG=9;
```

**Section 10: Exercise (Physical Activity)**

**\_PAREC** *Calculated variable for aerobic and strengthening guideline.* \_PAREC is derived from \_PASTRNG and \_PAINDEX.

- |   |                                        |                                                                                                                                                                                                                             |
|---|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Met Both Guidelines                    | Respondents that reported doing enough physical activity to meet the aerobic and strengthening recommendations (_PASTRNG=1 AND _PAINDEX=1)                                                                                  |
| 2 | Met Aerobic Guidelines Only            | Respondents that reported doing enough physical activity to meet the aerobic recommendation but not the strengthening (_PASTRNG=2 AND _PAINDEX=1)                                                                           |
| 3 | Met Strengthening Guidelines Only      | Respondents that reported doing enough physical activity to meet the strengthening recommendation but not the aerobic (_PASTRNG=1 AND _PAINDEX=2)                                                                           |
| 4 | Did not meet Either Guideline          | Respondents that reported doing physical activity but not enough to meet either the aerobic or strengthening recommendations (_PASTRNG=2 AND _PAINDEX=2)                                                                    |
| 9 | Don't know/ Not Sure/ Refused/ Missing | Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses |
- SAS Code:**
- ```
IF _PASTRNG=1 AND _PAINDEX=1 THEN _PAREC=1;
ELSE IF _PASTRNG=2 AND _PAINDEX=1 THEN _PAREC=2;
ELSE IF _PASTRNG=1 AND _PAINDEX=2 THEN _PAREC=3;
ELSE IF _PASTRNG=2 AND _PAINDEX=2 THEN _PAREC=4;
ELSE _PAREC=9;
```

### Section 10: Exercise (Physical Activity)

**\_PASTAER** *Calculated variable for aerobic and strengthening (2-level).* \_PASTAER is derived from \_PAREC.

- |   |  |   |
|---|--|---|
| 1 | Met Both Guidelines                    | Respondents that reported doing enough physical activity to meet the aerobic and strengthening recommendations (_PAREC=1)   |
| 2 | Did Not Meet Both Guidelines           | Respondents that reported doing physical activity but not enough to meet both the aerobic and strengthening recommendations (_PAREC IN (2,3,4))   |
| 9 | Don't know/ Not Sure/ Refused/ Missing | Respondents who reported they didn't know whether they did physical activity or didn't know how many days or didn't know how much time they did the activity, those who refused to answer, and those with missing responses |

**SAS Code:**  
 IF \_PAREC=1 THEN \_PASTAER=1;  
 ELSE IF \_PAREC IN ( 2, 3, 4) THEN \_PASTAER=2;  
 ELSE \_PASTAER=9;

### Section 11: Disability

There are no calculated Variables for Section 11.

### Section 12: Arthritis Burden

There are no calculated Variables for Section 12.

### Section 13: 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 that report 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 that report 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 that report 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 13: Seatbelt Use

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

- |   |  |  |
|---|--|--|
| 1 | Always Wear Seat Belt                    | Respondents that report 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 that report 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 that 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 14: Immunization

**\_FLSHOT5** *Calculated variable for adults aged 65+ who have had a flu shot within the past year.* **\_FLSHOT5** is derived from FLUSHOT5.

- |   |  |   |
|---|--|---|
| 1 | Yes                                      | Respondents aged 65 or older that reported having a flu shot within the past 12 months. (AGE >= 65 and FLUSHOT5=1)  |
| 2 | No                                       | Respondents aged 65 or older that reported not having had a flu shot within the past 12 months. (AGE >= 65 and FLUSHOT5=2)  |
| 9 | Don't know/ Not Sure Or Refused/ Missing | Respondents who did not know their age, those that refused to report their age, those that didn't know if they had a flu shot in the past 12 months, or those that refused to answer if they had a flu shot in the past 12 months, or those with missing responses. (AGE >= 65 and FLUSHOT4=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 FLUSHOT5=1 THEN _FLSHOT5=1;
  ELSE IF FLUSHOT5=2 THEN _FLSHOT5=2;
  ELSE IF FLUSHOT5 IN (.,7,9) THEN _FLSHOT5=9;
END;
ELSE IF AGE IN (.,7,9) THEN _FLSHOT5=9;
ELSE _FLSHOT5=.;
```

### Section 14: 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 that reported having a pneumonia shot. (AGE >= 65 and FLUSHOT3=1)   |
| 2 | No                                       | Respondents aged 65 or older that 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 that refused to report their age, those that did not know if they ever had a pneumonia shot, those that 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 15: Alcohol Consumption

**DRNKANY5** *Calculated variable for adults that report having had at least one drink of alcohol in the past 30 days.. DRNKANY5 is derived from AKCDAY5*

- |   |                      |  |
|---|----------------------|--|
| 1 | Yes                  | Respondents that reported drinking at least one alcoholic beverage in the past 30 days. (1 <= ALCDAY <= 231)                                       |
| 2 | No                   | Respondents that reported drinking no alcoholic beverages in the past 30 days. (ALCDAY5=888)   |
| 7 | Don't know/ Not Sure | Respondents that reported not knowing if they drank at least one alcoholic beverage in the past 30 days. (ALCDAY5=777)                             |
| 9 | Refused/ Missing     | Respondents that 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 15: 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 that reported they did not know how many days they had at least one drink of alcohol, those that 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 15: 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 that reported they did not drink in the past 30 days, or those that report 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 that 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 that 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 15: Alcohol Consumption

**\_DRNKDY4** *Calculated variable for calculated total number of alcoholic beverages consumed per day.*  
 \_DRNKDY4 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).

0	Did not drink	Respondents who did not drink in the past month. (DROCDY3_=0)
1 - 9899	Number of drinks per day	Respondents reported number of alcoholic drinks in the past month. (0 < DROCDY3_ < 990)
9900	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 _DRNKDY4=0;
ELSE IF DROCDY3_ = 9 THEN _DRNKDY4=99;
ELSE IF AVEDRNK2 IN (.,77,99) THEN _DRNKDY4=99;
ELSE _DRNKDY4=AVEDRNK2 * DROCDY3_;
* _DRNKDY4=ROUND((_DRNKDY4*100),1);
*This is done after all of the alcohol calculations but the code is
included here;
```

### Section 15: Alcohol Consumption

**\_DRNKMO4** *Calculated variable for calculated total number of alcoholic beverages consumed per month.*  
 \_DRNKMO4 is derived by multiplying \_DRNKDY4 by 30.

0	Did not drink in the past month	Respondents who did not consume any drinks of alcohol in the past month. (_DRNKDY4=0)
1 - 9998	Number of Drinks	Respondents reported number of alcoholic drinks pre day. (0 < _DRNKDY4 < 9900)
9999	Don't know/ Refused/ Missing	Respondents that reported they did not know if they consumed any drinks of alcohol in the past month, or those that refused to answer if they consumed any drinks of alcohol in the past month. (_DRNKDY4=9900)

**SAS Code:**

```
IF _DRNKDY4 NOT IN (.,99) THEN _DRNKMO4=_DRNKDY4*30;
ELSE _DRNKMO4=9999;
* _DRNKMO4=ROUND(_DRNKMO4,1);
*This is done after all of the alcohol calculations but the code is
included here;
```



**Section 15: Alcohol Consumption**

**\_RFDRHV4** *Calculated variable for heavy drinkers (adult men having more than two drinks per day and adult women having more than one drink per day).* **\_RFDRHV4** is derived from **\_DRNKDY4**, **ALCDAY5**, and **SEX**.

1	No	Male respondents that reported having 2 drinks per day or less, or female respondents that reported having 1 drinks per day or less. (Sex=1 and <b>_DRNKDY4</b> <= 200 or Sex=2 and <b>_DRNKDY4</b> <= 100 or <b>ALCDAY5</b> =888)
2	Yes	Male respondents that reported having more than 2 drinks per day, or female respondents that reported having more than 1 drink per day. (Sex=1 and <b>_DRNKDY4</b> > 200 or Sex=2 and <b>_DRNKDY4</b> > 100)
9	Don't know/ Refused/ Missing	Respondents with don't know, refused or missing responses for <b>ALCDAY5</b> or <b>_DRNKDY4</b> . ( <b>ALCDAY5</b> =777, 999, or missing, or <b>_DRNKDY4</b> =99, or missing)
	<b>SAS Code:</b>	<pre> IF SEX=1 AND _DRNKDY4 NOTIN (99,.) THEN DO;   IF _DRNKDY4 GT 2 THEN _RFDRHV4=2;   ELSE IF _DRNKDY4 LE 2 THEN _RFDRHV4=1;   END; ELSE IF SEX=2 AND _DRNKDY4 NOTIN (99,.) THEN DO;   IF _DRNKDY4 GT 1 THEN _RFDRHV4=2;   ELSE IF _DRNKDY4 LE 1 THEN _RFDRHV4=1;   END; ELSE IF ALCDAY5 EQ 888 THEN _RFDRHV4=1; ELSE _RFDRHV4=9; </pre>

**Section 15: Alcohol Consumption**

**\_RFDRMN4** *Calculated variable for adult men that are heavy drinkers (having more than two drinks per day).* **\_RFDRMN4** is derived from **\_DRNKDY4** and **SEX** and **ALCDAY5**.

1	No	Male respondents that reported having 2 drinks per day or less. (SEX=1 and <b>_DRNKDY4</b> <= 200 or <b>ALCDAY5</b> =888)
2	Yes	Male respondents that reported having more than 2 drinks per day. (SEX=1 and <b>_DRNKDY4</b> > 200)
9	Don't know/ Refused/ Missing	Male respondents with don't know, refused or missing responses for <b>ALCDAY5</b> or <b>_DRNKDY4</b> . (SEX=1 and <b>ALCDAY5</b> =777, 999, or missing, or <b>_DRNKDY4</b> =99, or missing)
.	Respondent is female	Female respondents. (SEX=2)
	<b>SAS Code:</b>	<pre> IF SEX=1 THEN DO;   IF _DRNKDY4 NOTIN (99,.) THEN DO;     IF _DRNKDY4 GT 2 THEN _RFDRMN4=2;     ELSE IF _DRNKDY4 LE 2 THEN _RFDRMN4=1;     END;   ELSE IF ALCDAY5 IN (888) THEN _RFDRMN4=1;   ELSE _RFDRMN4=9;   END; ELSE IF SEX=2 THEN _RFDRMN4=.; </pre>

### Section 15: Alcohol Consumption

**\_RFDRWM4** *Calculated variable for adult women that are heavy drinkers (having more than one drink per day).* \_RFDRWM4 is derived from \_DRNKDY4 and SEX and ALCDAY5.

- |   |                                 |  |
|---|---------------------------------|--|
| 1 | No                              | Female respondents that reported having 1 drink per day or less. (SEX=2 and _DRNKDY4 <= 200 or ALCDAY5=888)  |
| 2 | Yes                             | Female respondents that reported having more than 1 drink per day. (SEX=2 and _DRNKDY4 > 200)  |
| 9 | Don't know/<br>Refused/ Missing | Female respondents with don't know, refused or missing responses for ALCDAY5 or _DRNKDY4. (SEX=2 and ALCDAY5=777, 999, or missing, or _DRNKDY4=99, or missing) |
| . | Respondent is male              | Male respondents. (SEX=1)  |

**SAS Code:**

```
IF SEX=2 THEN DO;
  IF _DRNKDY4 NOTIN (99,.) THEN DO;
    IF _DRNKDY4 GT 1 THEN _RFDRWM4=2;
    ELSE IF _DRNKDY4 LE 1 THEN _RFDRWM4=1;
  END;
  ELSE IF ALCDAY5 IN (888) THEN _RFDRWM4=1;
  ELSE _RFDRWM4=9;
END;
Else IF SEX=1 THEN _RFDRWM4=.;
** ROUND OFF _DRNKMO4 TO NO DECIMAL PLACES ** MULTIPLY _DRNKDY4 BY
100 AND THEN ROUND OFF TO NO DECIMAL PLACES AND THEN REMOVE THE DECIMAL
PLACES **;
DROCDY3_=round((DROCDY3_*100),1);
_DRNKMO4=ROUND(_DRNKMO4,1);
_DRNKDY4=ROUND((_DRNKDY4*100),1);
```

### Section 16: HIV/AIDS

**\_AIDTST3** *Calculated variable for adults that have ever been tested for hiv.* \_AIDTST3 is derived from HIVTST6.

- |   |                                   |   |
|---|-----------------------------------|---|
| 1 | Yes                               | Respondents that reported to having been tested for HIV. (HIVTST6=1)  |
| 2 | No                                | Respondents that did not report having been tested for HIV. (HIVTST6=2)   |
| 9 | Don't know/ Not<br>Sure/ Refused  | Respondents that reported they did not know if they had been tested for HIV, or those that refused to answer if they had been tested for HIV. (HIVTST6=7,9) |
| . | Missing or Age<br>greater than 64 | 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=.;
```

### Section 17: Adult Influenza Like Illness

There are no calculated Variables for Section 17.