## Calculated Variables

in the

# 2017 Behavioral Risk Factor Surveillance System 

Data File
(Version \#4 - Revised: July 11, 2018)


## INTRODUCTION:

This document provides information on calculated variables for the 2017 Behavioral Risk Factor Surveillance System survey. These variables are calculated from responses to questions in the survey. There are three types of calculated variables:

1. Variables used to stratify and weight the data (not included in this document).
2. Intermediate variables, which are derived from a question response and are used to calculate some other variable or risk factor. Example: WTKG2 is derived from the WEIGHT2 variable in the survey. WTKG2 is then used to calculate the body mass index variable (_BMI4). Most—but not all—of the intermediate variables end with an underscore such as FTJUDAY_.
3. Variables used to categorize or classify respondents. Most of these begin with an underscore such as _BMI4. Exceptions are: _DENSTR2, _GEOSTR, and _STATE, which are determined before the interview. Some of the calculated variables group continuous variables-such as weight, age, or body mass index - into categories. Other calculated variables regroup non-continuous variables to simplify analyses. The common focus of these variables is on health behaviors that are associated with a risk of illness or injury.

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

## NEW CALCULATED VARIABLES FOR 2017

_CHOLCH1 was added in 2017.
FRUITE1 was added in 2017.
_FRT16A was added in 2017.
_FRTLT1A was added in 2017.
_FRTRES1 was added in 2017.
_FRUTSU1 was added in 2017.
_MISFRT1 was added in 2017.
_MISVEG1 was added in 2017.
_RFCHOL1 was added in 2017.
_URBNRRL was added in 2017.
_VEG23A was added in 2017.
_VEGESU1 was added in 2017.
_VEGLT1A was added in 2017.
_VEGRES1 was added in 2017.
FRNCHDA_ was added in 2017.
FRUTDA2_ was added in 2017.
FTJUDA2_ was added in 2017.
GRENDA1_ was added in 2017.
POTADA1_ was added in 2017.
VEGEDA2_ was added in 2017.

Section 1: Health Status
_RFHLTH Calculated variable for adults with good or better health. _RFHLTH is derived from GENHLTH.

| 1 | Good or Better Health | Respondents who reported having excellent, very good, or good health. (GENHLTH =1, 2, 3) |
| :---: | :---: | :---: |
| 2 | Fair or Poor Health | Respondents who reported having fair or poor health. (GENHLTH =4, 5) |
| 9 | Don't know/Not Sure or <br> Refused/Missing | Respondents who reported they didn't know, refused to answer, or had missing responses for <br> the general health status question. (GENHLTH =7, 9, missing) |
| SAS Code: | IF 4 LE GENHLTH LE 5 THEN RFHLTH=2; ; <br> ELSE IF 1 LE GENHLTH LE 3 THEN_RFHLTH=1; <br> ELSE_RFHLTH=9; |  |

Section 2: Healthy Days - Health-Related Quality of Life

| PHYS14D Calculated variable for 3 level not good physical health status: 0 days, 1-13 days, 14-30 days. _PHYS14D is derived from PHYSHLTH. |  |  |
| :---: | :---: | :---: |
| 1 | Zero days when physical health not good | Respondents who reported no days when their physical health was not good (PHYSHLTH=88) |
| 2 | 1-13 days when physical health not good | Respondents who reported 1-13 days when their physical health was not good (1 </= PHYSHLTH </= 13) |
| 3 | 14+ days when physical health not good | Respondents who reported 14 or more days when their physical health was not good (14</= PHYSHLTH </=30) |
| 9 | Don't know/Refused/ Missing | Respondents who reported they didn't know, refused, or had missing values for PHYSHLTH (PHYSHLTH=77,99, or missing) |
|  | SAS Code: | IF PHYSHLTH IN (77,99,.) THEN PHYS14D=9; ELSE IF PHYSHLTH=88 THEN PHYS14D=1; <br> ELSE IF 1 LE PHYSHLTH LE $\overline{1} 3$ THEN _PHYS14D=2; ELSE _PHYS14D=3; |

Section 2: Healthy Days - Health-Related Quality of Life

| MENT14D Calculated variable for 3 level not good mental health status: 0 days, 1-13 days, 14-30 days. _MENT14D is derived from MENTHLTH. |  |  |
| :---: | :---: | :---: |
| 1 | Zero days when mental health not good | Respondents who reported no days when their mental health was not good (MENTHLTH=88) |
| 2 | 1-13 days when mental health not good | Respondents who reported 1-13 days when their mental health was not good ( 1 </= MENTHLTH </= 13) |
| 3 | 14+ days when mental health not good | Respondents who reported 14 or more days when their mental health was not good (14 </= MENTHLTH </=30) |
| 9 | Don't know/Refused/ Missing | Respondents who reported they didn't know, refused, or had missing values for MENTHLTH (MENTHLTH=77,99, or missing) |
|  | SAS Code: | IF MENTHLTH IN (77,99,.) THEN MENT14D=9; ELSE IF MENTHLTH=88 THEN MENT14D=1; <br> ELSE IF 1 LE MENTHLTH LE 13 THEN _MENT14D=2; ELSE _MENT14D=3; |

Section 3: Health Care Access

| HCVU651 Calculated variable for respondents aged 18-64 who have any form of health care coverage. _HCVU651 is derived from AGE and HLTHPLN1. |  |  |
| :---: | :---: | :---: |
| 1 | Have health care coverage | Respondents who reported having health care coverage ( $18</=$ AGE </= 64 and HLTHPLN1 $=1$ ) |
| 2 | Do not have health care coverage | Respondents who reported not having health care coverage ( $18</=$ AGE </= 64 and HLTHPLN1 $=2$ ) |
| 9 | Don't know/Not Sure, Refused or Missing | Respondents who reported they didn't know, were not sure, refused to report, or had missing responses for having health care coverage ( $18</=$ AGE </= 64 and HLTHPLN $1=7,9$, 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. |  |


| Section 5: Cholesterol Awareness |  |  |
| :---: | :---: | :---: |
| _CHOLCH1 Calculated variable for cholesterol check within past five years. <br> _CHOLCH1 is derived from CHOLCHK1. |  |  |
| 1 | Had cholesterol checked in past 5 years | Respondents who reported having had their cholesterol checked within the past five years (CHOLCH1=2, 3, or 4) |
| 2 | Did not have cholesterol checked in past 5 years | Respondents who reported not having had their cholesterol checked within the past five years <br> (CHOLCH1=5) |
| 3 | Have never had cholesterol checked | Respondents who reported never having had their cholesterol checked (CHOLCH1=1) |
| 9 | Don't know/Not Sure or Refused/Missing | Respondents who 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 (CHOLCH1 $=7,9$, or missing) |
|  | SAS Code: | ```IF CHOLCHK1=1 THEN _CHOLCH1=3; ELSE IF CHOLCHK1 in (2, 3, 4) THEN _CHOLCH1=1; ELSE IF CHOLCHK1 = 5 THEN _CHOLCH1=\overline{2}; ELSE _CHOLCH1=9;``` |


| Section 5: Cholesterol Awareness |  |  |
| :---: | :---: | :---: |
| _RFCHOL1 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. RFCHOL1 is derived from CHOLCHK1 and TOLDHI2. |  |  |
| 1 | No | Respondents who reported having had their blood cholesterol checked but had not been told it was high (CHOLCHK1 $=2,3,4$, or 5 and TOLDHI2=2) |
| 2 | Yes | Respondents who reported having had their blood cholesterol checked and had been told that they have high blood cholesterol (CHOLCHK1=2,3,4, or 5 and TOLDHI2=1) |
| 9 | Don't know/Not Sure or Refused/Missing | Respondents who reported they didn't know if they had their blood cholesterol checked, those who 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 (CHOLCHK1 $=2,3,4$, or 5 and TOLDHI2 $=7,9$, or missing) |
|  | Missing | Respondents who reported they have not had their blood cholesterol checked (CHOLCHK1 $=1,7,9$, or missing) |
|  | SAS Code: | IF CHOLCHK1 in ( $2,3,4,5$ ) AND TOLDHI2=1 THEN RFCHOL1=2; ELSE IF CHOLCHK1 in $(2,3,4,5)$ AND TOLDHI2=2 THEN _RFCHOL1=1; |

Section 6: Chronic Health Conditions
_MICHD Calculated variable for respondents who have ever reported having coronary heart disease (CHD) or myocardial infarction (MI)._MICHD is derived from CVDINFR4, and CVDCRHD4.

| 1 | Reported having MI or <br> CHD | Respondents who reported having had MI or CHD (CVDINFR4=1 OR CVDCRHD4=1) |
| :---: | :---: | :---: |
| 2 | Did not report having MI <br> or CHD | Respondents who reported not having had MI and CHD (CVDINFR4=2 AND CVDCRHD4=2) |
| . | Not asked or Missing | Respondents who reported they didn't know, refused, or had a missing value for the MI or CHD <br> questions (CVDINFR4=7, 9 OR MISSING OR CVDCRHD4=7, 9, OR MISSING) |
|  | SAS Code: | IF CVDINFR4=1 OR CVDCRHD4=1 THEN MICHD=1; |
|  | ELSE IF CVDINFR4=2 AND CVDCRHD4=2 THEN _MICHD=2; |  |

Section 6: Chronic Health Conditions

| _LTASTH1 Calculated variable for adults who have ever been told they have asthma. _LTASTH1 is derived from ASTHMA3. |  |  |
| :---: | :---: | :---: |
| 1 | No | Respondents who have not been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=2) |
| 2 | Yes | Respondents who have been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=1) |
| 9 | Don't know/ Not Sure Or Refused/ Missing | Respondents who reported they did not know if they had been told by a doctor, nurse or health professional that they had asthma, those who refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, or those with missing responses. (ASTHMA3=7, 9, missing) |
|  | SAS Code: | ```IF ASTHMA3=1 THEN LTASTH1=2; ELSE IF ASTHMA3=2 THEN _LTASTH1=1; ELSE _LTASTH1=9;``` |

Section 6: Chronic Health Conditions

| _CASTHM1 Calculated variable for adults who have been told they currently have asthma. CASTHM1 is derived from ASTHMA3 and ASTHNOW. |  |  |
| :---: | :---: | :---: |
| 1 | No | Respondents who have not been told by a doctor, nurse or health professional that they had asthma or do not still have asthma. (ASTHMA3=2 or ASTHMA3=1 and ASTHNOW=2) |
| 2 | Yes | Respondents who have been told by a doctor, nurse or health professional that they had asthma and that they still have asthma. (ASTHMA3=1 and ASTHNOW=1) |
| 9 | Don't know/ Not Sure Or Refused/ Missing | Respondents who reported they did not know if they had been told by a doctor, nurse or health professional that they had asthma, those who refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, those who did not know if they still had asthma, those who refused to answer if they still had asthma, or those with missing responses. (ASTHMA3 $=7,9$, missing; or ASTHNOW $=7,9$, missing) |
|  | SAS Code: | ```IF ASTHMA3=2 THEN CASTHM1=1; ELSE IF ASTHMA3=1 AND ASTHNOW=1 THEN CASTHM1=2; ELSE IF ASTHMA3=1 AND ASTHNOW=2 THEN _CASTHM1=1; ELSE _CASTHM1=9;``` |

Section 6: Chronic Health Conditions

| _ASTHMS1 Calculated variable for computed asthma status. _ASTHMS1 is derived from ASTHMA3 and ASTHNOW. |  |  |
| :---: | :---: | :---: |
| 1 | Current | Respondents who have been told by a doctor, nurse or health professional that they had asthma and that they still have asthma. (ASTHMA3=1and ASTHNOW=1) |
| 2 | Former | Respondents who have been told by a doctor, nurse or health professional that they had asthma but do not still have asthma. (ASTHMA3=1 and ASTHNOW=2) |
| 3 | Never | Respondents who have not been told by a doctor, nurse or health professional that they had asthma. (ASTHMA3=2) |
| 9 | Don't know/ Not Sure Or Refused/ Missing | Respondents who reported they didn't know if they had been told by a doctor, nurse or health professional that they had asthma, those who refused to answer if they had been told by a doctor, nurse or health professional that they had asthma, those who didn't know if they still had asthma, those that refused to answer if they still had asthma, or those with missing responses. (ASTHMA3 $=7,9$, missing; or ASTHNOW $=7,9$, missing) |
|  | SAS Code: | ```IF ASTHMA3=1 AND ASTHNOW=1 THEN ASTHMS1=1; ELSE IF ASTHMA3=1 AND ASTHNOW=2 THEN _ASTHMS1=2; ELSE IF ASTHMA3=2 THEN _ASTHMS1=3; ELSE _ASTHMS1=9;``` |

Section 6: Chronic Health Conditions
_DRDXAR1 Calculated variable for respondents who have had a doctor diagnose them with some form of arthritis. _DRDXAR1 is derived from HAVARTH3.

| 1 | Diagnosed with arthritis | Respondents who have been told by a doctor they had arthritis (HAVARTH3=1) |
| :---: | :---: | :---: |
| 2 | Not diagnosed with arthritis | Respondents who have not been told by a doctor they had arthritis (HAVARTH3=2) |
|  | Don't know/Not Sure/ Refused/Missing | Respondents who reported they didn't know if they had been told by a doctor they had arthritis, those who refused to answer if they had been told by a doctor they had arthritis, and those with missing responses (HAVARTH3 $=7,9$, or missing) |
|  | SAS Code: | IF HAVARTH3 $=1$ THEN DRDXAR1=1; <br> ELSE IF HAVARTH3 $=2$ THEN $\quad$ DRDXAR1=2; <br> ELSE IF HAVARTH3 IN (7,9,.) THEN _DRDXAR1=.; |


| Section 7: Arthritis Burden |  |  |
| :---: | :---: | :---: |
| _LMTACT1 Calculated variable for limited usual activities. _LMTACT1 is derived from HAVARTH3 and LMTJOIN3. |  |  |
| 1 | Told have arthritis and have limited usual activities | Respondents who have been told they have arthritis and have limited usual activities HAVARTH3=1 and LMTJOIN3=1 |
| 2 | Told have arthritis and no limited usual activities | Respondents who have been told they have arthritis and have no limited usual activities HAVARTH3=1 and LMTJOIN3=2 |
| 3 | Not told they have arthritis | Respondents who have not been told they have arthritis HAVARTH3=2 |
| 9 | Don't know, refused or missing usual activities limited | Respondents who have been told they have arthritis and reported they didn't know, refused, or had a missing value for limited usual activities HAVARTH3 $=1$ and LMTJOIN3 $=7,9$ or missing |
| . | Don't know, refused or missing arthritis or not asked | Respondents who refused, didn't know, or were missing a response to being told they had arthritis HAVARTH3=7, 9 or missing |
|  | SAS Code: | ```IF HAVARTH3=1 THEN DO; IF LMTJOIN3=1 THEN _LMTACT1=1; ELSE IF LMTJOIN3=2 THEN _LMTACT1=2; ELSE _LMTACT1=9; END; ELSE IF HAVARTH3=2 THEN _LMTACT1=3; ELSE _LMTACT1=.;``` |

Section 7: Arthritis Burden

| _LMTWRK1 Calculated variable for limited work activities. _LMTWRK1 is derived from HAVARTH3 and ARTHDIS2. |  |  |
| :---: | :---: | :---: |
| 1 | Told have arthritis and have limited work | Respondents who have been told they have arthritis and have limited work HAVARTH3=1 and ARTHDIS2=1 |
| 2 | Told have arthritis and no limited work | Respondents who have been told they have arthritis and have no limited work HAVARTH3=1 and ARTHDIS2=2 |
| 3 | Not told they have arthritis | Respondents who have not been told they have arthritis HAVARTH3=2 |
| 9 | Don't know, refused or missing work limited | Respondents who have been told they have arthritis and reported they didn't know, refused, or had a missing value for limited work HAVARTH3 $=1$ and ARTHDIS2 $=7,9$ or missing |
| . | Don't know, refused or missing arthritis or not asked | Respondents who refused, didn't know, or were missing a response to being told they had arthritis HAVARTH3=7, 9 or missing |
|  | SAS Code: | ```IF HAVARTH3=1 THEN DO; IF ARTHDIS2=1 THEN _LMTWRK1=1; ELSE IF ARTHDIS2=2 THEN _LMTWRK1=2; ELSE _LMTWRK1=9; END; ELSE IF HAVARTH3=2 THEN _LMTWRK1=3; ELSE _LMTWRK1=.;``` |

Section 7: Arthritis Burden

| _LMTSCL1 Calculated variable for limited social activities. _LMTSCL1 is derived from HAVARTH3 and ARTHSOCL. |  |  |
| :---: | :---: | :---: |
| 1 | Told have arthritis and social activities limited a lot | Respondents who have been told they have arthritis and have a lot of limited social activities HAVARTH3=1 and ARTHSOCL=1 |
| 2 | Told have arthritis and social activities limited a little | Respondents who have been told they have arthritis and have a little of limited social activities HAVARTH3=1 and ARTHSOCL=2 |
| 3 | Told have arthritis and social activities not limited | Respondents who have been told they have arthritis and have no limited social activities HAVARTH3=1 and ARTHSOCL=3 |
| 4 | Not told they have arthritis | Respondents who have not been told they have arthritis HAVARTH3=2 |
| 9 | Don't know, refused, or missing social activities limited | Respondents who have been told they have arthritis and reported they didn't know, refused, or had a missing value for limited social activities HAVARTH3=1 and ARTHSOCL=7, 9 or missing |
|  | Don't know, refused or missing arthritis or not asked | Respondents who refused, didn't know or were missing a response to being told they had arthritis HAVARTH3=7, 9 or missing |
|  | SAS Code: | ```IF HAVARTH3=1 THEN DO; IF ARTHSOCL=1 THEN LMTSCL1=1; ELSE IF ARTHSOCL=2 THEN LMTSCL1=2; ELSE IF ARTHSOCL=3 THEN _LMTSCL1=3; ELSE _LMTSCL1=9; END; ELSE IF HAVARTH3=2 THEN _LMTSCL1=4; ELSE _LMTSCL1=.;``` |

Section 8: Demographics

|  | MRACORG1 Calculated variable for mrace1 with $77,88,99$ s removed. <br> MRACORG1 is derived from MRACE1 in the original order in which the data were received from the state/territory. <br> If MRACE1 is greater than 99 , then any $77,80,88$, or 99 is removed. <br> If MRACE1 is less than or equal to 99 , then MRACORG1 is equal to MRACE1. |  |
| :---: | :---: | :---: |
| $\begin{gathered} 10- \\ 6.05 \mathrm{E} 9 \end{gathered}$ | Race code(s) | Respondents reported race or races in original order (MRACE1 $=10,20,30,40,50,60$, or MRACE1 > 99) |
| 77 | Don't know/ Not sure | Respondents who reported they didn't know or weren't sure of their race. (MRACE1=77) |
| 99 | Refused | Respondents who refused to give their race. (MRACE1=99) |
|  | SAS Code: | IF (LEFT (COMPRESS (LENGTH (MRACE1)))) > 2 THEN DO; <br> MRACORG77=PUT (LEFT (COMPRESS (TRANWRD (MRACE1,"77","")) ), 28.); <br> MRACORG88=PUT (LEFT (COMPRESS (TRANWRD (MRACORG77,"88",""))), 28.); <br> MRACORG99=PUT (LEFT (COMPRESS (TRANWRD (MRACORG88,"99","")) ), 28.); <br> MRACORG1=PUT (LEFT (COMPRESS (TRANWRD (MRACORG99, "80","")) ), 28.) ; <br> END; <br> ELSE DO; <br> MRACORG1=MRACE1; <br> END; |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| MRACASC1 Calculated variable for MRACORG1 with 77,88,99s removed, in ascending order. MRACASC1 is derived from MRACORG1. <br> The values that make up MRACORG1 are sorted from smallest to largest. |  |  |
| $\begin{gathered} 10- \\ 1.02 \mathrm{E} 9 \end{gathered}$ | Race code(s) | Respondents reported race or races in ascending order <br> (MRACE1 $=10,20,30,40,50,60$, or MRACORG1 > 99) |
| 77 | Don't know/ Not sure | Respondents who reported they didn't know or weren't sure of their race. (MRACORG1=77) |
| 99 | Refused | Respondents who refused to give their race. (MRACORG1=99) |
|  | SAS Code | ```IF (LEFT(COMPRESS(LENGTH(MRACORG1)))) > 2 THEN DO; array pairs[14]; length MRAC_SORTED $28; counter = .; do pos = 1 to length(MRACORG1) by 2; counter + 1; pairs[counter] = input(substr(MRACORG1, pos, 2), 2.); end; do i = 1 to counter; MRAC_SORTED = cats(MRAC_SORTED, smallest(i, of pairs[*])); end; drop pairs: i counter pos; MRAC_VALID=MRAC_SORTED; %macro swapthis; %do M = 1 %to 14; %LET R=%eval((&M.*2)-1); %do s = 41 %to 47; if substr(MRAC_VALID,&R.,2)=&s. then do; MRAC_VALID = TRANWRD (MRAC_VALID,"&S.","40"); end; %end; %do t = 51 %to 54; if substr(MRAC VALID,&R.,2)=&t. then do; MRAC_VALID = TRANWRD(MRAC_VALID,"&T.","50"); end; %end; %end; %mend; %swapthis; DO Z=1 TO 4; MRAC 5050= PUT (LEFT (COMPRESS (TRANWRD (MRAC_VALID,"5050","50XX"))),28.); MRAC_ONE50= PUT (LEFT (COMPRESS(TRANWRD (MRAC_5050,"XX",""))),28.); END; MRAC_ONE40=MRAC_ONE50; DO Y=1 TO 7; MRAC 4040= PUT (LEFT (COMPRESS (TRANWRD (MRAC ONE40,"4040","40XX"))),28.); MRAC_ONE40= PUT(LEFT(COMPRESS(TRANWRD (MRAC_4040,"XX",""))),28.); END; MRACASC1=INPUT (MRAC_ONE 40,28.0); END; ELSE DO; MRACASC1=INPUT (MRACORG1,28.0); END;``` |

Section 8: Demographics

| _PRACE1 Calculated variable for preferred race category. PRACE is derived from MRACASC1 and ORACE3. <br> If MRACEASC has only one response, then _PRACE1=MRACASC1. If MRACASC1 has more than one response, then _PRACE1=ORACE3. |  |  |
| :---: | :---: | :---: |
| 1 | White | Respondents who reported their race as white. (MRACASC1 $=10$ or MRACASC1>99 and ORACE3=10) |
| 2 | Black or African American | Respondents who reported their race as black. (MRACASC1 $=22$ or MRACASC1>99 and ORACE3=20) |
| 3 | American Indian or Alaskan Native | Respondents who reported their race as American Indian or Alaska Native. (MRACASC1=30 or MRACASC1>99 and ORACE3=30) |
| 4 | Asian | Respondents who reported their race as Asian. (MRACASC1=40 or MRACASC1>99 and ORACE3=40) |
| 5 | Native Hawaiian or other Pacific Islander | Respondents who reported their race as Native Hawaiian or Pacific Islander. (MRACASC1=50 or MRACASC1>99 and ORACE3=50) |
| 6 | Other race | Respondents who report they are of some other race group not listed in the question responses. (MRACASC1=60 or MRACASC1>99 and ORACE3=60) |
| 7 | No preferred race | Respondents who reported they are of more than one race group but did not report a preference or the preferred race is missing (MRACASC1>99 and ORACE3=77 or 99) |
| 8 | Multiracial but preferred race not answered | Respondents who reported they are of more than one race group but did not answer the question about which race best represents them NOTE: This is a data collection error. (MRACASC1 >99 and ORACE3 $=80$ or MRACASC1 >99 and ORACE3= Missing) |
| 77 | Don't know/ Not sure | Respondents who reported they didn't know their race and did not answer the question about which race best represents them. (MRACASC1=77) |
| 99 | Refused | Respondents who refused to give their race and did not answer the question about which race best represents them. (MRACASC1=99) |
|  | SAS Code |  |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| _MRACE1 Calculated variable for calculated multiracial race categorization. <br> _MRACE1 is derived from MRACASC1. <br> If respondents reported more than one race, they are assigned to the multiracial category. <br> If MRACASC1 is less than 40 or equal to 60 , then _MRACE1=MRACASC1. <br> If MRACASC1 is $\mathbf{4 0 - 4 7}$, then _MRACE1=40. If MRACASC1 is $\mathbf{5 0 - 5 4}$, then _MRACE1=50. |  |  |
| 1 | White only | Respondents who reported they are white. (MRACASC1=10) |
| 2 | Black or African American only | Respondents who reported they are black. (MRACASC1=22) |
| 3 | American Indian or Alaskan Native only | Respondents who reported they are American Indian or Alaska Native. (MRACASC1=30) |
| 4 | Asian Only | Respondents who reported they are Asian. (MRACASC1 $=40,41,42,423,44,45,46,47$ ) |
| 5 | Native Hawaiian or other Pacific Islander only | Respondents who reported they are native Hawaiian or Pacific Islander. <br> (MRACASC1 $=50,51,52,53,54$ ) |
| 6 | Other race only | Respondents who reported they are of some other race group not listed in the question responses. (MRACASC1=60) |
| 7 | Multiracial | Respondents who reported they are of more than one race group (MRACASC1>99) |
| 77 | Don't know/ Not sure | Respondents who reported they did not know their race. (MRACASC1=77) |
| 99 | Refused | Respondents who refused to give their race information. (MRACASC1=99) |
|  | SAS Code: | ```IF MRACASC1 GT 99 THEN _MRACE1 = 7; ELSE IF MRACASC1 EQ 99 THEN _MRACE1 = 99; ELSE IF MRACASC1 EQ 77 THEN _MRACE1 = 77; ELSE IF MRACASC1 EQ 10 THEN MRACE1 = 1; ELSE IF MRACASC1 EQ 20 THEN MRACE1 = 2; ELSE IF MRACASC1 EQ 30 THEN M ELSE IF 40 LE MRACASC1 LE 4\overline{7}}\mathrm{ THEN _MRACE1 = 4; ELSE IF 50 LE MRACASC1 LE 54 THEN _MRACE1 = 5; ELSE IF MRACASC1=60 THEN _MRACE1=6;``` |



Section 8: Demographics

| _HISPANC Calculated variable for Hispanic, Latino(a), or of Spanish origin. _HISPANC is derived from HISPANC3 |  |  |
| :---: | :---: | :---: |
| 1 | Hispanic, Latino(a), or of Spanish origin | Respondents who reported being of Hispanic, Latino(a), or Spanish origin (HISPANC3=1,2,3,4 or HISPANC3 > 9) |
| 2 | Not of Hispanic, Latino(a), or Spanish origin | Respondents who reported they were not of Hispanic, Latino(a), or Spanish origin (HISPANC3=5) |
| 9 | Don't Know, Refused or Missing | Respondents who refused to report if they were of Hispanic, Latino(a), or Spanish origin (HISPANC3=7) |
| . | Not asked or Missing | Respondents who reported they did not know if they were of Hispanic, Latino(a), or Spanish origin (HISPANC3=9) |
|  | SAS Code | ```HISPNUM=INPUT(HISPANC3,4.0); IF HISPNUM in (5,58) THEN _HISPANC=2; ELSE IF HISPNUM in (7,9,.) THEN _HISPANC=9; ELSE _HISPANC=1;``` |




Section 8: Demographics

| RACEGR3 Calculated variable for five-level race ethnicity category. _RACEGR3 is derived from _RACE. |  |  |
| :---: | :---: | :---: |
| 1 | White only, Non-Hispanic | Respondents who reported they are white and not of Hispanic origin. (_RACE=1) |
| 2 | Black only, Non-Hispanic | Respondents who reported they are black and not of Hispanic origin. (_RACE=2) |
| 3 | Other race only, Non-Hispanic | Respondents who reported they are not white and not black and not of Hispanic origin. $\left(\_\mathrm{RACE}=3,4,5,6\right)$ |
| 4 | Multiracial, Non-Hispanic | Respondents who reported being multiracial but not of Hispanic origin. (_RACE=7) |
| 5 | Hispanic | Respondents who reported they are of Hispanic origin. (_RACE=8) |
| 9 | Don't know/Not sure/ Refused | Respondents who reported they did not know, or refused to give their race and are not of Hispanic origin or did not know, or refused to answer if they are of Hispanic origin. (_RACE=9) |
|  | SAS Code: | ```IF _RACE=1 THEN _RACEGR3=1; EL\overline{SE IF _RACE=2 THEN RACEGR3=2;} ELSE IF \overline{3 LE RACE LE - }6 THEN RACEGR3=3; ELSE IF _RACE=7 THEN _RACEGR3=4; ELSE IF _RACE=8 THEN _RACEGR3=5; ELSE IF _RACE=9 THEN _RACEGR3=9;``` |

Section 8: Demographics

| _RACE_G1 Calculated variable for race groups used for internet prevalence tables. _RACE_G is derived from _RACEGR3. |  |  |
| :---: | :---: | :---: |
| 1 | White - Non-Hispanic | Respondents who reported they are white and not of Hispanic origin. (_RACEGR3=1) |
| 2 | Black - Non-Hispanic | Respondents who reported they are black and not of Hispanic origin. (_RACEGR3=2) |
| 3 | Hispanic | Respondents who reported that they are of Hispanic origin. (_RACEGR3=5) |
| 4 | Other race only, Non-Hispanic | All other respondents with valid race responses except for those reporting multiracial or Hispanic origins. (_RACEGR3=3) |
| 5 | Multiracial, Non-Hispanic | All other respondents reporting multiracial but non-Hispanic origin. (_RACEGR3=4) |
|  | Don't know/Not sure/ Refused component question | Respondents with don't know, refused or missing values for _RACEGR2. (_RACEGR3=9, missing) |
|  | SAS Code | $\begin{aligned} & \text { IF RACEGR3 }=1 \text { THEN } \text { RACE_G1 }=1 ; \\ & \text { ELSE IF _RACEGR3 }=2 \text { THEN _RACE_G1 }=2 ; \\ & \text { ELSE IF _RACEGR3 }=3 \text { THEN _RACE_G1 }=4 ; \\ & \text { ELSE IF _RACEGR3 }=4 \text { THEN _RACE_G1 }=5 ; \\ & \text { ELSE IF _RACEGR3 }=5 \text { THEN_RACE_G1 }=3 ; \end{aligned}$ |

Calculated Variables in the 2017 Behavioral Risk Factor Surveillance System Data File (continued)

| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| AGEG5YR Calculated variable for fourteen-level age category. _AGEG5YR is derived from AGE. |  |  |
| 1 | Age 18 to 24 | Respondents with reported age between 18 and 24 years ( $18</=$ AGE </= 24) |
| 2 | Age 25 to 29 | Respondents with reported age between 25 and 29 years ( $25</=$ AGE </= 29) |
| 3 | Age 30 to 34 | Respondents with reported age between 30 and 34 years ( $30</=$ AGE </= 34) |
| 4 | Age 35 to 39 | Respondents with reported age between 35 and 39 years ( $35</=$ AGE </= 39) |
| 5 | Age 40 to 44 | Respondents with reported age between 40 and 44 years ( $40</=$ AGE </= 44) |
| 6 | Age 45 to 49 | Respondents with reported age between 45 and 49 years ( $45</=$ AGE </= 49) |
| 7 | Age 50 to 54 | Respondents with reported age between 50 and 54 years ( $50</=$ AGE </= 54) |
| 8 | Age 55 to 59 | Respondents with reported age between 55 and 59 years ( $55</=$ AGE </= 59) |
| 9 | Age 60 to 64 | Respondents with reported age between 60 and 64 years ( $60</=$ AGE </= 64) |
| 10 | Age 65 to 69 | Respondents with reported age between 65 and 69 years ( $65</=$ AGE </= 69) |
| 11 | Age 70 to 74 | Respondents with reported age between 70 and 74 years ( $70</=$ AGE </= 74) |
| 12 | Age 75 to 79 | Respondents with reported age between 75 and 79 years ( $75</=$ AGE </= 79) |
| 13 | Age 80 or older | Respondents with reported age between 80 and 99 years ( $80</=$ AGE </= 99) |
| 14 | Don't know/Refused/ Missing | Respondents who reported they didn't know, were not sure, refused to report or had missing responses for their age. (AGE=7, 9, missing) |
|  | SAS Code | IF 18 LE AGE LE 24 THEN _AGEG5YR = 1; ELSE IF 25 LE AGE LE 29 THĒN 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 ${ }^{\text {AGGEG5YR }=13 ; ~}$ ELSE AGEG5YR $=14$; |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| _AGE65YR Calculated variable for two-level age category. _AGE65YR is derived from AGE. |  |  |
| 1 | Age 18 to 64 | Respondents with reported ages 18-64. (18 </= AGE </=64) |
| 2 | Age 65 or older | Respondents with reported ages 65-99. ( $65>/=$ AGE $>/=99$ ) |
| 3 | Don’t know/Refused/ Missing | Respondents who reported they didn't know, were not sure, refused, or had a missing value for AGE. (AGE=7,9,or missing) |
|  | SAS Code | ```IF 18 LE AGE LE 64 THEN AGE65YR=1; ELSE IF 65 LE AGE LE 99-THEN _AGE65YR=2; ELSE AGE65YR = 3;``` |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| AGE80 | Calculated variable for imputed age value collapsed above 80. _AGE80 is derived from _IMPAGE. |  |
| 18-24 | Imputed Age 18 to 24 | Respondents with reported Imputed Age between 18 and 24 years (18</= Imputed Age </= 24) |
| 25-29 | Imputed Age 25 to 29 | Respondents with reported Imputed Age between 25 and 29 years (25</= Imputed Age </= 29) |
| 30-34 | Imputed Age 30 to 34 | Respondents with reported Imputed Age between 30 and 34 years (30</= Imputed Age </= 34) |
| 35-39 | Imputed Age 35 to 39 | Respondents with reported Imputed Age between 35 and 39 years (35</= Imputed Age </= 39) |
| 40-44 | Imputed Age 40 to 44 | Respondents with reported Imputed Age between 40 and 44 years (40</= Imputed Age </= 44) |
| 45-49 | Imputed Age 45 to 49 | Respondents with reported Imputed Age between 45 and 49 years (45</= Imputed Age </= 49) |
| 50-54 | Imputed Age 50 to 54 | Respondents with reported Imputed Age between 50 and 54 years (50 </= Imputed Age </= 54) |
| 55-59 | Imputed Age 55 to 59 | Respondents with reported Imputed Age between 55 and 59 years (55</= Imputed Age </= 59) |
| 60-64 | Imputed Age 60 to 64 | Respondents with reported Imputed Age between 60 and 64 years (60</= Imputed Age </= 64) |
| 65-69 | Imputed Age 65 to 69 | Respondents with reported Imputed Age between 65 and 69 years (65 </= Imputed Age </= 69) |
| 70-74 | Imputed Age 70 to 74 | Respondents with reported Imputed Age between 70 and 74 years (70 </= Imputed Age </= 74) |
| 75-79 | Imputed Age 75 to 79 | Respondents with reported Imputed Age between 75 and 79 years (75</= Imputed Age </= 79) |
| 80-99 | Imputed Age 80 or older | Respondents with reported Imputed Age between 80 and 99 years (80</= Imputed Age </= 99) |
|  | SAS Code: | IF 18 LE IMPAGE LE 80 THEN AGE80= IMPAGE; ELSE IF _-̄̄MPAGE GE 80 THEN _ $\bar{A} G E 80=8 \overline{0}$; |

Section 8: Demographics

| _AGE_G Calculated variable for six-level imputed age category. _AGE_G is derived from _IMPAGE (imputed age). |  |  |
| :---: | :---: | :---: |
| 1 | Age 18 to 24 | Respondents with imputed ages between 18-24 years of age. (18 </= _IMPAGE </= 24) |
| 2 | Age 25 to 34 | Respondents with imputed ages between 25-34 years of age. ( 25 </= _IMPAGE </= 34) |
| 3 | Age 35 to 44 | Respondents with imputed ages between 35-44 years of age. (35 </= _IMPAGE </= 44) |
| 4 | Age 45 to 54 | Respondents with imputed ages between 45-54 years of age. (45 </= _IMPAGE </= 54) |
| 5 | Age 55 to 64 | Respondents with imputed ages between 55-64 years of age. (55 </= _IMPAGE </= 64) |
| 6 | Age 65 or older | Respondents with imputed ages between 65-99 years of age. (_IMPAGE => 65) |
|  | SAS Code |  |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| HTIN4 Calculated variable for reported height in inches. HTIN4 is derived from HEIGHT3. HTIN4 is calculated by adding the foot portion of HEIGHT3 multiplied by 12, to the inch portion. |  |  |
| 36-95 | Height in inches | Respondents calculated height in inches. (HTIN4=(height in feet x 12) + height in inches) |
|  | Don’t know/Refused/ Not asked or Missing | Respondents who reported they didn't know, were not sure, refused or had missing responses for their height. |
|  | SAS Code: | ```IF 300<=HEIGHT3<=311 THEN HTIN4=((HEIGHT3-300) +36 ); ELSE IF 400<=HEIGHT3<=411 THEN HTIN4=((HEIGHT3-400)+48); ELSE IF 500<=HEIGHT3<=511 THEN HTIN4=((HEIGHT3-500)+60); ELSE IF 600<=HEIGHT3<=611 THEN HTIN4=((HEIGHT3-600)+72); ELSE IF 700<=HEIGHT3<=711 THEN HTIN4=((HEIGHT3-700)+84);``` |

Section 8: Demographics
HTM4 Calculated variable for reported height in meters. HTM4 is derived from the variable HTIN4 by multiplying HTIN4 by 2.54 cm per in and dividing by 100 cm per meter. HTM4 is derived from HEIGHT2 metric values by dividing by 100 .

| 91-244 | Height in meters [2 implied decimal places] | Respondents reported or calculated height in meters. (HTM4=HTIN4 x 0.0254 or HTM4 $=$ (HEIGHT3-9000) $\div 100$ ) |
| :---: | :---: | :---: |
|  | Don't know/Refused/ Not asked or Missing | Respondents who reported they didn't know, were not sure, refused or had missing responses for their height. |
|  | SAS Code: | IF 300 <= HEIGHT3 <= 711 THEN HTM4=HTIN4*0.0254; <br> ELSE IF 9091 <= HEIGHT3 < 9244 THEN HTM4=(HEIGHT3-9000)/100; |

Section 8: Demographics

| WTKG | Calculated variable for reported weight in kilograms. WTKG3 is derived from WEIGHT2 by multiplying WEIGHT2 by 0.4535924 kg per lb. |  |
| :---: | :---: | :---: |
| $\begin{aligned} & 2300- \\ & 29500 \end{aligned}$ | Weight in kilograms [2 implied decimal places] | Respondents reported or calculated weight in kilograms. |
|  | Don’t know/ Refused/ Not asked or Missing | Respondents who reported they didn't know, were not sure, or refused or had missing responses for their weight. |
|  | SAS Code: | ```** CONVERSION FACTOR = 0.4535924 kg/lb **; IF WEIGHT2 NOT IN (777,999,7777,9999,.) THEN DO; IF 0050 LE WEIGHT2 < 0650 THEN WTKG3=WEIGHT2*O.4535924; ELSE IF 9023 LE WEIGHT2 < 9295 THEN WTKG3=WEIGHT2-9000; END;``` |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| _BMI5 | Calculated variable for body mass index (BMI). _BMI5 is derived from WTKG3 and HTM4. It is calculated by dividing WTKG3 by HTM4². |  |
| 1-9999 | 1 or greater | Respondents calculated body mass index (BMI) \{units=kilograms per meter squared\}. (_BMI5 = WTKG3 / (HTM4xHTM4)) |
|  | Don’t know/Refused/ Missing | Respondents who had a missing value for their height in meters or weight in kilograms. <br> (WTKG3=missing or HTM4=missing or _BMI5<12.00 or _BMI5>=100 or PREGNANT=1) |
|  | SAS Code: | ```IF (WTKG3 NOTIN (.)) AND (HTM4 NOTIN (.)) THEN _BMI5=WTKG3/(HTM4 ** 2); ELSE _BMI5=.; IF BMI5 NE . THEN BMI5=ROUND(_BMI5,.01); IF _BMI5 > 99.99 THEN _BMI5=.; IF BMI5 < 12.00 THEN BMI5=.; IF PRREGNANT=1 THEN _BMI ``` |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| BMI5CAT Calculated variable for four-categories of body mass index (BMI). _BMI5CAT is derived from _BMI5. |  |  |
| 1 | Underweight | Respondents classified as underweight based on body mass index. (_BMI5 < 18.50) |
| 2 | Normal Weight | Respondents classified as normal weight based on body mass index. (18.50<=_BMI5 < 25.00) |
| 3 | Overweight | Respondents classified as overweight based on body mass index. (25.00<=_BMI5 < 30.00) |
| 4 | Obese | Respondents classified as obese based on body mass index. ( $30.00<=$ _BMI5 < 99.99) |
|  | Don’t know/ Refused/ Missing | Respondents with an unknown, refused, or missing value for body mass index. (_BMI5=.) |
|  | SAS Code: | ```IF (0.00 LE BMI5 < 18.50) THEN BMI5CAT=1; ELSE IF (18.50 LE BMI5 < 25.00) THEN BMI5CAT=2; ELSE IF (25.00 LE BMI5 < 30.00) THEN BMI5CAT=3; ELSE IF _BMI5 GE 30.00 THEN _BMI5CAT=4;``` |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| _RFBMI5 Calculated variable for adults who have a body mass index greater than 25.00 (overweight or obese). _RFBMI5 is derived from _BMI5. |  |  |
| 1 | No | Respondents not classified as overweight or obese based on body mass index. ( $12<=$ _BMI5 < 25.00) |
| 2 | Yes | Respondents classified as overweight or obese based on body mass index. ( $25.00<=$ _BMI5 < 99.99) |
| 9 | Don't know/Refused/ Missing | Respondents with an unknown, refused, or missing value for body mass index. (_BMI5=missing) |
|  | SAS Code: | ```IF (12.00 LE _BMI5 < 25.00) THEN _RFBMI5=1; ELSE IF (25.0}0<= _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 |  |  |
| :---: | :---: | :---: |
| EDUCAG Calculated variable for level of education completed. _EDUCAG is derived from EDUCA. |  |  |
| 1 | Did not graduate High School | Respondents who reported they did not graduate high school. (EDUCA=1,2,3) |
| 2 | Graduated High School | Respondents who reported they graduated high school. (EDUCA=4) |
| 3 | Attended College or Technical School | Respondents who reported they attended college or technical school. (EDUCA=5) |
| 4 | Graduated from College or Technical School | Respondents who reported they graduated from college or technical school. (EDUCA=6) |
| 9 | Don't know/ Not sure/ Missing | Respondents who reported they didn't know, were not sure, refused, or had a missing value for EDUCA. (EDUCA=9, missing) |
|  | SAS Code: | IF EDUCA IN $(1,2,3)$ THEN _EDUCAG $=1$; <br> ELSE IF EDUCA IN (4) THEN $\quad$ EDUCAG $=2$; <br> ELSE IF EDUCA IN (5) THEN _EDUCAG = 3; <br> ELSE IF EDUCA IN (6) THEN EDUCAG = 4; <br> ELSE IF EDUCA IN $(., 9)$ THEN $\quad$ EDUCAG $=9$; |


| Section 8: Demographics |  |  |
| :---: | :---: | :---: |
| INCOMG Calculated variable for income categories. _INCOMG is derived from INCOME2. |  |  |
| 1 | Less than \$15,000 | Respondents whose reported income is less than \$15,000. (INCOME2=1,2) |
| 2 | $\$ 15,000$ to less than $\$ 25,000$ | Respondents whose reported income is \$15,000 to less than \$25,000. (INCOME2=3,4) |
| 3 | $\$ 25,000$ to less than $\$ 35,000$ | Respondents whose reported income is $\$ 25,000$ to less than $\$ 35,000$. (INCOME2=5) |
| 4 | \$35,000 to less than $\$ 50,000$ | Respondents whose reported income is $\$ 35,000$ to less than $\$ 50,000$. (INCOME2=6) |
| 5 | \$50,000 or more | Respondents whose reported income is $\$ 50,000$ or more. (INCOME2 $=7,8$ ) |
| 9 | Don't know/Not sure/ Missing | Respondents who refused to answer, didn't know or had a missing value for INCOME2. (INCOME2=77,99, or missing) |
|  | SAS Code: | IF INCOME2 IN (1,2) THEN _INCOMG = 1; ELSE IF INCOME2 IN $(3,4)$ THEN _INCOMG $=2$; ELSE IF INCOME2 IN (5) THEN _INCOMG = 3; ELSE IF INCOME2 IN (6) THEN _INCOMG = 4; ELSE IF INCOME2 IN (7,8) THEN _INCOMG = 5; ELSE IF INCOME2 IN (77,99,.) THEN _INCOMG = 9; |


| Section 9: Tobacco Use |  |  |
| :---: | :---: | :---: |
| _SMOKER3 Calculated variable for four-level smoker status: everyday smoker, someday smoker, former smoker, non-smoker. _SMOKER3 is derived from SMOKE100 and SMOKDAY2. |  |  |
| 1 | Current smoker -- now smokes every day | Respondents who reported having smoked at least 100 cigarettes in their lifetime and now smoke every day. (SMOKE100=1 and SMOKDAY2=1) |
| 2 | Current smoker -- now smokes some days | Respondents who reported having smoked at least 100 cigarettes in their lifetime and now smoke some days. (SMOKE100=1 and SMOKDAY2=2) |
| 3 | Former smoker | Respondents who reported having smoked at least 100 cigarettes in their lifetime and currently do not smoke. (SMOKE100=1 and SMOKDAY2=3) |
| 4 | Never smoked | Respondents who reported they had not smoked at least 100 cigarettes in their lifetime. (SMOKE100=2) |
| 9 | Don't know/Refused/ Missing | Respondents who reported they didn't know if they had smoked 100 cigarettes in their lifetime, those who refused to answer if they had smoked 100 cigarettes in their lifetime, those who didn't know if they now smoked every day, some days or not at all, those who refused to answer if they now smoked every day, some days or not at all, or those with missing responses. (SMOKE100=7, 9, missing; or SMOKDAY2 $=7,9$, missing) |
|  | SAS Code: | ```IF SMOKE100=2 THEN _SMOKER3=4; ELSE IF SMOKE100=1 THEN DO; IF SMOKDAY2=1 THEN SMOKER3=1; ELSE IF SMOKDAY2=2 THEN SMOKER3=2; ELSE IF SMOKDAY2 = 3 THEN _SMOKER3=3; ELSE _SMOKER3=9; END; ELSE _SMOKER3=9;``` |

Section 9: Tobacco Use
_RFSMOK3 Calculated variable for adults who are current smokers. _RFSMOK3 is derived from _SMOKER3.

| 1 | No | Respondents who reported they had not smoked at least 100 cigarettes in their lifetime, those who reported having smoked 100 cigarettes in their lifetime but do not currently smoke. <br> (_SMOKER3=3, 4) |
| :---: | :---: | :---: |
| 2 | Yes | Respondents who reported having smoked at least 100 cigarettes in their lifetime and currently smoke. (_SMOKER3=1, 2) |
| 9 | Don’t know/Refused/ Missing | Respondents who reported they did not know if they had smoked 100 cigarettes in their lifetime, those who refused to answer if they had smoked 100 cigarettes in their lifetime, those who didn't know if they now smoked every day, some days or not at all, those who refused to answer if they now smoked every day, some days or not at all, or those with missing responses. (_SMOKER3=9) |
|  | SAS Code: | IF _SMOKER3 IN (1,2) THEN _RFSMOK3=2; <br> ELSE IF _SMOKER3 IN $(3,4)$ THEN _RFSMOK3=1; ELSE _RFSMOK3=9; |


| Section 10: E-Cigarettes |  |  |
| :---: | :---: | :---: |
| _ECIGSTS Calculated variable for four-level e-cigarette smoker status: everyday e-cigarette user, someday $\boldsymbol{e}$-cigarette user, former e-cigarette user, non-e-cigarette user. _ECIGSTS is derived from ECIGARET and ECIGNOW. |  |  |
| 1 | Current E-cigarette user <br> -- uses every day | Respondents who reported having used E-cigarettes in their lifetime and now use E-cigarettes every day. (ECIGARET=1 and ECIGNOW=1) |
| 2 | Current E-cigarette user <br> -- uses some days | Respondents who reported having used E-cigarettes in their lifetime and now use E-cigarettes some days. (ECIGARET=1 and ECIGNOW=2) |
| 3 | Former E-cigarette user | Respondents who reported having used E-cigarettes in their lifetime and currently do not use E-cigarettes. (ECIGARET=1 and ECIGNOW=3) |
| 4 | Never used E-cigarettes | Respondents who reported they had not used E-cigarettes in their lifetime. (ECIGARET=2) |
| 9 | Don't know/Refused/ Missing | Respondents who reported they didn't know if they had used E-cigarettes in their lifetime, those who refused to answer if they had used E-cigarettes in their lifetime, those who didn't know if they now used E-cigarettes every day, some days or not at all, those who refused to answer if they now used E-cigarettes every day, some days or not at all, or those with missing responses. (ECIGARET=7, 9, missing; or ECIGNOW=7, 9, missing) |
|  | SAS Code: | ```IF ECIGARET=2 THEN ECIGSTS=4; ELSE IF ECIGARET=1 THEN DO; IF ECIGNOW=1 THEN ECIGSTS=1; ELSE IF ECIGNOW=2 THEN ECIGSTS=2; ELSE IF ECIGNOW = 3 THEN ELSE _ECIGSTS=9; END; ELSE _ECIGSTS=9;``` |

Section 10: E-Cigarettes
_CURECIG Calculated variable for adults who are current e-cigarette users. _CURECIG is derived from _ECIGSTS.

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


| Section 11: Alcohol Consumption |  |  |
| :---: | :---: | :---: |
| DRNKANY5 Calculated variable for adults who reported having had at least one drink of alcohol in the past 30 days. DRNKANY5 is derived from ALCDAY5 |  |  |
| 1 | Yes | Respondents who reported drinking at least one alcoholic beverage in the past 30 days. ( $1<=$ ALCDAY5 <= 231) |
| 2 | No | Respondents who reported drinking no alcoholic beverages in the past 30 days. (ALCDAY5=888) |
| 7 | Don't know/Not Sure | Respondents who reported not knowing if they drank at least one alcoholic beverage in the past 30 days. (ALCDAY5=777) |
| 9 | Refused/Missing | Respondents who refused to answer or had a missing value for drinking at least one alcoholic beverage in the past 30 days. (ALCDAY5=999, Missing) |
|  | SAS Code: | ```IF 1 <= ALCDAY5 < 231 THEN DRNKANY5=1; ELSE IF ALCDAY5=888 THEN DRNKANY5=2; ELSE IF ALCDAY5=777 THEN DRNKANY5=7; ELSE DRNKANY5=9;``` |


| Section 11: Alcohol Consumption |  |  |
| :---: | :---: | :---: |
| DROCDY3_ Calculated variable for drink-occasions-per-day. DROCDY3_ is derived from ALCDAY5 by dividing the ALCDAY5 variable by $\mathbf{7}$ days per week or $\mathbf{3 0}$ days per month. |  |  |
| 0 | No Drink-Occasions per day | Respondents reported no occasions per day that they consumed alcohol. (ALCDAY5=888) |
| 1-899 | Drink-Occasions per day | Respondents reported number of occasions per day that they consumed alcohol. (ALCDAY5 not equal to $777,888,999$, or missing) |
| 900 | Don't know/ Not Sure Or Refused/ Missing | Respondents who reported they did not know how many days they had at least one drink of alcohol, those who refused to answer how many days they had at least one drink of alcohol, those with missing responses. (ALCDAY5=777, 999, or missing) |
|  | SAS Code: | ```IF ALCDAY5 NOTIN (888,777,999,.) THEN DO; IF 101 LE ALCDAY5 LE 107 THEN DROCDY3 =(ALCDAY5-100)/7; ELSE IF 201 LE ALCDAY5 LE 230 THEN DRÖCDY3_=(ALCDAY5-200)/30; END; ELSE IF ALCDAY5 EQ 888 THEN DROCDY3_=0; ELSE DROCDY3 =9; * DROCDY3_=round((DROCDY3_*100),1); *This is done after all of the alcohol calculations but the code is included here;``` |


| Section 11: Alcohol Consumption |  |  |
| :---: | :---: | :---: |
| RFBING5 Calculated variable for binge drinkers (males having five or more drinks on one occasion, females having four or more drinks on one occasion). _RFBING5 is derived from DRNK3GE5 and ALCDAY5. |  |  |
| 1 | No | Respondents who reported they did not drink in the past 30 days, or those who reported that they did drink alcohol in the past 30 days but did not report having five or more drinks of alcohol on an occasion. (ALCDAY5<231 and DRNK3GE5=88; or ALCDAY5=888) |
| 2 | Yes | Respondents who reported they did drink in the past 30 days and had five or more drinks on one or more occasions in the past month. (ALCDAY5<231 and $1<=$ DRNK3GE5<=76) |
| 9 | Don't know/Refused/ Missing | Respondents who reported that they did not know if they had consumed five or more drinks of alcohol on one occasion or refused to answer if they had consumed five or more drinks of alcohol on one occasion or those with missing responses. (DRNK3GE5=77, 99, missing; or ALCDAY5=777, 999, missing) |
|  | SAS Code: | ```IF ALCDAY5 NOTIN (888) THEN DO; IF 1 LE DRNK3GE5 LE 76 THEN _RFBING5=2; ELSE IF DRNK3GE5 IN (.,77,99) THEN _RFBING5=9; ELSE IF DRNK3GE5 IN (88) THEN _RFBING5=1; END; ELSE IF ALCDAY5 = 888 THEN _RFBING5=1; ELSE _RFBING5=9;``` |


| Section 11: Alcohol Consumption |  |  |
| :---: | :---: | :---: |
| _DRNKWEK Calculated variable for calculated total number of alcoholic beverages consumed per week. _DRNKWEK is derived from DROCDY3_ and AVEDRNK2 by multiplying the total number of drink occasions per day (DROCDY3_) by the average number of drinks per occasion (AVEDRNK2) times seven days. |  |  |
| 0 | Did not drink | Respondents who did not drink in the past month. (DROCDY3_=0) |
| 1-98999 | Number of drinks per week | Respondents reported number of alcoholic drinks in the past week. (0 < DROCDY3_ < 990) |
| 99900 | Don’t know/Not sure/ Refused/Missing | Respondents who refused to report the number of alcohol drinks consumed per day, or respondents who did not know the number of alcohol drinks consumed per day, or those with missing responses or respondents who refused to report the number drink occasions per day, or respondents who did not know the number of drink occasions per day, or those with missing responses. (AVEDRNK2=.,77,99 or DROCDY3_=900) |
|  | SAS Code: | IF DROCDY3_=0 THEN _DRNKWEK=0; <br> ELSE IF DRŌCDY3_=9 THEN DRNKWEK=999; <br> ELSE IF AVEDRNK $\overline{2}$ IN (.,77, 99$)$ THEN _DRNKWEK=999; <br> ELSE _DRNKWEK=AVEDRNK2*DROCDY3_*7; <br> * _DRN̄KWEK=ROUND((_DRNKWEK*100),1); <br> *This is done after all of the alcohol calculations but the code is included here; |


| Section 11: Alcohol Consumption |  |  |
| :---: | :---: | :---: |
| _RFDRHV5 Calculated variable for heavy drinkers (adult men having more than 14 drinks per week and adult women having more than 7 drinks per week). _RFDRHV5 is derived from _DRNKWEK, ALCDAY5, and SEX. |  |  |
| 1 | No | Male Respondents who reported having 14 drinks per week or less, or Female Respondents who reported having 7 drinks per day or week. (Sex=1 and _DRNKWEK <= 1400 or Sex=2 and _DRNKWEK <= 700 or ALCDAY5=888) |
| 2 | Yes | Male Respondents who reported having more than 14 drinks per week, or Female Respondents who reported having more than 7 drinks per week. ( $\operatorname{Sex}=1$ and _DRNKWEK > 1400 or $\operatorname{Sex}=2$ and _DRNKWEK > 700) |
| 9 | Don’t know/Refused/ Missing | Respondents with don't know, refused or missing responses for ALCDAY5 or _DRNKWEK. (ALCDAY5=777, 999, or missing, or _DRNKWEK=99, or missing) |
|  | SAS Code: | ```IF SEX=1 AND _DRNKWEK NOTIN (999,.) THEN DO; IF _DRNKWEK GT 14 THEN _RFDRHV5=2; ELSE IF _DRNKWEK LE 14 THEN _RFDRHV5=1; END; ELSE IF SEX=2 AND _DRNKWEK NOTIN (999,.) THEN DO; IF _DRNKWEK GT }7\mathrm{ THEN _RFDRHV5=2; ELSE IF _DRNKWEK LE 7 THEN _RFDRHV5=1; END; ELSE IF ALCDAY5 EQ 888 THEN _RFDRHV5=1; ELSE _RFDRHV5=9; ** ROUND OFF TO NO DECIMAL PLACES ** MULTIPLY BY 100 AND THEN ROUND OFF TO NO DECIMAL PLACES AND THEN REMOVE THE DECIMAL PLACES **; DROCDY3_=round((DROCDY3_*100),1); _DRNKWEK=ROUND((_DRNKWEK}*100),1)``` |

Section 12: Fruits \& Vegetables
FTJUDA2_ Calculated variable for fruit juice intake in times per day. FTJUDA2_ converts the FRUITJU2 variable to a per day response. (Two implied decimal places)

| 0-9999 | Times per day (two implied decimal places) | Respondents reported intake of fruit juice per day (FRUITJU2 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 (FRUITJU2 $=777,999$, or missing) |
|  | SAS Code: | ```IF 100 < FRUITJU2 < 200 THEN FTUUDA2_=FRUITJU2-100; ELSE IF 200 < FRUITJU2 < 300 THEN FTJUDA2_= (ROUND((FRUITJU2-200)/7,0.01)); ELSE IF 300 < FRUITJU2 < 400 THEN FTJUDA2_=(ROUND((FRUITJU2-300)/30,0.01)); ELSE IF FRUITJU2 = 555 THEN FTUUDA2_=0; ELSE IF FRUITJU2 = 300 THEN FTJUDA2_=0.02; ELSE IF FRUITJU2 IN (.,777,999) THEN FTJUDA2_=.; ** ROUND OFF **; FTJUDA2_=round((FTJUDA2_*100),1);``` |

Section 12: Fruits \& Vegetables
FRUTDA2_ Calculated variable for fruit intake in times per day. FRUTDA2_converts the FRUIT2 variable to a per day response. (Two implied decimal places)

| 0-9999 | Times per day (two implied decimal places) | Respondents reported intake of fruit per day (FRUIT2 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 (FRUIT2=777, 999, or missing) |
|  | SAS Code: | ```IF 100 < FRUIT2 < 200 THEN FRUTDA2_=FRUIT2-100; ELSE IF 200 < FRUIT2 < 300 THEN FRUTDA2_=(ROUND((FRUIT2-200)/7,0.01)); ELSE IF 300 < FRUIT2 < 400 THEN FRUTDA2_=(ROUND ((FRUIT2-300)/30,0.01)); ELSE IF FRUIT2 = 555 THEN FRUTDA2_=0; ELSE IF FRUIT2 = 300 THEN FRUTDA2-=0.02; ELSE IF FRUIT2 IN (.,777,999) THEN FRUTDA2_=.; ** ROUND OFF **; FRUTDA2_=round((FRUTDA2_*100),1);``` |

Section 12: Fruits \& Vegetables
GRENDA1_ Calculated variable for dark green vegetable intake in times per day. GRENDA1_converts the FVGREEN1 variable to a per day response (Two implied decimal places)

| 0-9999 | Times per day (two implied decimal places) | Respondents reported intake of dark green vegetables per day (FVGREEN1 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 (FVGREEN1=777,999, or missing) |
|  | SAS Code: | ```IF 100 < FVGREEN1 < 200 THEN GRENDA1_=FVGREEN1-100; ELSE IF 200 < FVGREEN1 < 300 THEN GRENDA1_= (ROUND((FVGREEN1-200)/7,0.01)); ELSE IF 300 < FVGREEN1 < 400 THEN GRENDA1_=(ROUND((FVGREEN1-300)/30,0.01)); ELSE IF FVGREEN1 = 555 THEN GRENDA1 =0; ELSE IF FVGREEN1 = 300 THEN GRENDA1 =0.02; ELSE IF FVGREEN1 IN (.,777,999) THEN GRENDA1_=.; ** ROUND OFF **; GRENDA1_=round((GRENDA1_*100),1);``` |


| Section 12: Fruits \& Vegetables |  |  |  |  |  |  |  |
| :---: | :---: | :--- | :--- | :---: | :---: | :---: | :---: |
| FRNCHDA_ Calculated variable for French-fry intake in times per day. FRNCHDA_converts the FRENCHF1 |  |  |  |  |  |  |  |
| variable to a per day response. (Two implied decimal places) |  |  |  |  |  |  |  |

Section 12: Fruits \& Vegetables
POTADA1_ Calculated variable for potato servings per day. POTADA1_ converts the POTATOE1 variable to a per day response.

| 0-9999 | Times per day | Respondents reported servings of potatoes per day (POTATOE1 not equal to 777, 999, or missing) |
| :---: | :---: | :---: |
| . | Don't know/ Not Sure Or Refused/ Missing | Respondents who reported they didn't know the quantity of potato servings consumed per day, those who refused to answer, and those with missing responses (POTATOE1=777, 999, or missing) |
|  | SAS Code: | ```IF 100 < POTATOE1 < 200 THEN POTADA1_=POTATOE1-100; ELSE IF 200 < POTATOE1 < 300 THEN POTADA1_= (ROUND ((POTATOE1-200)/7,0.01)); ELSE IF 300 < POTATOE1 < 400 THEN POTADA1_=(ROUND ((POTATOE1-300)/30,0.01)); ELSE IF POTATOE1 = 555 THEN POTADA1 =0; ELSE IF POTATOE1 = 300 THEN POTADA1_=0.02; ELSE IF POTATOE1 IN (.,777,999) THEN POTADA1_=.; ** ROUND OFF **; POTADA1_=round((POTADA1_*100),1);``` |

Section 12: Fruits \& Vegetables
VEGEDA2_ Calculated variable for other vegetable intake in times per day. VEGEDA2_converts the VEGETAB2 variable to a per day response. (Two implied decimal places)

| 0-9999 | Times per day (two implied decimal places) | Respondents reported intake of other vegetables per day (VEGETAB2 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 (VEGETAB2=777, 999, or missing) |
|  | SAS Code: | ```IF 100 < VEGETAB2 < 200 THEN VEGEDA2_=VEGETAB2-100; ELSE IF 200 < VEGETAB2 < 300 THEN VEGEDA2_= (ROUND((VEGETAB2-200)/7,0.01)); ELSE IF 300 < VEGETAB2 < 400 THEN VEGEDA2_= (ROUND ((VEGETAB2-300)/30,0.01)); ELSE IF VEGETAB2 = 555 THEN VEGEDA2_=0; ELSE IF VEGETAB2 = 300 THEN VEGEDA2_=0.02; ELSE IF VEGETAB2 IN (.,777,999) THEN VEGEDA2_=.; ** ROUND OFF **; VEGEDA2_=round((VEGEDA2_*100),1);``` |

Section 12: Fruits \& Vegetables
_MISFRT1 Calculated variable for the number of missing fruit responses. _MISFRT1 is derived from MFTJUDA2_ and MFRUTDA2

| 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: | $\begin{aligned} & \text { IF FTJUDA2_=. THEN MFTUUDA2_=1; } \\ & \text { ELSE MFTJUDA_ }=0 ; \\ & \text { IF FRUTDA2_ }=\text { THEN MFRUTDA2_=1; } \\ & \text { ELSE MFRUTDA2_=0; } \\ & \text { MISFRT1=SUM (MFTJUDA2_, MFRUTDA2_); } \end{aligned}$ |


| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| MISVEG1 Calculated variable for the number of missing vegetable responses. _MISVEG1 is derived from MGRENDA1_, MFRNCHDA_, MPOTADA1_ and MVEGEDA2_. |  |  |
| 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 GRENDA1_=. THEN MGRENDA1_=1; ELSE MGRENDA1_=0; IF FRNCHDA_=. THEN MFRNCHDA_=1; ELSE MFRNCHDA_=0; IF POTADA1_=. THEN MPOTADA1_=1; ELSE MPOTADA1_=0; IF VEGEDA2_=. THEN MVEGEDA2_=1; ELSE MVEGEDA2_=0; _MISVEG1=SUM (MGRENDA1_, MFRNCHDA_, MPOTADA1_, MVEGEDA1_);``` |

Section 12: Fruits \& Vegetables
_FRTRES1 Calculated variable for missing any fruit responses. _FRTRES1 is derived from _MISFRT1

| 0 | Not Included -- Missing Fruit Responses | Respondents with a missing value for one of the fruit variables ( $1<=$ MISFRT1<=2) |
| :---: | :---: | :---: |
| 1 | Included -- Not Missing Fruit Responses | Respondents with no missing fruit variables (_MISFRT1=0) |
|  | SAS Code: | ```FRTRES1=0; IF 1<=_MISFRT1<=2 THEN _FRTRES1=0; ELSE I\overline{F}``` |

## Section 12: Fruits \& Vegetables

_VEGRES1 Calculated variable for missing any vegetable responses._VEGRES1 is derived from GRENDA1_, FRNCHDA_, POTADA1_, VEGEDA1_ and _MISVEG1.

| 0 | Not Included -- Missing Vegetable Responses | Respondents with missing vegetable per day values ( $1<=$ MISVEG1<=4) |
| :---: | :---: | :---: |
| 1 | Included -- Not Missing Vegetable Responses | Respondents with no missing vegetable per day values (_MISVEG1=0) |
| . | Not asked or Missing | Respondents with a 99 value for all vegetable per day variables. |
|  | SAS Code: | ```VEGRES1=0; IF 1<= MISVEG1<=4 THEN _VEGRES1=0; ELSE IF _MISVEG1=0 THEN _VEGRES1=1;``` |


| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| _FRUTSU1 Calculated variable for total fruits consumed per day. _FRUTSU1 is derived from the individual fruit variables (FTJUDA2_, FRUTDA2_). Values for don't know, refused, or missing" (99) are excluded from the sum. |  |  |
| 0-99998 | Number of Fruits consumed per day (two implied decimal places) | Number of Fruits consumed per day (two implied decimal places) (FTJUDA2_+FRUTDA2_) |
| . | Not asked or Missing | Respondents with a 99 value for all four fruits per day variables. |
|  | SAS Code: | $\begin{aligned} & \quad \text { FRUTSU1 }=(\text { FTJUDA2_/100) + (FRUTDA2_/100); } \\ & \quad \text { FRUTSU1=round ((_FRUTSU1*100), 1); } \end{aligned}$ |


| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| _VEGESU1 Calculated variable for total vegetables consumed per day._VEGESU1 is derived from the individual <br> vegetable variables (GRENDA1_, FRNCHDA_, POTADA1_, and VEGEDA2_). Values for don't <br> know, refused, or missing" (99) are excluded from the sum. |  |  |
| 0-99998 | Number of Vegetables consumed per day (two implied decimal places) | Sum of all vegetable per day values (two implied decimal places) (GRENDA1_+FRNCHDA_+POTADA1_+VEGEDA2_) |
| . | Not asked or Missing | Respondents with a 99 value for all vegetable per day variables. |
|  | SAS Code: | $\begin{aligned} & \text { VEGESU1=(GRENDA1_/100) + (FRNCHDA_/100) + (POTADA1_/100) }+ \\ & \text { (VEGEDA2_/100); } \\ & \quad \text { VEGESU1=round ((_VEGESU1*100),1); } \end{aligned}$ |

Section 12: Fruits \& Vegetables _FRTLT1A Calculated variable for consume fruit 1 or more times per day. _FRTLT1A is derived from _FRUTSU1

| 1 | Consumed fruit one or more times per day | Respondents that reported consuming Fruit 1 or more times a day (_FRUTSU1/100 >=1) |
| :---: | :---: | :---: |
| 2 | Consumed fruit less than one time per day | Respondents that reported consuming Fruit less than 1 time a day (_FRUTSU1/100<1) |
| 9 | Don't know, refused or missing values | Respondents with don't know, not sure, refused or missing responses (_FRUTSU1=.) |
|  | SAS Code: | IF $0<=($ FRUTSU1/100) < 1 THEN FRTLT1A=2; ELSE IF (_FRUTSU1/100) >= 1 THEN _FRTLT1A=1; ELSE _FRTLT1A=9; |

## Calculated Variables in the 2017 Behavioral Risk Factor Surveillance System Data File (continued)

| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| _VEGLT1A Calculated variable for consume vegetables 1 or more times per day. _VEGLT1A is derived from _VEGESU1 |  |  |
| 1 | Consumed vegetables one or more times per day | Respondents that reported consuming vegetables 1 or more times a day (_VEGESU1/100 >=1) |
| 2 | Consumed vegetables less than one time per day | Respondents that reported consuming vegetables less than 1 time a day (_VEGESU1/100<1) |
| 9 | Don't know, refused or missing values | Respondents with don't know, not sure, refused or missing responses (_VEGESU1=.) |
|  | SAS Code: | $\begin{aligned} & \text { IF } 0<=(\text { VEGESU1/100) < } 1 \text { THEN VEGLT1A=2; } \\ & \text { ELSE IF (_VEGESU1/100) >= } 1 \text { THEN _VEGLT1A=1; } \\ & \text { ELSE VEGLT1A=9; } \end{aligned}$ |


| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| FRT16A Calculated variable for reported consuming fruit >16 per day. _FRT16A is derived from _FRUTSU1 |  |  |
| 0 | Not Included -- Values are too high | Respondents with an out-of-range value for sum of fruits per day (_FRUTSU1>16) |
| 1 | Included -- Values are in accepted range | Respondents with value for sum of fruits per day in acceptable range (_FRUTSU1<=16) |
| . | Not asked or Missing | Respondents with a 99 value for both fruit per day variables. |
|  | SAS Code: | $\begin{aligned} & \text { IF (_FRUTSU1/100)>16 THEN } \quad \text { FRT16A=0; } \\ & \operatorname{ELSE} \text { IF } \quad\left(\_F R U T S U 1 / 100\right)<=16 \text { THEN _FRT16A=1; } \end{aligned}$ |

Section 12: Fruits \& Vegetables
_VEG23A Calculated variable for reported consuming vegetables >23 per day. _VEG23A is derived from _VEGESU1

| 0 | Not Included -- Values <br> are too high | Respondents with an out-of-range value for sum of vegetables per day (_VEGESU1>23) |
| :---: | :---: | :--- |
| 1 | Included -- Values are in <br> accepted range | Respondents with value for sum of vegetables per day in acceptable range (_VEGESU1<=23) |
| . | Not asked or Missing | Respondents with a 99 value for all vegetable per day variables. |
| SAS Code: | IF (_VEGESU1/100) >23 THEN <br> ELSE IF $\quad\left(\_V E G E S U 1 / 100\right)<=23-T H E N ~$$\quad$ VEG23A $=1 ;$ |  |


| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| _FRUITE1 Calculated variable for fruit exclusion from analyses. _FRUITE1 is derived from _FRTRES1 and _FRT16A |  |  |
| 0 | No missing values and in accepted range | Respondents with no missing fruit values and in accepted range (_FRTRES1=1 AND _FRT16A=1) |
| 1 | Missing Fruit responses | Respondents missing at least one fruit per day value (_FRTRES1=0) |
| 2 | Fruit values out of range | Respondents with an out of range value for sum of fruits per day (_FRTRES1=1 AND _FRT16A=0) |
| . | Not asked or Missing | Respondents with a 99 value for both fruit per day variables. |
|  | SAS Code: | $\begin{aligned} & \text { IF FRTRES1=1 AND_FRT16A=0 THEN _FRUITE1=2; } \\ & \text { ELSE IF FRTRES1=1 AND_FRT16A=1 THEN _FRUITE1=0; } \\ & \text { ELSE _FRUITE1=1; } \end{aligned}$ |


| Section 12: Fruits \& Vegetables |  |  |
| :---: | :---: | :---: |
| _VEGETE1 Calculated variable for vegetable exclusion from analyses. _VEGETE1 is derived from _VEGRES1 and _VEG23A. |  |  |
| 0 | No missing values and in accepted range | Respondents with no missing vegetable per day values and in all accepted range (_VEGRES1=1 AND _VEG23A=1) |
| 1 | Missing Vegetable responses | Respondents with missing vegetable per day values (_VEGRES1=0) |
| 2 | Vegetable values out of range | Respondents with out of range vegetable per day values (_VEGRES1=1 AND _VEG23A=0) |
| . | Not asked or Missing | Respondents with a 99 value for all vegetable per day variables. |
|  | SAS Code: | IF _VEGRES1=1 AND _VEG23A=0 THEN _VEGETE1=2; ELSE IF _VEGRES1=1 AND _VEG23A=1 THEN _VEGETE1=0; ELSE _VEGETE1=1; |

Section 13: Exercise (Physical Activity)
_TOTINDA Calculated variable for adults who reported doing physical activity or exercise during the past 30 days other than their regular job. _TOTINDA is derived from EXERANY2.

| 1 | Had physical activity or <br> exercise | Respondents who reported doing any physical activity or exercise. (EXERANY2=1) |
| :---: | :---: | :--- |
| 2 | No physical activity or <br> exercise in last 30 days | Respondents who reported doing no physical activity or exercise. (EXERANY2=2) |
| 9 | Don't know/Refused/ <br> Missing | Respondents who reported they didn't know or refused to answer, and those with missing <br> responses for the physical activity/exercise question. (EXERANY2=7, 9, missing) |
|  | SAS Code: | IF EXERANY2 IN (1) THEN TOTINDA=1; <br> ELSE IF EXERANY2 IN (2) THEN TOTINDA=2; ; |
|  | ELSE IF EXERANY2 IN (.,7,9) THEN TOTINDA=9; |  |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| METVL11_ Calculated variable for activity met value for first activity. METVL11_ is derived from EXRACT11. |  |  |
| 0 | Activity MET Value | Estimated first activity MET value |
| 1-128 | Activity MET Value (one implied decimal place) | Estimated first activity MET value |
|  | Not asked or Missing | Respondents with a don't know, refused or missing value for the first activity (EXRACT11=(77,99,.)) |
|  | SAS Code: | ```IF EXRACT11 IN \((34,60,67,69)\) THEN METVL11_=0; ELSE IF EXRACT11 IN (47) THEN METVL11_=2. \(\overline{5}\); ELSE IF EXRACT11 IN \((13,17,56,63)\) THEN METVL11_=3; ELSE IF EXRACT11 IN \((33,73)\) THEN METVL11_=3.3; ELSE IF EXRACT11 IN \((16,19,64,71)\) THEN METVL11_=3.5; ELSE IF EXRACT11 IN \((1,9,11,36)\) THEN METVL11_= \(\overline{3} .8\); ELSE IF EXRACT11 IN \((59,76)\) THEN METVL11_=4; ELSE IF EXRACT11 IN \((20,75)\) THEN METVL11_=4. 3 ; ELSE IF EXRACT11 IN (72) THEN METVL11_=4.8; ELSE IF EXRACT11 IN \((15,18,26,43,46,5 \overline{2})\) THEN METVL11_=5; ELSE IF EXRACT11 IN \((48,50)\) THEN METVL11 \(=5.3\); ELSE IF EXRACT11 IN \((4,24,31)\) THEN METVL11_=5.5; ELSE IF EXRACT11 IN \((8,58)\) THEN METVL11_=5.8; ELSE IF EXRACT11 IN \((22,25,32,37,55,57, \overline{6} 6,68)\) THEN METVL11_=6; ELSE IF EXRACT11 IN (41) THEN METVL11_=6.3; ELSE IF EXRACT11 IN (5) THEN METVL11_=6.5; ELSE IF EXRACT11 IN \((6,7)\) THEN METVL11_=6.8; ELSE IF EXRACT11 IN \((3,28,35,40,42,44, \overline{4} 5,49,51)\) THEN METVL11_=7; ELSE IF EXRACT11 IN \((2,53,61)\) THEN METVL11_=7.3; ELSE IF EXRACT11 IN (14) THEN METVL11_=7.8; ELSE IF EXRACT11 IN \((23,29,30,38,62)\) THEN METVL11_=8; ELSE IF EXRACT11 IN (54) THEN METVL11_=9; ELSE IF EXRACT11 IN (27) THEN METVL11-=9.8; ELSE IF EXRACT11 IN (74) THEN METVL11_=10.3; ELSE IF EXRACT11 IN (39) THEN METVL11_=11; ELSE IF EXRACT11 IN (21) THEN METVL11_-=12; ELSE IF EXRACT11 IN (12) THEN METVL11_=12.5; ELSE IF EXRACT11 IN (10) THEN METVL11_=12.8; ELSE IF EXRACT11 IN (98) THEN METVL11_-=4.5; METVL11_= (ROUND (METVL11_, 0.1)) *10;``` |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| METVL21_ Calculated variable for activity met value for second activity. METVL21_ is derived from EXRACT21. |  |  |
| 0 | Activity MET Value | Estimated second activity MET value |
| 1-128 | Activity MET Value (one implied decimal place) | Estimated second activity MET value |
|  | Not asked or Missing | Respondents with a don't know, refused or missing value for the second activity (EXRACT21=(77,99,.)) |
|  | SAS Code: | ```IF EXRACT21 IN \((34,60,67,69,88)\) THEN METVL21_=0; ELSE IF EXRACT21 IN (47) THEN METVL21 =2.5; ELSE IF EXRACT21 IN \((13,17,56,63)\) THEN METVL21_=3; ELSE IF EXRACT21 IN \((33,73)\) THEN METVL21_=3.3; ELSE IF EXRACT21 IN \((16,19,64,71)\) THEN METVL21 \(=3.5\); ELSE IF EXRACT21 IN \((1,9,11,36)\) THEN METVL21_= \(\overline{3} .8\); ELSE IF EXRACT21 IN \((59,76)\) THEN METVL21_=4; ELSE IF EXRACT21 IN \((20,75)\) THEN METVL21_=4.3; ELSE IF EXRACT21 IN (72) THEN METVL21_=4.8; ELSE IF EXRACT21 IN \((15,18,26,43,46,5 \overline{2})\) THEN METVL21_=5; ELSE IF EXRACT21 IN \((48,50)\) THEN METVL21_=5.3; ELSE IF EXRACT21 IN \((4,24,31)\) THEN METVL \(\overline{2} 1 \_=5.5\); ELSE IF EXRACT21 IN \((8,58)\) THEN METVL21_=5.8; ELSE IF EXRACT21 IN \((22,25,32,37,55,57, \overline{6} 6,68)\) THEN METVL21_=6; ELSE IF EXRACT21 IN (41) THEN METVL21_=6.3; ELSE IF EXRACT21 IN (5) THEN METVL21_=6.5; ELSE IF EXRACT21 IN \((6,7)\) THEN METVL2 \(1 \_=6.8\); ELSE IF EXRACT21 IN \((3,28,35,40,42,44,45,49,51)\) THEN METVL21_=7; ELSE IF EXRACT21 IN \((2,53,61)\) THEN METVL21_=7.3; ELSE IF EXRACT21 IN (14) THEN METVL21_=7.8; ELSE IF EXRACT21 IN \((23,29,30,38,62)\) THEN METVL21_=8; ELSE IF EXRACT21 IN (54) THEN METVL21_=9; ELSE IF EXRACT21 IN (27) THEN METVL21_-=9.8; ELSE IF EXRACT21 IN (74) THEN METVL21_- \(=10.3\); ELSE IF EXRACT21 IN (39) THEN METVL21_=11; ELSE IF EXRACT21 IN (21) THEN METVL21_=12; ELSE IF EXRACT21 IN (12) THEN METVL21_- \(=12.5\); ELSE IF EXRACT21 IN (10) THEN METVL21_=12.8; ELSE IF EXRACT21 IN (98) THEN METVL21_=4.5; METVL21_= (ROUND (METVL21_,0.1))*10;``` |


| Section 13: 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 Oxygen Consumption (two implied decimal places) | Respondents estimated maximum oxygen consumption ((IF (SEX=1) THEN MAXVO2_=60-(.55*AGE)) or (IF (SEX=2) THEN MAXVO2_=48-(.37*AGE))) |
| 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 MAXXVO2_=48-(.37*AGE); END; MAXVO2_=(ROUND (MAXVO2_,0.01)*100);``` |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| FC60 | Calculated variable for estimated functional capacity. FC60_ is derived from MAXVO2_. |  |
| 0-8590 | Estimated Functional Capacity (2 implied decimal places) | Respondents estimated functional capacity ((ROUND $((.60 *($ MAXVO2_/100)/3.5),0.01))*100) |
| 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_=(ROŪND (FC60_,0.01))*100;``` |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| ACTIN11_ Calculated variable for estimated activity intensity for first activity. ACTIN11_ is derived from FC60_ and METVL11_. |  |  |
| 0 | Not Moderate or Vigorous or No Activity | Respondent reported first activity to be one with estimated intensity not moderate or vigorous ((METVL11_/10>=0 )) |
| 1 | Moderate | Respondent reported first activity to be one with moderate estimated intensity ((METVL11_/10>=3.0)) |
| 2 | Vigorous | Respondent reported first activity to be one with vigorous estimated intensity ((METVL11_/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; <br> IF ((METVL11_/10) >= (FC60_/100)) THEN ACTIN11_=2; <br> ELSE IF ((METVL11_/10) >= $\overline{3} .0)$ THEN ACTIN11_=1; <br> ELSE IF ( (METVL11_/10) >= 0) THEN ACTIN11_= $\overline{0}$; END; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| ACTIN21_ Calculated variable for estimated activity intensity for second activity. ACTIN21_ is derived from FC60_ and METVL21. |  |  |
| 0 | Not Moderate or Vigorous or No Activity | Respondent reported second activity to be one with estimated intensity not moderate or vigorous ((METVL21_/10>=0 )) |
| 1 | Moderate | Respondent reported second activity to be one with moderate estimated intensity ((METVL21_/10>=3.0 )) |
| 2 | Vigorous | Respondent reported second activity to be one with vigorous estimated intensity ((METVL21_/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; <br> IF ((METVL21_/10) >= (FC60_/100)) THEN ACTIN21_=2; <br> ELSE IF ( (METVL21_/10) >= $\overline{3} .0)$ THEN ACTIN21_=1; <br> ELSE IF ((METVL21_/10) >= 0) THEN ACTIN21_= $\overline{0}$; <br> END; |


| Section 13: 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 who reported they didn't know, refused or had a missing value for EXERHMM1 (EXERHMM1 $=(777,999,)$. |
|  | SAS Code: | IF EXERHMM1 NOTIN (777,999,.) THEN DO; <br> PADUR1_=INT (EXERHMM1/100)*60 + (EXERHMM1-INT (EXERHMM1/100)*100); END; |

Section 13: 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 + <br> (EXERHMM2-INT(EXERHMM2/100)*100)) |
| :---: | :---: | :--- |
| . | Not asked or Missing | Respondents who reported they didn't know, refused or had a missing value for EXERHMM2 <br> (EXERHMM2= (777,999,.)) |
|  | SAS Code: | IF EXERHMM2 NOTIN $(777,999,$.$) THEN DO;$ <br> PADUR2_=INT (EXERHMM2/100)*60 $+\quad(E X E R H M M 2-I N T ~(E X E R H M M 2 / 100) * 100) ; ~$ <br> END; |


| Section 13: Exercise (Physical Activity) |  |
| :---: | :---: | :--- |
| PAFREQ1_ Calculated variable for physical activity frequency per week for first activity. PAFREQ1_ is derived |  |
| from EXERANY2 and EXEROFT1. |  |


| Section 13: 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)) |
|  | SAS Code: | IF EXERANY2=1 AND EXEROFT2 NOTIN (777,999,.) THEN DO; <br> IF (101 <= EXEROFT2 <= 199) THEN PAFREQ2_=EXEROFT2-100; <br> ELSE IF (201 <= EXEROFT2 <= 299) THEN <br> PAFREQ2_=(EXEROFT2-200)/(30/7); <br> END; <br> ELSE PAFREQ2 =.; <br> PAFREQ2_=(ROUND (PAFREQ2_, .001))*1000; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _MINAC11 Calculated variable for minutes of physical activity per week for first activity. _MINAC11 IS DERIVED FROM PADUR1_, PAFREQ1_, ACTIN11_AND EXRACT11. |  |  |
| 0 | Minutes of Activity per week | Respondents who reported doing zero minutes of first activity per week ((PADUR1_>=0 AND PADUR1_<10) or (PADUR2_=. AND ACTIN21_=0)) |
| 1-99999 | Minutes of Activity per week | Respondents who reported doing one or more minutes of first activity per week (ROUND((PAFREQ1_/1000)*PADUR1_,1)) |
|  | Not asked or Missing | Respondents who reported they didn't know, refused or had a missing value for the number of minutes per week for the first activity |
|  | SAS Code: | IF PADUR1_>=10 THEN _MINAC11=ROUND ((PAFREQ1_/1000)*PADUR1_,1); <br> ELSE IF (PADUR1_>=0 ĀND PADUR1_<10) THEN _MINAC11=0; <br> IF (ACTIN11_=0) THEN MINAC11=0; <br> IF EXRACT11 ${ }^{-}$IN $(34,60,67,69)$ THEN _MINAC11=0; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _MINAC21 Calculated variable for minutes of physical activity per week for second activity. _MINAC21 IS DERIVED FROM PADUR1_, PAFREQ1_, ACTIN21_ AND EXRACT21. |  |  |
| 0 | Minutes of Activity per week | Respondents who reported doing zero minutes of second activity per week ((PADUR2_>=0 AND PADUR2_<10) or (PADUR2_=. AND ACTIN21_=0)) |
| 1-99999 | Minutes of Activity per week | Respondents who reported doing one or more minutes of second activity per week (ROUND((PAFREQ2_/1000)*PADUR2_)) |
|  | Not asked or Missing | Respondents who reported they didn't know, refused or had a missing value for the number of minutes per week for the second activity |
|  | SAS Code: | ```IF PADUR2_>=10 THEN _MINAC21=ROUND((PAFREQ2_/1000)*PADUR2_); ELSE IF (\overline{PADUR2_>=0 ĀND PADUR2_<10) THEN _MINNAC21=0;} IF (ACTIN21_=0) THEN MINAC21=0; IF EXRACT21 IN (34,60,67,69,88) THEN _MINAC21=0;``` |

Section 13: 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 | Respondents that did not report doing any strengthening activity or didn't know, refused or had a missing value for STRENGTH |
|  | SAS Code: | IF STRENGTH IN (777,999,.) THEN STRFREQ_=.; <br> ELSE IF (STRENGTH < 200) THEN STRFREQ_= STRENGTH-100; <br> ELSE IF (200 < STRENGTH < 300) THEN STRFREQ_= (STRENGTH-200)/(30/7); <br> ELSE IF (STRENGTH = 888) THEN STRFREQ_=0; <br> STRFREQ_= (ROUND (STRFREQ_, .001) ) *1000; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| PAMISS1_ Calculated variable for missing physical activity data. PAMISS1_ is derived from ACTIN11_, _MINAC11, ACTIN21_,_MINAC21 and EXERANY2. |  |  |
| 0 | Not Missing Physical Activity Data | Respondents with no missing physical activity data ((NMISS(ACTIN11_,_MINAC11,ACTIN21_,_MINAC21)=0 AND EXERANY2=1) or EXERANY2=2) |
| 1 | Missing Physical Activity Data | Respondents with missing physical activity data ((NMISS(ACTIN11_,_MINAC11,ACTIN21_,_MINAC21)>0 AND EXERANY2=1)) |
| 9 | Don’t know/ Not Sure/ Refused | Respondents that didn't know or refused to answer if they did any activity |
|  | SAS Code: | ```IF (NMISS (ACTIN11_,_MINAC11,ACTIN21_,_MINAC21)>0 AND EXERANY2=1) THEN PAMISS1 =1; ELSE IF EXERANY2=1 OR EXERANY2=2 THEN PAMISS1_=0; ELSE PAMISS1_=9;``` |

Section 13: Exercise (Physical Activity)
PAMIN11_ Calculated variable for minutes of physical activity per week for first activity. PAMIN11_ is derived from ACTIN11_ and _MINAC11.

| $0-99999$ | Minutes of Activity per <br> 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 <br> minutes |
| SAS Code: | IF ACTIN11_=2 THEN DO; <br> PAMIN11_=ROUND (_MINAC11*2,1); <br> END; <br> ELSE IF ACTIN11_=1 THEN DO; <br> PAMIN11_=ROUND (_MINAC11, 1); <br> END; <br> IF ACTIN11_=0 THEN PAMIN11_=0; |  |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| PAMIN21_ Calculated variable for minutes of physical activity per week for second activity. PAMIN21_ is derived from ACTIN21_ and _MINAC21. |  |  |
| 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 |
|  | SAS Code: | IF ACTIN21 =2 THEN DO; PAMIN21_=RŌUND (_MINAC21*2,1); END; <br> ELSE IF ACTIN21_=1 THEN DO; PAMIN21_=ROUND (_MINAC21,1); END; <br> IF ACTIN21_=0 THEN PAMIN21_=0; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :--- | :--- |
| PA1MIN_Calculated variable for minutes of total physical activity per week. PA1MIN_is derived from <br> PAMIN11_ and PAMIN21_. |  |  |
| $0-99999$ | Minutes of Activity per <br> week | Respondents minutes of combined activity or vigorous equivalent minutes <br> (ROUND((SUM(PAMIN11_,PAMIN21_)),1)) |
| . | Not asked or Missing | Respondents with no value for minutes of combined activity and no value for vigorous <br> equivalent minutes |
|  | SAS Code: | PA1MIN_=ROUND ( (SUM (PAMIN11_, PAMIN21_)),1); ; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| PAVIG11_ Calculated variable for minutes of vigorous physical activity per week for first activity. PAVIG11_ is derived from ACTIN11_ and _MINAC11. |  |  |
| 0-99999 | Minutes of Activity per week | Respondents vigorous activity minutes of first activity |
|  | Not asked or Missing | Respondents with no value for vigorous activity minutes of first activity |
|  | SAS Code: | IF ACTIN11 =2 THEN PAVIG11 =ROUND( MINAC11,1); ELSE IF ACT̄TN11_ IN $(0,1)$ THEN PAVĪG11_=0; |

Section 13: Exercise (Physical Activity)
PAVIG21_ Calculated variable for minutes of vigorous physical activity per week for second activity. PAVIG21_ is derived from ACTIN21_ and _MINAC21.

| $0-99999$ | Minutes of Activity per <br> week | Respondents vigorous activity minutes of second activity |
| :---: | :---: | :--- |
| . | Not asked or Missing | Respondents with no value for vigorous activity minutes of second activity |
|  | SAS Code: | IF ACTIN21_=2 THEN PAVIG21_=ROUND (_MINAC21,1); <br> ELSE IF ACTIN21_IN $(0,1)$ THEN PAVIG21_ $=0 ;$ |

Section 13: Exercise (Physical Activity)
PA1VIGM_ Calculated variable for minutes of total vigorous physical activity per week. PA1VIGM_ is derived from PAVIG11_ and PAVIG21_.

| $0-99999$ | Minutes of Activity per <br> week | Respondents vigorous activity minutes of combined activity <br> (ROUND((SUM(PAVIGM1_,PAVIGM2_)),1)) |
| :---: | :---: | :--- |
| . | Not asked or Missing | Respondents with no value for vigorous activity minutes of combined activity |
|  | SAS Code: | PA1VIGM_=ROUND ((SUM (PAVIG11_, PAVIG21_)),1); |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _PACAT1 Calculated variable for physical activity categories. _PACAT1 is derived from EXERANY2, PA1MIN_, PAMISS1_ and PA1VIGM_. |  |  |
| 1 | Highly Active | Respondents who reported doing enough physical activity to meet the 300-minute (or vigorous equivalent) aerobic recommendation ((PA1MIN_>300) or (PA1VIGM_> 150)) |
| 2 | Active | Respondents who reported doing 150-300 minutes (or vigorous equivalent) of physical activity ( $150<=$ PA1MIN_ < = 300 AND PAMISS1_=0) |
| 3 | Insufficiently Active | Respondents who reported doing insufficient physical activity (11-149 minutes) ( $1<=$ PA1MIN_ <=149 AND PAMISS1_=0) |
| 4 | Inactive | Respondents who reported doing no physical activity ((PA1MIN_=0 AND PAMISS1_=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 _PACAT1=4; ELSE IF EXERANY2 IN (.,7,9) THEN _PACAT1=9; ELSE IF EXERANY2=1 THEN DO; IF PA1MIN_ > 300 THEN _PACAT1=1; ELSE IF PA\overline{1VIGM_ > 150 THEN _PACAT1=1;} ELSE IF 150<= \overline{PA1MIN_<= 300}}\mathrm{ AND PAMISS1_=0 THEN_PACAT1=2; ELSE IF 1 <= PA1MIN_ <=149 AND PAMISS1_=0 THEN _PACAT1=3; ELSE IF PA1MIN_=0 ANND PAMISS1_=0 THEN __PACAT1=4; ELSE _PACAT1=9; END;``` |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| PAINDX1 Calculated variable for physical activity index. _PAINDX1 is derived from EXERANY2, PAMISS1_ and PA1MIN_. |  |  |
| 1 | Meet Aerobic Recommendations | Respondents who reported doing 150+ minutes (or vigorous equivalent) of physical activity (PA1MIN_ >= 150) |
| 2 | Did Not Meet Aerobic Recommendations | Respondents who reported doing insufficient physical activity ( $0-149$ minutes) ( $(0<=$ PA1MIN_ < 150 AND PAMISS1_=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 _PAINDX1=2; ELSE IF EXERANY2 IN (.,7,9) THEN _PAINDX1=9; ELSE IF EXERANY2=1 THEN DO; IF PA1MIN_ >= 150 THEN _PAINDX1=1; ELSE IF 0 <= PA1MIN_ < 150 AND PAMISS1_=0 THEN _PAINDX1=2; ELSE _PAINDX1=9; END;``` |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _PA150R2 Calculated variable for adults that participated in 150 minutes (or vigorous equivalent minutes) of physical activity per week.. _PA150R2 is derived from EXERANY2, PA1VIGM_, PAMISS1_, and PA1MIN_. |  |  |
| 1 | 150+ minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing enough physical activity to meet the 150 -minute aerobic recommendation (PA1MIN_ >= 150 or PA1VIGM_ >= 75) |
| 2 | 1-149 minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing insufficient physical activity to meet the 150 -minute aerobic recommendation ( $0<$ PA1MIN_< 150 AND PAMISS1_=0) |
| 3 | 0 minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing no physical activity (PA1MIN_=0 AND PAMISS1_=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 _PA150R2=3; <br> ELSE IF EXERANY2 IN $^{-}(7,9,$.$) THEN _PA150R2=9;$ <br> ELSE IF EXERANY2=1 THEN DO; <br> IF PA1VIGM_ >= 75 THEN _PA150R2=1; <br> ELSE IF PĀMIN_ >= 150 THEN _PA150R2=1; <br> ELSE IF $0<P A \overline{1} M I N \_<150$ AND $\bar{D}$ PAMISS1_=0 THEN _PA150R2=2; <br> ELSE IF PA1MIN_=0 $\overline{\text { AnND PAMISS1_=0 THEN }}{ }^{-}$_PA150R2=3; <br> ELSE _PA150R2= $\overline{9}$; <br> END; |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| PA300R2 Calculated variable for adults that participated in 300 minutes (or vigorous equivalent minutes) of physical activity per week. _PA300R2 is derived from EXERANY2, PAMISS1_ and PA1MIN_. |  |  |
| 1 | $301+$ minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing enough physical activity to meet the 300-minute aerobic recommendation (PA1MIN_> 300) |
| 2 | 1-300 minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing insufficient physical activity to meet the 300-minute aerobic recommendation ( $0<$ PA1MIN_<= 300 AND PAMISS1_=0) |
| 3 | 0 minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing no physical activity ((PA1MIN_=0 AND PAMISS1_=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 _PA300R2=3; ELSE IF EXERANY2 IN (9,7,.) THEN _PA300R2=9; ELSE IF EXERANY2=1 THEN DO; IF PA1MIN_ > 300 THEN _PA300R2=1; ELSE IF 0 < PA1MIN_ <= 300 AND PAMISS1_=0 THEN _PA300R2=2; ELSE IF PA1MIN_=0 \overline{AND PAMISS1_=0 THEN _PA300R2=\overline{3};}; ELSE _PA300R2=\overline{9}; END;``` |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _PA30021 Calculated variable for adults that participated in 300 minutes (or vigorous equivalent minutes) of physical activity per week (2-levels).. _PA30021 is derived from _PA300R2. |  |  |
| 1 | $301+$ minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing enough physical activity to meet the $300+$ minute aerobic recommendation (_PA300R2=1) |
| 2 | 0-300 minutes (or vigorous equivalent minutes) of physical activity | Respondents who reported doing insufficient physical activity to meet the 300-minute aerobic recommendation (_PA300R2 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: | $\begin{aligned} & \text { IF PA300R2=1 THEN PA30021=1; } \\ & \text { ELSE IF PA300R2 IN }(2,3) \text { THEN _PA30021=2; } \\ & \text { ELSE_PA30021=9; } \end{aligned}$ |


| Section 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _PASTRNG Calculated variable for muscle strengthening recommendation. _PASTRNG is derived from STRFREQ_ |  |  |
| 1 | Meet muscle strengthening recommendations | Respondents who reported doing enough physical activity to meet the strengthening recommendation (STRFREQ_/1000 >=2) |
| 2 | Did not meet muscle strengthening recommendations | Respondents who 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 13: Exercise (Physical Activity) |  |  |
| :---: | :---: | :---: |
| _PAREC1 Calculated variable for aerobic and strengthening guideline. _PAREC1 is derived from _PASTRNG and _PAINDX1. |  |  |
| 1 | Met Both Guidelines | Respondents who reported doing enough physical activity to meet the aerobic and strengthening recommendations (_PASTRNG=1 AND _PAINDX1=1) |
| 2 | Met Aerobic Guidelines Only | Respondents who reported doing enough physical activity to meet the aerobic recommendation but not the strengthening (_PASTRNG=2 AND _PAINDX1=1) |
| 3 | Met Strengthening Guidelines Only | Respondents who reported doing enough physical activity to meet the strengthening recommendation but not the aerobic (_PASTRNG=1 AND _PAINDX1=2) |
| 4 | Did not meet Either Guideline | Respondents who reported doing physical activity but not enough to meet either the aerobic or strengthening recommendations (_PASTRNG=2 AND _PAINDX1=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 _PAINDX1=1 THEN _PAREC1=1; <br> ELSE IF _PASTRNG=2 AND _PAINDX1=1 THEN _PAREC1=2; <br> ELSE IF _PASTRNG=1 AND _PAINDX1=2 THEN _PAREC1=3; <br> ELSE IF _PASTRNG=2 AND _PAINDX1=2 THEN _PAREC1=4; <br> ELSE _PAREC1=9; |



| Section 14: Seatbelt Use |  |  |
| :---: | :---: | :---: |
| _RFSEAT2 Calculated variable for always or nearly always wear seat belts calculated variable. _RFSEAT2 is derived from SEATBELT. |  |  |
| 1 | Always or Almost Always Wear Seat Belt | Respondents who reported they always or nearly always use a seatbelt when they ride or drive in a car or they never drive or ride in a car. (SEATBELT=1,2,8) |
| 2 | Sometimes, Seldom, or Never Wear Seat Belt | Respondents who reported they sometimes, seldom, or never use a seatbelt when they ride or drive in a car. (SEATBELT=3,4,5) |
| 9 | Don't know/Not Sure or Refused/ Missing | Respondents who reported they don't know, are not sure, refused or with missing responses for if they use a seatbelt when they ride or drive in a car. (SEATBELT=7,9 or missing) |
|  | SAS Code: | IF SEATBELT IN (1,2,8) THEN RFSEAT2=1; ELSE IF SEATBELT IN $(3,4,5)$ THEN RFSEAT2=2; ELSE RFSEAT2=9; |


| Section 14: Seatbelt Use |  |  |
| :---: | :---: | :---: |
| RFSEAT3 Calculated variable for always wear seat belts calculated variable. _RFSEAT3 is derived from SEATBELT. |  |  |
| 1 | Always Wear Seat Belt | Respondents who reported they always use a seatbelt when they ride or drive in a car or they never drive or ride in a car. (SEATBELT$=1,8$ ) |
| 2 | Don't Always Wear Seat Belt | Respondents who reported they nearly always, sometimes, seldom, or never use a seatbelt when they ride or drive in a car. (SEATBELT=2,3,4,5) |
| 9 | Don't know/Not Sure or Refused/ Missing | Respondents who reported they don't know, are not sure, refused or have missing responses to if they use a seatbelt when they ride or drive in a car. (SEATBELT $=7,9$ or missing) |
|  | SAS Code: | IF SEATBELT IN $(1,8)$ THEN RFSEAT3=1; ELSE IF SEATBELT IN $(2,3,4,5)$ THEN _RFSEAT3=2; ELSE _RFSEAT3=9; |


| Section 15: Immunization |  |  |
| :---: | :---: | :---: |
| _FLSHOT6 Calculated variable for adults aged 65+ who have had a flu shot within the past year. _FLSHOT6 is derived from FLUSHOT6. |  |  |
| 1 | Yes | Respondents aged 65 or older who reported having a flu shot within the past 12 months. (AGE >/= 65 and FLUSHOT6=1) |
| 2 | No | Respondents aged 65 or older who reported not having had a flu shot within the past 12 months. (AGE >/= 65 and FLUSHOT6=2) |
| 9 | Don't know/Not Sure Or Refused/Missing | Respondents who did not know their age, those who refused to report their age, those who didn't know if they had a flu shot in the past 12 months, or those who refused to answer if they had a flu shot in the past 12 months, or those with missing responses. (AGE $>/=65$ and FLUSHOT6 $=7,9$, or missing or AGE $=7,9$, or missing) |
| . | Age Less Than 65 | Respondents aged 18-64. (18 </= AGE </= 64) |
|  | SAS Code: | ```IF AGE GE 65 THEN DO; IF FLUSHOT6=1 THEN _FLSHOT6=1; ELSE IF FLUSHOT6=2 THEN _FLSHOT6=2; ELSE IF FLUSHOT6 IN (.,7,9) THEN _FLSHOT6=9; END; ELSE IF AGE IN (.,7,9) THEN _FLSHOT6=9; ELSE _FLSHOT6=.;``` |


| Section 15: Immunization |  |  |
| :---: | :---: | :---: |
| _PNEUMO2 Calculated variable for adults aged 65+ who have ever had a pneumonia vaccination. _PNEUMO2 is derived from PNEUVAC3. |  |  |
| 1 | Yes | Respondents aged 65 or older who reported having a pneumonia shot. (AGE $>/=65$ and FLUSHOT3=1) |
| 2 | No | Respondents aged 65 or older who reported not having had a pneumonia shot. (AGE $>/=65$ and FLUSHOT3=2) |
| 9 | Don't know/Not Sure or Refused/Missing | Respondents who did not know their age, those who refused to report their age, those who did not know if they ever had a pneumonia shot, those who refused to answer if they had a pneumonia shot, or those with missing responses. (AGE >= 65 and PNEUVAC3=7,9, or missing or AGE $=7,9$, or missing) |
| . | Age Less Than 65 | Respondents aged 18-64. (18 < $=$ AGE < = 64) |
|  | SAS Code: | ```IF AGE GE 65 THEN DO; IF PNEUVAC3=1 THEN _PNEUMO2=1; ELSE IF PNEUVAC3=2 THEN _PNEUMO2=2; ELSE IF PNEUVAC3 IN (.,7,9) THEN _PNEUMO2=9; ELSE _PNEUMO2=.; END; ELSE IF AGE IN (.,7,9) THEN _PNEUMO2=9; ELSE _PNEUMO2=.;``` |


| Section 16: HIV/AIDS |  |  |
| :---: | :---: | :---: |
| AIDTST3 Calculated variable for adults who have ever been tested for HIV._AIDTST3 is derived from HIVTST6. |  |  |
| 1 | Yes | Respondents who reported to having been tested for HIV. (HIVTST6=1) |
| 2 | No | Respondents who did not report having been tested for HIV. (HIVTST6=2) |
| 9 | Don't know/Not Sure/ Refused | Respondents who reported they did not know if they had been tested for HIV, or those who refused to answer if they had been tested for HIV. (HIVTST6=7,9) |
| . | Not asked or missing | Respondents with missing responses for HIVTST6. (HIVTST6=missing) |
|  | SAS Code: | ```IF HIVTST6=1 THEN _AIDTST3=1; ELSE IF HIVTST6=2 THEN AIDTST3=2; ELSE IF HIVTST6 IN (7,9) THEN AIDTST3=9; ELSE IF HIVTST6=. THEN _AIDTST\overline{3}=.;``` |

