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SHAPE 2018 Adult Survey Public Use Data File User Guide

Hennepin County
Public Health

Hennepin

SHAPE 2018 Adult Data Book

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Introduction

Overview

The 2018 Adult Survey of the Health of All the Population and the Environment, or SHAPE 2018, is the latest implementation in a series of surveys collecting information on the health of Hennepin County residents and the factors that affect their health across a broad range of topics. SHAPE results help us understand how healthy residents are, examine differences in health among different communities, and understand how social factors such as income, education, and housing stability affect health. SHAPE was initiated in 1998, and has repeated the effort every four years since, including data collection iterations in 2002, 2006, 2010, and 2014. Each administration of SHAPE has been implemented by Hennepin County Public Health[1].

About SHAPE 2018

The SHAPE 2018 survey collected information on the following health topics: overall health, health care access, healthy lifestyle and behaviors, and social-environmental factors. One of the primary goals of SHAPE 2018 was to reach a representative cross-section of residents to gather generalizable data for health status and other measures at a county and 10 sub-county reporting areas.

The *SHAPE 2018 Adult Data Book*[2], represented 11,143 survey respondents, was released in July 2019. The data book reports health indicators by different geographic areas in Hennepin County, and by a number of demographic and social factors, including age, gender, LGBT self-identification, race/ethnicity, household income, educational attainment, disability status, frequent mental distress and housing instability. The data book is accessible from www.hennepin.us/shape.

The *SHAPE 2018 Adult Survey Public Use Data File*, the dataset used for SHAPE 2018 Adult Data Book, is accessible for public health researcher at www.hennepin.us/shape.

The *SHAPE 2018 Adult Survey Public Use Data File User Guide* accompanies the Pubic Use Data File and aims to provide needed information for data users.

Innovations for SHAPE 2018

A number of innovations are involved in the process of SHAPE 2018 survey design, data collection and reporting, including but may not be limited to:

- Use of sampling design for the mail survey which identified census tracts with high concentrations of people of color, low-income households and young adults 18-24. Those tracts were sampled at higher rates, giving households in those tracts a greater chance of being selected for survey participation;
- Use of an in-person data collection to reach non-respondents in addition to traditional mailed methodology. This was done in collaboration with six Hennepin County Human Service Centers, Office of Multicultural Services and NorthPoint Health and Wellness for in-person data collection;

Introduction

- Collaboration with the county's Volunteer Communities Partnership Program (VCPP). Coordinators recruited volunteers and led training of volunteers in data collection to conduct in-person surveys. A key aspect of this approach that was critical to clients completing the survey was recruiting fully engaged volunteers who represented the diverse communities where sites were located;

- Use of incentives for in-person data collection;

- More robust telephone translation assistance;

- Addition of an interpreter from the Office of Multicultural Services to the research in Public Health

- Targeted outreach to low-response areas. Mail survey returns were monitored from each of the ten sampling areas. Census tracts with low response were identified and efforts were made to engage residents and encourage them to respond to the survey through targeted marketing. Postcards featuring photos and testimonials from trusted health care professionals were mailed to sampled households in the census tracts served by either NorthPoint Health and Wellness or Hennepin Healthcare Whittier Clinic;

- Collaborate with county libraries to promote survey via social media and posters;

- Use of social media with community endorsers to promote survey;

- Additionally, strategies were used to encourage respondents with limited English proficiency.
    - An FAQ sheet was included in the materials for the mail survey, listing the first and last name of a staff person who could offer language support services using ten languages other than English

    - Survey instrument was translated into Spanish and Somali and offered at in-person data collection sites

    - In-person data collection at the Office of Multicultural Services over 6 weeks; this allowed participants to complete a survey utilizing language support if needed

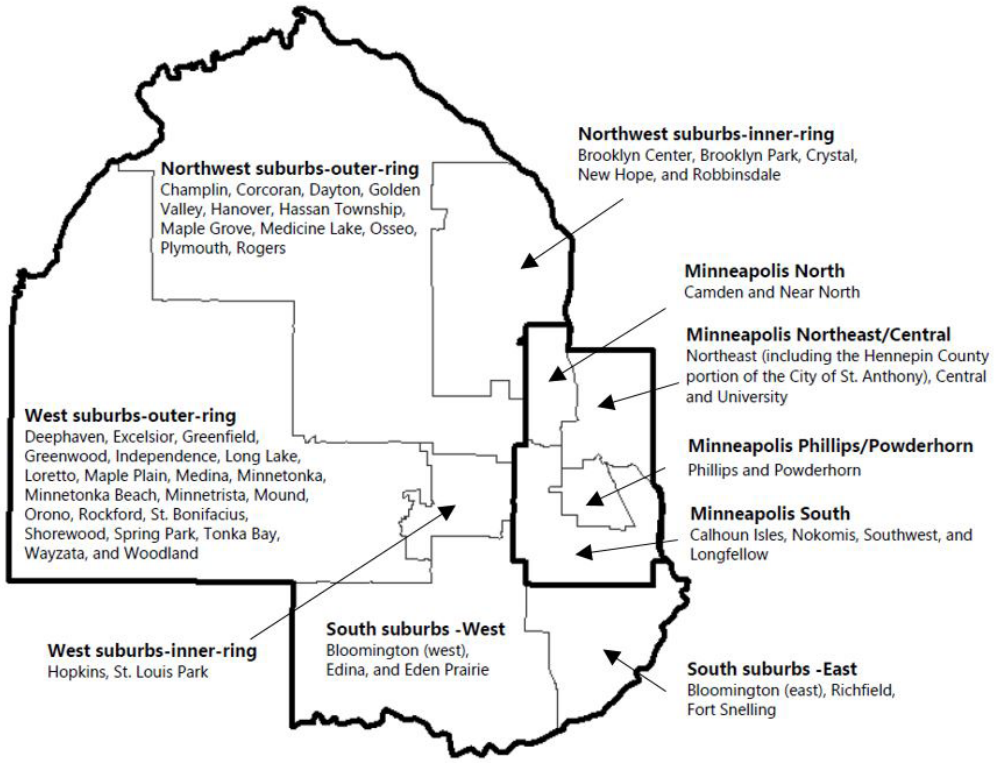
Through these efforts, the survey increased reach of populations who are generally under-represented in surveys, including young adults, populations with lower incomes or lower educational attainment, racially diverse communities, and communities for whom English is not a primary language. Findings from SHAPE 2018 provide estimates by age (including 18-24), race/ethnicity (US-born black, foreign-born black, American Indian, Asian, Southeast Asian, Hispanic/Latino, white), educational attainment and income level.

Survey methodology

Target population
The target survey population for the SHAPE 2018 was non-institutionalized adults aged 18 and older living in Hennepin County.

Primary data reporting areas
The goal of SHAPE 2018 was to gather data for health status and other measures at a county and as well as for 10 primary data reporting areas at sub-county level. Changes were made to the primary data reporting areas for SHAPE 2018 to better align geographic based reporting areas with demographic characteristics of communities within those areas. The SHAPE 2018 reporting areas are detailed in Figure 1. Due to these changes, comparing 2018 data to previous SHAPE data by geographies is not advised.

Figure 1. Geographic reporting areas in Hennepin County for the SHAPE 2018 Adult Data Book



Survey Methodology

Sampling frame and strategy

SHAPE 2018 used geographic based stratified disproportionate sampling method. The residential addresses of Hennepin County in the U.S. Postal Services' full Delivery Sequence File (DSF) was procured from a vendor and served as the sampling frame for this project. The DSF was current as of March 28, 2018. All addresses were geocoded using ArcGis 10.5[3], and assigned to one of the 22 SHAPE geographic sampling strata. The sampling proportion for each of the 22 sampling strata was determined using the following factors:

- The goal set of anticipated completed surveys for each of the 10 reporting area
- The anticipated vacancy rate for each reporting area
- The anticipated response rates for the regular, oversampled, and super sampled census tracts within each of the 10 reporting areas – higher for regular census tracts, lower for oversampled tracts

The sampling strata

The 10 reporting areas for SHAPE 2018 were used as primary sampling areas. Most of these primary sampling areas were divided into three different sampling strata (the regular, over sampled, super sampled) for a total of 22 sampling strata. The regular, oversampled, and super sampled areas were developed to increase sampling efficiency to meet the goal of the total number of completed surveys per reporting area, and to increase the chance for those populations that are usually under-represented in sampling to be selected. Census 2010 and American Community Survey 5-year estimates from 2012-2016 were used to examine various demographic and social characteristics of census tracts in Hennepin County to base sampling decisions.

- Regular sampling strata
  A census tract is assumed to be sampled at regular sampling area if they do not fall into the other two sampling strata described below.

- Over sampling strata
  A census tract is designated as oversampling area if it meets one or more of the following criteria:
  - 20% or higher of tract where head of household were from populations of color (Census 2010)
  - 20% or higher of tract where adult population were from populations of color (Census 2010)
  - 25% or higher of tract where population living under 200% of poverty (2012-2016 ACS estimates)

  Of the 299 census tracts in Hennepin County, 154 fit the criteria and were classified as over-sampled tracts. Within each of the 10 primary sampling areas, the over-sampled tracts become the over sampling stratum which was assigned a higher sampling fraction than the regular sampling stratum within the same primary sampling area.

- Super sampling strata
  A census tract will be designated as super sampling area if it meets the following two criteria:
  - 20% or higher of tract where adult population were young adults aged 18-24-year old
  - 50% or higher of tract where population living under 200% poverty or
    50% or higher of tract where adult population were from populations of color.

  A total of 15 census tracts met the above two criteria and were classified as super-sampled tracts. Four reporting areas contains super-sampled tracts, or super sampling stratum. These tracts were considered likely the hardest to reach and thus likely would have the lowest response rate. Therefore, they are sampled at a higher fraction than the over-sampled stratum within the same reporting area.

Survey Methodology

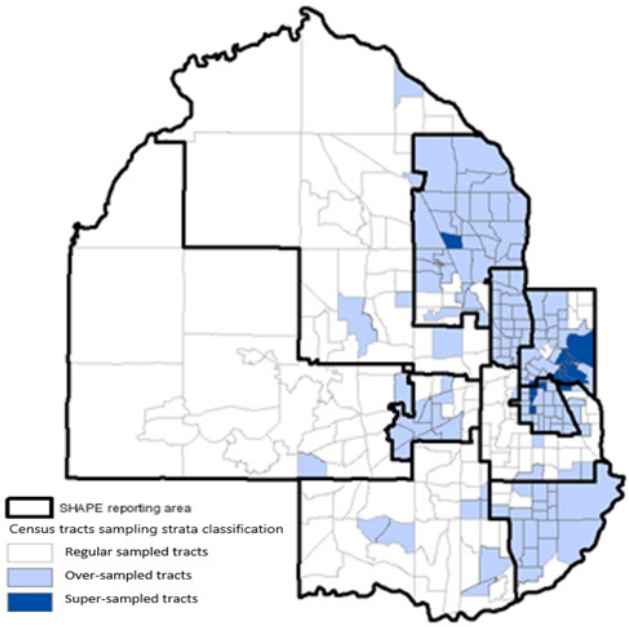
Table A describes expected survey completes, and sampling strata for each of the ten reporting areas.

Table A. SHAPE 2018 data reporting areas, expected survey completes and sampling strata

Reporting area	Expected survey completes	Number of strata by classification			Number of data analysis strata
		Regular sampling stratum	Over-sampled stratum	Super-sampled stratum	
Minneapolis North	750	0	1	0	1
Minneapolis Northeast/Central	750	1	1	1	3
Minneapolis Phillips/Powderhorn	750	0	1	1	2
Minneapolis South	750	1	1	1	3
Northwest suburbs-inner-ring	750	1	1	1	3
Northwest suburbs-outer-ring	750	1	1	0	2
West suburbs-inner-ring	750	1	1	0	2
West suburbs-outer-ring	750	1	1	0	2
South suburbs-East	750	1	1	0	2
South suburbs-West	750	1	1	0	2
Total	7500	8	10	4	22

Applying the criteria descried above, two reporting area (Minneapolis North and Minneapolis Phillips/Powder-horn) do not have regular sampling stratum. This is due to that all census tracts of these two reporting areas are all fell into oversampling or super sampling criteria. All reporting areas contains over-sampling strata, where super sampling strata only occur to for four reporting areas. Figure 2 illustrates the distribution sampling strata for each of the primary sampling area.

Figure 2. SHAPE 2018 Primary sampling areas and census tract sampling strata classification



Survey Methodology

The sample selection included two stages of random sampling. First was to randomly select households from each of the 22 sampling strata according to the sampling fractions described above. A total of 39,989 households (excluding group homes) were randomly selected.

The second stage of random sampling was to randomly select one adult within the household. This was accomplished by asking the adult with the next birthday to complete the survey.

Data collection and mail plus sample

Data collection was done via two survey modes: mail and in-person. Responses from the mail mode were used random sampling strategy and serve as base sample for SHAPE 2018 general adult population data reporting. The final data used for SHAPE 2018 general adult population data reporting used mail plus sample described below.

Mail Survey
The 39,989 households were randomly selected and were invited to participate in the SHAPE 2018 survey. The primary contact procedure involved five mailings to all eligible households. Some households in lower-response geographies received two additional mailings. Those who responded before the next mailing was prepared were removed from subsequent mailings. A small number of households were also removed from subsequent mailings upon their request or if the post office marked surveys as vacant or undeliverable

- Mailing 1 – A colorful pre-notification postcard notifying the household that they were selected to participate. Only 25% of households (9,983) in each of the 22 sampling strata were sent this first mailing.

- Mailing 2 – The household survey, a language card, pre-paid return envelope sent to all sampled households (39,989).

- Mailing 3 – A black and white postcard thanking the households who completed the survey and asking those who had not completed the survey to do so, sent to all households (39,989).

- Mailing 4 – The household survey, a language card, pre-paid return envelope sent to all remaining households that had not returned a survey, or for whom earlier mailings were returned marked as vacant, undeliverable, refusals (35,214).

- Mailing 5 – A small postcard was mailed to 7,682 households in selected geographic areas within Hennepin County that had low survey response. The postcard included a photo and testimonial of health care professionals of community clinics (NorthPoint and Whittier) in those areas urging people to complete and return the survey.

- Mailing 6- The household survey, a language card, pre-paid return envelope sent to all remaining households that had not returned a survey, or for whom earlier mailings were returned marked as vacant, undeliverable or refusals (31,493).

- Mailing 7 – A final postcard was mailed to 10,116 households in the north Minneapolis reporting area within Hennepin County that had low survey response. The postcard included a photo and testimonial of a CEO of a community clinic in those areas urging people to complete and return the survey.

Data collection and mail plus sample

Mail data collection began in May 2018 and ended in December 2018. More than 9,000 completed surveys were received by December. After data cleaning and removal of duplicates and incomplete surveys, the final sample from mail mode was 8,810.

In-person (Client) survey

The second method of data collection, new in 2018, was a non-random convenience sample at eight sites throughout the county. These eight sites included:

- Six county human service centers, which provide access to financial, social and public health services, such as access to medical, emergency, child care and food assistance, child support and homeless service;
- NorthPoint Health and Wellness Center-a Federally Qualified Health Center; and
- Office of Multicultural Services, an office connecting immigrants and refugees to county and community resources.

Planning for this effort started in 2016 and included numerous meetings with managers and staff at a variety of county agencies. The SHAPE project team collaborated with the County's Volunteer Communities Partnership Program (VCPP) coordinators early in planning to assist with data collection. Coordinators recruited volunteers to conduct a pilot test of in-person data collection and worked closely with the SHAPE 2018 team to analyze results to inform full-scale implementation. A key observation, critical to clients completing the survey, was the importance of having fully engaged volunteers who represented the communities where sites were located. Volunteer Coordinators led volunteer recruitment and onboarding of volunteers for data collection. More than 20 volunteers assisted with data collection and helped implement detailed protocols developed in consultation with SHAPE team members.

Following the review of survey research on the impact of incentives on survey participation, it was decided, a monetary incentive of $5 in the form of a Target gift card following the completion of a survey, would be distributed at in-person data collection sites. At one site, a $5 gift card to a local North Market grocery store was given in place of the Target gift card.

A pilot test for data collection was completed in the summer of 2017 with revisions to data collection protocols based on observations and findings. In-person data collection occurred at two sites simultaneously during weeks in June, July and August 2018. Data collection at NorthPoint Health and Wellness Center took place in early August 2018. Data collection at the Office of Multicultural Services was more spread out as data collection was dependent upon their staff to provide language support on the survey, and as a result lasted throughout the month of August and early September of 2018.

The SHAPE 2018 survey instrument used for in-person data collection was nearly identical to that of the mail survey. However, questions regarding sugar sweetened beverage consumption were not included as part of the shorter survey design used in consideration of participants' time. A question regarding experience with sex trafficking was added to the in-person survey only. At NorthPoint

Data collection and mail plus sample

Health and Wellness Center, three questions were added about the north Minneapolis community, at the request of NorthPoint Health and Wellness Center.

More than 3,300 surveys, averaging 400 per site, were completed. Of those, about 300 were completed in Spanish, nearly 100 in Somali, and dozens in several other languages including Oromo, Russian, Amharic, and Hmong. After data cleaning and removal of incomplete surveys, the final sample from in-person mode was 3,102.

The mail plus sample

The 8810 survey respondents from mail mode is the base sample from general adult data reporting. With over-sampling, super sampling strategies, many other outreach efforts to reach the hard-to-reach, residents of racial and ethnic minorities and young adults were still under-represented.
At the in-person survey site, respondents were asked to provide their address. Of the 3,300 surveys collected, more than 2,700 provided an address. Complete residential addresses were geocoded using ArcGIS 10.53, and were matched to addresses of sampled mail households which no survey has been retuned. Based on the level of match, in-person data were used for mail sample enhancement via either non-response conversion and sample replacement.

- Non-response (or "refusal" conversion)
  There were 205 in-person survey completes were matched by exact addresses to households that were in the mail sample who did not respond mail survey. These 205 surveys served as the "refusal" conversion for mail survey.

- Sample replacement
  There were 2,128 in-person survey completes were match to households who did not respond to the mailed survey within 200 meters, or 2 typical city blocks. Vast majority of these 2,128 surveys were from city of Minneapolis and lives within one block (within 100 meters) with matched households where no response to mail survey. These 2128 survey respondents served as nearest neighbors to replace survey non-response.

A total of 2,333 surveys from in-person mode were added to mail sample to increase survey representation of county adult population as they are either convert or replace survey non-response who are highly represented by low income, racial and ethnic minority, and youth adults. This resulted in a final dataset of 11,143 for general adult data reported. The data set is referenced as SHAPE 2018 mail plus sample

Survey response and data reporting

Survey response rate

Of these 39,989 sampled households, 9,738 completed mail surveys, excluding duplicates and incompletes, reached 8810 in the final data set. This classic mail sample was added with 2,333 cases from client surveys (In-persons) for total 11,143 surveys in the final mail plus data set.

The standard outcome formula from the American Association of Public Opinion Researchers (AAPOR)[4] for computing response rates (formula RR4) was used to determine the survey response rate for SHAPE 2018. Overall, the response rate for the mailed survey (n=8,810) was 23.8%. The response rate for mail plus sample was 29.4%.

The response rate by primary sampling areas is exhibited in Table B.

Table B. SHAPE 2018 survey completes and response rate by reporting areas*

Reporting area	Sampled households	Vacant	Completed surveys in mail plus sample	Response rate
Minneapolis North	4,840	288	1,365	30.0%
Minneapolis Northeast/Central	4,746	363	1,130	25.8%
Minneapolis Phillips/Powderhorn	4,422	318	1,246	30.4%
Minneapolis South	2,914	139	1,003	36.1%
Northwest suburbs-inner-ring	4,550	182	1,254	28.7%
Northwest suburbs-outer-ring	3,507	92	958	28.1%
West suburbs-inner-ring	3,862	223	1,064	29.2%
West suburbs-outer-ring	3,324	110	907	28.2%
South suburbs-East	4,062	182	1,108	28.6%
South suburbs-West	3,762	179	1,108	30.9%
Total	39,989	2,076	11,143	29.4%

* Rates are conservative estimates as the late "vacant" mail return and these respondents were dropped due to incompleteness or missing key demographics are not part of calculation

Who responded to the survey

The responses given by 11,143 adults in Hennepin County was used for county adult general population reporting. The distribution of the respondents from Hennepin County by selected socio-demographic factors is illustrated in Table C. These socio-demographic characteristics are the reporting categories for each of data tables published in the SHAPE 2018 Adult Data Book.

Survey response and data reporting

Table C. SHAPE 2018 mail plus sample: respondent characteristics

Geographic or socio-demographic factor	Mail mode responses N	In-person responses N	Combined total N
Hennepin County Total	8,810	2,333	11,143
Minneapolis Total	3,393	1,352	4,745
Camden, Near North	794	572	1,366
Central, Northeast, University, St. Anthony	910	220	1,130
Phillips, Powderhorn	872	374	1,246
Calhoun-Isles, Longfellow, Nokomis, Southwest	817	186	1,003
Suburban Areas Total	5,417	981	6,398
Northwest Suburbs	1,811	400	2,211
Northwest - Inner Ring	910	344	1,254
Northwest - Outer Ring	901	56	957
West suburbs	1,737	234	1,971
West – inner	899	165	1,064
West – outer	838	69	907
South suburbs	1,869	347	2,216
South – east	906	202	1,108
South – west	963	145	1,108
Age			
18-24 years	222	270	492
25-34 years	1,154	627	1,781
35-44 years	1,101	546	1,647
45-54 years	1,126	367	1,493
55-64 years	1,804	309	2,113
65-74 years	1,858	147	2,005
75 and older	1,492	49	1,541
Gender			
Male	3,167	700	3,867
Female	5,638	1,624	7,262
Transgender	53	45	98
LGBT self-identification			
LGBT self-identified	717	231	948
Not LGBT self-identified	7,814	1,731	9,545
Selected race/ethnicity			
Hispanic	207	343	550
Non-Hispanic	8,393	1,834	10,227
American Indian or Alaska Native	120	106	226
Asian or Asian American	259	108	367
Southeast Asian	97	77	174
Black or African American	522	1,176	1,698
US-born black	363	785	1,148
Foreign-born black	137	320	457
White	7,492	444	7,936

Survey response and data reporting

Geographic or socio-demographic factor	Mail mode responses N	In-person responses N	Combined total N
Household income			
< 200% of Federal Poverty Level	1,795	2,145	3,940
<100% of Federal Poverty Level	567	1,489	2,056
100-199% of Federal Poverty Level	1,174	575	1,749
≥ 200% of Federal Poverty Level	6,673	156	6,829
Educational attainment			
Less than high school	186	497	683
High school or GED	961	844	1,805
Some college	2,331	736	3,067
College degree or higher	5,281	204	5,485
Housing insecurity			
Yes	527	1,106	1,633
No	8,257	1,215	9,472
Self-reported disability			
Yes	2,386	823	3,209
No	6,364	1,471	7,835
Frequent mental distress			
Yes	910	650	1,560
No	7,717	1,540	9,257

Survey response and data reporting

Data preparation

Data preparation included data processing, data cleaning, and generating variables for key health indicators that required recoding and calculation using two or more survey items. Hennepin County Public Health took the lead in all the data preparation activities. IBM SPSS Statistics 24.[5] is the software that was used for data processing and management.

Scanned survey process

Most returned surveys, either via mail or in-person, were processed via standard protocols, including:

- Quick scan for completions, exclude mostly blank or with questionable intent.
- Batching;
- Pre-scan survey content review;
- Data scan
- Double scanning for 10% of the surveys
- Reconciliation for these 10% that were double scanned

Text data coding

Several survey questions allow respondents to enter text to describe or specify the "Other" response choice they made. These questions are:

- B1. Current health insurance
- F7. Race (MARK ALL THAT APPLY)

These text data were coded and a new variable was created to utilize the text information to either reclassify "other" into one of the listed response categories, add a new response category.

Data cleaning

Scanned mail surveys - response spill-over check

For the scanning of mail surveys, two questions that were designed to have "CHECK ALL THAT APPLY" responses, the scanner would automatically accept as many marked response bubbles as were checked. They are B1 health access and F7 Race questions. For these questions, a data scanning issue was found: the scanner picked up some survey response bubbles that were not marked. This is due to some respondents marking their response choices on the bubbles that were a little over or under the bubbles, or there were some very light stray marks close to the bubbles. Although these were considered as "OK" from the "survey pre-scan review," due to the narrow space between response bubbles on the printed survey, and the high sensitivity of the scanner, the scanner would read that the adjacent bubbles as checked. This "spill-over" effect was systematically checked for all applicable survey questions. A correction was made for any "spill-over" instances that were caught.

Data logic error check

Logic error checks were performed for all variables that contain continuous value, including healthy days (A2, A3), height and weight (A6, A7), servings of fruits and vegetables (C1 to C3), physical activity, bike and work (C5 to C8), alcohol use (C9 to C11), respondent's age, number of years living in the United States, and the number of adults and number of children living in the household.

Survey response and data reporting

Duplicated surveys

There were 775 mail surveys that were identified as duplicates, i.e., two or more surveys came from the same sampled household. A set of hierarchical criteria was developed to keep one survey from each pair. This include the item completeness in the survey, especially the most critical survey items such as age, gender, race, ethnicity and sampling strata, the survey completion date, survey modes and population priority in terms of demographic characteristics.

Missing response and survey incompletes

A total of 406 surveys were dropped since they either were missing most critical data items (age, gender, race and ethnicity, sampling strata), or had with more than one-third of survey items missing. Of them, 198 are from mail modes and 208 from In-person surveys.

In summary, of the 13,093 surveys received from both mail or in-person surveys, 1,181 were dropped due to either being a duplicate, missing critical data, survey incompleteness. This results in a data set of 11,912 survey respondents. Of 3,102 in-person survey completes, 2,333 were added to mail sample, size of 8,810, and this resulted in 11,143 surveys in the mail plus data set.

Weighting of sample data

The SHAPE 2018 survey weighting and raking methodology was developed following best practices as developed by AAPPOR[6] and CDC BRFSS[7], and in consultation with local and national statistical survey research experts. The SHAPE 2018 survey data was weighted in two steps. The steps accounted for:

- Differences in the probability that a particular person was selected; and
- Differences in the proportion of persons who completed the survey compared to population as a whole as measured by the 2010 Census.

For SHAPE 2018, as described earlier, there are two stages of random sampling that was: random selection of households based on geographic based disproportionate sampling using 22 sampling strata. Second is the random selection of an adult within that household. A person in a household with two adults in it had a higher probability of being that designated person than a person with five adults in it. To account for these differences, each respondent was given an initial equal probability weight connected with his or her sampling area, or strata, based on the ratio of the number of occupied households in that strata divided by the number of completed surveys from that strata (thus accounting for differences in response rates) multiplied by the number of adults in that person's household. The number of adults living in any given household was capped at seven for weighting purposes. This is the disproportionate sampling weight.

The disproportionate sampling weights were then normalized so that the sum of them would add up to the number of respondents in the SHAPE 2018 survey (i.e., 11,143). This now becomes the normalized disproportionate sampling weight. Once the normalized disproportionate sampling adjustment was done, an analysis was completed to see if any post-stratification adjustments were needed. In almost all population-based surveys, the profile of the respondents is different from that of the underlying population. Historically, women are more likely to complete surveys than men and older people are more likely to complete surveys than younger people.

Survey response and data reporting

For each of the implementations of SHAPE since 1998 a post-stratification adjustment was done based on the age and gender distribution within geographic areas. Since the profile of the SHAPE 2018 respondents again was older and more female than the population of the county as a whole and, most importantly, since health status and behaviors are known to differ substantially across these groups, there was a need to adjust for age and gender for each of the 10 geographic areas for which results were planned to be reported.

To accomplish the post-stratification adjustment with the SHAPE 2018 respondents, a statistical step known as "raking" was done. The raking step took the age, gender, race/ethnicity, and educational attainment percentages from the 2010 Decennial Census for Hennepin County as that standard against which the distribution of respondents of the SHAPE 2018 survey was compared.

There were six age groupings (18-29, 30-44, 45-54, 55-64, 65-79, and 80 and older), two groups for gender (i.e., Male and Female), four race/ethnicity groupings (Hispanic, non-Hispanic Asian/Asian American, non-Hispanic black/African American, and Other), and four educational attainment groupings (less than high school, high school graduate or GED, some college, and college graduate or higher).

The raking adjustment takes the percent of persons from the SHAPE 2018 respondent pool (after weighting for the equal probability of being selected) and mathematically computes the best way to adjust the cases to best match the marginal percentages of the standard population (i.e., the 2010 Decennial Census for Hennepin County). This cycle of adjustments stops when the total differences in the marginal percentages is within a predetermined tolerance of the standard population. The final values needed to reach that "close enough" fit become the weights assigned to each case.

To avoid any one person having an unduly large influence in any of the health measures for the population, the weights were capped at six. The "extra" weight (i.e., the amount greater than six that was removed) was then redistributed to the other respondents whose value after raking was less than six. This is now a capped raked weight.

All weighting factors were multiplied together to produce the final analysis weight for each completed survey. This set of geographic-centric weights are used for most analyses.

A second set of weights were created for analyses involving one of the select racial or ethnic group who live in Hennepin County. The main difference between these weights and the geographic-based weights is that the post-stratification adjustments were based on the age, gender, and educational attainment distribution for that particular racial or ethnic group rather than the adult population in the county in general. For this set, weights were calculated for analyses involving Hispanics and non-Hispanic American Indians or Alaska Natives, Asian or Asian Americans, black or African Americans, and whites.

These weights are all used when the unit of analysis is the individual (e.g., the percent of adults who smoke). Another set of weights were created for situations when the unit of analysis is the household (e.g., the percent of households where children are exposed to second-hand smoke).

Survey response and data reporting

Data Analysis

SHAPE 2018 was designed to use sample data to provide population inferences on health estimates for Hennepin county adults and 10 primary data reporting areas. In order to make statistically valid population inferences from sample data, standard errors must be computed using procedures that take into account the complex nature of the SHAPE 2018 survey design. The most commonly used software packages in health survey research that will produce appropriate standard errors are SPSS Statistics® version 13 or higher complex samples module, SAS®, SUDAAN® and STATA®[8].

The health estimates and their corresponding confidence intervals (based on standard errors) published in the SHAPE 2018 Adult Data Book were produced using STATA® 14[8]. Table D identifies the SHAPE 2018 variables needed for defining the sampling design parameters using STATA® 14.0, which include six statistical sampling weights.

Survey response and data reporting

Table D. SHAPE 2018 survey design and sampling weight variables and appropriate use

Variable name	Variable label	STATA parameter	Description and appropriate use
Barcode	Admin: SHAPE2018 Barcode printed on survey	PSU	Primary sampling unit variable
Strata22	Admin: SHAPE 2018 22 sampling strata (mail+ 11143)	Strata	Sampling strata identifier variable, contains 22 strata.
wgt_geog	Weight to be used for analyses based on geography (mail+ 11143)	pweight	This is a statistical sampling weight variable for estimates and standard errors of health indicators. Specifics include : ▪SHAPE 2018 enhanced mail sample (Mail+11143) ▪When observation unit is individual ▪Data analysis for county total, any data reporting area, and any geographic combinations such as city total or suburban Hennepin County ▪Data analysis that are not defined by the uses of the other statistical sampling weights described below that use SHAPE 2018 enhanced mail sample
wgt_re	Weight to be used for analyses based on race/ethnicity (mail+11143)(American Indian+1other race)	pweight	This is a statistical sampling weight variable for estimates and standard errors of health indicators. Specifics include : ▪SHAPE 2018 enhanced mail sample (mail+11143) ▪When observation unit is individual. ▪Data analysis for racial and ethnic groups that use any of the following race/ethnicity variables- RaceOne17New, EthRace18New, EthRace7New, EthRace6New, EthRace5, EthRace5sub. ▪Special notes for these race/ethnicity variables: (1) Hispanic or Latino ethnicity and race are mutually exclusive. If a person selfidentified with Hispanic or Latino ethnicity and also checked one or more races, he or she was classified as being Hispanic or Latino. (2) American Indian race group includes these self-identified with American Indian only as well as these self-identified with American Indian plus one other race group, while the other four race groups only include these check only one race.
wgt_geog_HH	Weight to be used for analyses based on geography, for households (mail+11143)	pweight	This is a statistical sampling weight variable for estimates and standard errors of health indicators. Specifics include : ▪SHAPE 2018 enhanced mail sample (mail+11143). ▪Data analysis for county total or any data reporting area, and any geographic combinations such as city total or suburban Hennepin County. ▪In SHAPE 2018 Adult Data Book, the second hand smoke exposure data (Table 51) used this statistical weight.

Survey response and data reporting

Variable name	Variable label	STATA parameter	Description and appropriate use
wgt_re_HH	Weight to be used for analysis based on race/ethnicity, for households (Mail+11143)(American Indian+1other race)	pweight	This is a statistical sampling weight variable for estimates and standard errors of health indicators. Specifics include : ▪SHAPE 2018 enhanced mail sample (mail+11143). ▪When observation unit is household. ▪Data analysis for racial and ethnic groups that use any of the following race/ethnicity variables- RaceOne17New, EthRace18New, EthRace7New, EthRace6New, EthRace5, EthRace5sub. ▪Special notes for these race/ethnicity variables: the same for wgt_re ▪In SHAPE 2018 Adult Data Book, the second hand smoke exposure data (Table 51) used this statistical weight.
wgt_geog_classic	Weight to be used for analyses based on geography (mail classic 8810)	pweight	This is a statistical sampling weight variable for estimates and standard errors of health indicators. Specifics include : ▪ SHAPE 2018 mail classic sample (m=8810). hen observation unit is individual. ▪ Data analysis for county total or any data reporting area, and any geographic combinations such as city total or suburban Hennepin County. ▪This weight was used to report data on sugar sweated beverage (SSB) consumption which were only asked for the mail classic sample. (Table 26 and 32 to 35)
wgt_re_classic	Weight to be used for analysis based on race/ethnicity (Mail classic 8810)(American Indian+1other race)	pweight	This is a statistical sampling weight variable for estimates and standard errors of health indicators. Specifics include : ▪ SHAPE 2018 mail classic sample(n=8810), the critical difference from the weigh wgt_re which is for mail plus (n=11143). ▪ When obervation unit is individual. ▪ Data analysis for racial and ethnic groups that use any of the following race/ethnicity variables- RaceOne17New, EthRace18New, EthRace7New, EthRace6New, EthRace5, EthRace5sub. ▪ Specical notes for these variables: the same for wgt_re ▪This weight was used to report data on sugar sweated beverage (SSB) comsuption which were only asked for the mail classic sample. (Table 26 and 32 to 35)

Public Use Data File

The SHAPE 2018 Adult Survey Public Use Data File includes the survey responses from 11,143 respondents and contains a total of 284 variables. The data file is available in SPSS Statistics (Version 24) data format, downloadable from the project website: www.hennepin.us/shape.

The SPSS data file can be read by other commonly used statistical software packages such as STATA, SUDAAN or SAS. These packages can analyze sample data and provide proper standard errors that take into account the complex nature of the SHAPE 2018 sample design.

SHAPE 2018 Adult Survey Public Use Data File Data Dictionary is attached as Appendix A.

Variables in the public use data file
The public use data file includes variables that are listed in the following order:

- **Survey design and administration (variables 1-18)**
  This section includes key variables pertaining to survey design, data administration, data processing and statistical analysis, such as primary sampling unit, sampling strata, sampling weights and survey mode, and reporting areas.

- **Original survey variables (variables 20 to 130)**
  This section includes variables for the actual responses to the survey questions. It is listed in the order how they appeared in the SHAPE 2018 adult mail survey questionnaire (see Appendix C).

  Please note that some of the original variables were replaced with "cleaned/processed variables," in data dictionary variable type column, they are classified as "Original C/P." These special cases are described below.

  Variables with data scan errors
  (1) B1 health insurance coverage questions and F7 set race/subrace questions, are "check all they apply" questions. They were scanned in as "checked" or "not checked" (0,1 value).

  (2) Data scan "spill over" errors were found, and two steps of data cleaning steps were made:
    a. Assign "missing/blank" if respondent did not check any of check boxes for the survey question;
    b. Fix the scan errors
    Details on the data scan "spill over" are documented in the technical notes (see Appendix B).

Public Use Data File

(3) The processed set of variables replace the original set, and variable label captures this nature.
For example: In the public use data file, variable B1_1 is for currently insured, employed based, is the 1st check box from a set of 10 boxes.

Variable name: B1_1

Variable label: B1_1. Currently health insurance? Employer based (add missing, fix scan-errors)(=Insure01).

Variable label ending with "(adding missing, fix scan-errors)" indicates it is a replaced variable.

Variables were scanned in as "text"

(1) There are 23 survey questions that respondents need to write in text box printed on survey to give "numeric response". For example:

F4. What is your age?

☐ Years

Respondents are not all consistent in providing numeric age number. To reduce errors via data scanning process, all these variables are scanned in as text data to keep the "originality" of survey response.

(2) These "Texted in" variables were converted into numeric variables, following in coding strategies for consistency.

(3) The text converted variables replace the "original text variables" and variable label is added a phrase to captures this. Example, in public use data file, age variable is listed as:

Variable name: F4

Variable label: What is your age?(F4_text converted).

- **New variables - key demographics (variables 132 to 169)**
This section includes key variables that identify demographic characteristics used in data reporting, including age, gender, LGBT self-identification, education, race and ethnicity, household size, household income, whether or not were born in US born and years lived in US.

- **New variables- for data reporting (variables 170 to 284)**
This section includes the new variables that were generated to meet the data reporting needs, mostly for SHAPE 2014 Adult Data Book. These new variables are either a recode of the original variable or a computed or calculated variable involving two or more original survey items.

Public Use Data File

Data dictionary

The data dictionary (see Appendix A) provides the following information for each variable:

- Variable name
  - For a question that actually appeared on the survey, the variable name starts with the section letter, followed by the question number as these appeared in the mail version of the survey.
  - For a variable that was newly created (either a recoded original variable or a computed variable), the name reflects the subject or the abbreviation of the subject that the new variable depicts.
- Variable label
  - For a question that actually appeared on the survey, the value label starts with the variable name, follow by the actual survey question as it appeared in the mail survey, or a shortened version of that survey question if it is relatively long.
  - For a variable that was newly created, the variable label will note the sources on which this new variable is based. The variables used for recoding or computation are listed at the end of the variable label in parentheses.
- Value label and default missing values
  - The value labels provide content for numeric codes.
  - The values that are defined as missing are also noted.
- Order of the variable in dataset
  The order of the variable in the dataset is printed in the column.
- Variable type
  Each variable listed in the data dictionary is classified into one of the following five variable types:
  - **Original**
    A variable that represents an actual survey question.
  - **Original C/P**
    A variable that was the cleaned (C) or processed (P) version of the original variable, in the section of "Original survey variables (variables 20 to 130)". The description is provided above.
  - **Recoded**
    A variable that was recoded from the responses of an original question. This recoded variable also reflects any data cleaning and processing that have been performed.
  - **Computed**

Public Use Data File

A variable that was computed or calculated from the responses of a combination of two or more survey questions. The new variable also reflects any data cleaning, processing that have been performed.

- **Design**
  A variable that presents a key survey design or data process feature, not a survey question asked of respondents.

- Data book table or data reporting
  This column provides notations on variables that have been used for the SHAPE 2018 Adult Data Book.

  - **Data book table (number)**
    This variable is used to report health indicators for a specific data table of Metro SHAPE 2014 data books. Three data books have been produced. Each reports the same indicators with the same number of tables and in the same order. However, each data book has a different reporting focus.

  - **Data run**
    The variable is not a measure of a health indicator but is either a key survey design variable (like primary sampling unit, sampling strata or statistical weight) needed for data run or a geographic area/region, demographic variable that is used as data reporting category.

  - **NU**
    Variable is not used to report data that have been published.

The technical notes that provide explanations necessary for the user to understand the variables are also provided in this part of data dictionary.

How to Access Public Use Data File

Access data file
The SHAPE 2018 Adult Survey Public Use Data File is available for public health researchers to conduct research and analyses which go beyond the data provided in the published reports.

To access any of the SHAPE public use data files, please email shape@hennepin.us and we will send you a link to the data files and accompanying data dictionaries.

Related notes to the public health researchers who have interest to access public use data file are:

- The downloadable version of public use data file is in IBM SPSS Statistics 24 Compressed data format.
- Please contact project team if you experienced any issue in downloading file or if you need data in other data format.

How to contact SHAPE project team
The SHAPE project team welcomes questions and suggestions. The contact information to reach SHAPE project team is:
Tel: 612-348-7416
Email: shape@hennepin.us
Fax: 612 348-3830, attention to David Johnson
Mail or visit us at:
Hennepin County Public Health
Public Health Assessment Team
HSB level 3
525 Portland Ave. S. MC963
Minneapolis, MN 55415

Limitations and potential sources of bias
SHAPE 2018 results are subject to several limitations.

- Selection bias - SHAPE 2018 results are subject to respondent self-selection bias in both the mail and in-person data collection methods. This bias occurs when a selected adult that does complete the survey and those who chose to not respond are noticeably different from those who participated. With the mail survey, a person may simply choose not to complete the survey. During in-person data collection, volunteers approached clients to ask them to complete a survey. If there were multiple people from the same household, the survey was given to the person who expressed a willingness to complete the survey. As such, the random selection of adults in a given household was not assured for the in-person data collection strategy. Additionally, clients could decline to take the survey and therefore were non-responders.

How to Access Public Use Data File

- Response rate - the response rate for the survey was 23.8 percent. Representativeness of survey respondents may be a concern. However, the response rate is similar to other general population surveys and other county level surveys recently conducted in Minnesota.

- Respondents with limited English proficiency - non-English language was under-represented. The survey was mailed to households only in English. For the in-person strategy, English, Somali, and Spanish surveys were available. If there was a need for a language outside these three languages, assistance was only possible if a translator was available. If specific translation services were not available, a person's language needs were unable to be accommodated. Additionally, despite having surveys available in Somali and Spanish, not all persons who spoke those languages were able to read and complete a survey in these languages.

- Small sample sizes - because of small sample size and/ or unreliable estimates, the prevalence of certain variables could not be reported for some reporting areas or groups. These instances are noted throughout the data tables in the data book.

- Self-report bias - SHAPE 2018 data are self-reported; therefore, information is subject to recall bias and potential for bias exists given the wording of and the order in which questions are presented.

- Generalizability - SHAPE 2018 results are generalizable to county adults who live in households with a residential address. Community members living in institutions, nursing homes, long-term care facilities, military installations, correctional institutions, and those experiencing homelessness were not represented. However, over 200 persons experiencing homeless completed the in-person survey and a subsequent analysis and reports of this population will be available summer 2019.

Overall, SHAPE 2018 provides estimates of health status, health risk behaviors, chronic conditions, disabilities, access to health care, and social-environmental conditions at a local level. Given current research, the use of the Delivery Sequence File address-based sampling frame is the best available survey sampling frame with the fewest non-coverage issues. Most of the questions used for the survey were taken or adopted from national heath surveys to facilitate comparisons between local, state, and national data. Despite its limitations, SHAPE 2018 is one of the only local sources of data available to track broad public health indicators and health conditions in the population as a whole as well as for sub geographies and sub-populations within the county.

Appendices

Appendix A
Data dictionary

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Barcode	Admin: SHAPE2018 Barcode printed on survey (mail 10-11 digits w contact letter, & client svy form)	None		1	Design	Data run	Survey design and administration	Unique identified
Contact	Admin: Mail mode survey contact	2: Contact B-1st survey mailing 4: Contact D-2nd survey mailing 6: Contact F-3st survey mailing 7: Contact G-4th survey mailing (selected MPLS area) 9: Partial barcode 88: InPerson		2	Design	NU	Survey design and administration	Survey contact
Batch	Admin: Survey processing batching number(10 each on average)	None		3	Design	NU	Survey design and administration	Data process batch
SvyMode	Admin: Survey distribution/ data collection mode	1: Household-mail 2: In person		4	Design	NU	Survey design and administration	Survey mode
SvySite	Admin: Survey distribution/data collection sites	0: Household-mail 1: HSC Mpls N 2: HSC Mpls CNE 3: HSC Mpls S 4: HSC Suburb NW 5: HSC Suburb W 6: HSC Suburb S 7: OMS/colocation 8: NorthPoinnt		5	Design	NU	Survey design and administration	Survey site
SvyForm3	Admin: Survey form, language specific used, 3gps	1: English 2: Somali 3: Spanish		6	Design	NU	Survey design and administration	Survey language
Sampling	Admin: Mail mode- 3 sampling fractions	1: Regular sample 2: Over-sampled 3: Super-sampled 8: In-person sample	8	7	Design	NU	Survey design and administration	Sampling fraction

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Strata22	Admin: SHAPE 2018 22 sampling area (mail+ 11143)	11: M Central-Oversampled 12: M Central-Super-sampled 20: M D/NE-Regular sample 21: M D/NE-Oversampled 22: M D/NE-Super-sampled 31: M N-Oversampled 40: M S-Regular sample 41: M S-Oversampled 42: M S-Super-sampled 50: Sub NW Inner-Regular sample 51: Sub NW Inner-Oversampled 52: Sub NW Inner-Super-sampled 60: Sub NW Outer-Regular sample 61: Sub NW Outer-Oversampled 70: Sub S East-Regular sample 71: Sub S East-Oversampled 80: Sub S West-Regular sample 81: Sub S West-Oversampled 90: Sub W Inner-Regular sample 91: Sub W Inner-Oversampled 100: Sub W Outer-Regular sample 101: Sub W Outer-Oversampled	999	8	Design	Data run	Survey design and administration	Sampling strata
wgt_geog	Weight to be used for analyses based on geography (mail+ 11143)	None		9	Design	Data run	Survey design and administration	Statistical weight
wgt_re	Weight to be used for analyses based on race/ethnicity (mail+11143)(American Indian+1other race)	None		10	Design	Data run	Survey design and administration	Statistical weight
wgt_geog_HH	Weight to be used for analyses based on geography, for households (mail+11143)	None		11	Design	Data run	Survey design and administration	Statistical weight
wgt_re_HH	Weight to be used for analysis based on race/ethnicity, for households (Mail+11143)(American Indian+1other race)	None		12	Design	Data run	Survey design and administration	Statistical weight
wgt_geog_classic	Weight to be used for analyses based on geography (mail classic 8810)	None		13	Design	Data run	Survey design and administration	Statistical weight
wgt_re_classic	Weight to be used for analysis based on race/ethnicity (Mail classic 8810)(American Indian+1other race)	None		14	Design	Data run	Survey design and administration	Statistical weight

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Area10	SHAPE 2018-10 reporting areas (Mail, InPerson pm+hh match)	1: M North 2: M D/NE 3: M Central 4: M South 5: S NW Inner 6: S NW Outer 7: S W Inner 8: S W Outer 9: S S East 10: S S West	88 through Highest	15	Design	Data book reporting categories See Appendix B Technical Notes for details	Survey design and administration	Data reporting area
Area2	SHAPE 2018-mpls vs suburban (Mail, InPerson pm+hh match)	1: Mpls 2: Sub HC	8, 9	16	Design	Data book reporting categories See Appendix B Technical Notes for details	Survey design and administration	Data reporting area
Area4	SHAPE 2018 4 reporting areas (mpls+3sub) (mail, InPerson pm+hh match)	1: Mpls 2: S NW 3: S West 4: S South	8, 9	17	Design	NU	Survey design and administration	Data reporting area
Suburban3	SHAPE 2018-3 suburban regions (Mail, InPerson pm+hh match)	0: Mpls 1: S NW 2: S West 3: S South	0, 9	18	Design	Data book reporting categories See Appendix B Technical Notes for details	Survey design and administration	Data reporting area
SurveyData-Section	@@@@ Original survey variables (exceptions are B1 set and F7 set variables which are replaced with processed variables)@@@@	None		19	Section divider	Section divider	Section divider	Section divider
A1	A1. In general would you say that your health is...?	1: Excellent 2: Very Good 3: Good 4: Fair 5: Poor 9: Blank 99: sysmis	9 through Highest	20	Original	NU	General health and health conditions	Overall health,Self rated health,Health Related Quality of Life (HRQOL)
A2	A2- Unhealthy physical days (A2_text converted)	996: Check paper copy 998: Text not code-able 999: Blank		21	Original C/P	NU	General health and health conditions	Overall health,Physical health,Unhealthy physical health days,Health Related Quality of Life (HRQOL)
A3	A3- Unhealthy mental days (A3_text converted)	998: Text not code-able 999: Blank		22	Original C/P	NU	General health and health conditions	Overall health,Mental health,Unhealthy mental health days,Health Related Quality of Life (HRQOL)

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
A4a	A4a. During the past 2 weeks, how often have you been bothered by: having little interest or pleasure in doing things	1: Not at all 2: Several days 3: More than half the days 4: Nearly every day 9: Blank 99: sysmis	9 through Highest	23	Original	NU	General health and health conditions	Mental health,PHQ-2,Patient History Questionnaire-2,Major depressive episode,Major depressive disorder,Depression screener,High risk depression
A4b	A4b. During the past 2 weeks, how often have you been bothered by: feeling down, depressed or hopeless	1: Not at all 2: Several days 3: More than half the days 4: Nearly every day 9: Blank 99: sysmis	9 through Highest	24	Original	NU	General health and health conditions	Mental health,PHQ-2,Patient History Questionnaire-2,Major depressive episode,Major depressive disorder,Depression screener,High risk depression
A5a	A5a. Have you ever been told by a doctor, nurse, or oth hlth prof that you hadâ€¦? Hypertension, also called HBP	1: Yes 2: Yes, but only during pregnancy 3: Borderline high or pre-hypertension 4: No 9: Blank 99: sysmis	9 through Highest	25	Original	NU	General health and health conditions	Hypertension,Hypertension - ever had,Borderline hypertension,Pre-hypertension,High blood pressure
A5b	A5b. Have you ever been told by a doctor, nurse, or oth hlth prof that you hadâ€¦? Diabetes or sugar disease	1: Yes 2: Yes, but only during pregnancy 3: Pre- or borderline diabetes 4: No 9: Blank 99: sysmis	9 through Highest	26	Original	NU	General health and health conditions	Diabetes,Diabetes - ever had,Borderline diabetes,Pre-diabetes,Sugar disease
A6_ft	A6_ft. How tall are you without shoes? Feet(A6_ft_text converted)	998: Text not code-able 999: Blank		27	Original C/P	NU	General health and health conditions	Body Mass Index,BMI (Body Mass Index), Weight,Obese, Overweight, Normal weight,Underweight
A6_in	A6_in. How tall are you without shoes? Inches(A6_in_text converted)	996: Text cases to check 998: Text not code-able 999: Blank		28	Original C/P	NU	General health and health conditions	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
A6_cm	A6_cm. How tall are you without shoes? Centimeters(A6_cm_text converted)	996: Text cases to check 998: Text not code-able 999: Blank		29	Original C/P	NU	General health and health conditions	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
A7_lb	A7_lb. How much do you weight without shoes?-Pounds(A7_lb_text converted)	9996: Text cases to check 9997: Text not code-able 9999: Blank		30	Original C/P	NU	General health and health conditions	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
A7_kg	A7_kg. How much do you weight without shoes?-Kilograms (A7_kg_text converted)	9996: Text ccases to check 9997: Text not code-able 9999: Blank		31	Original C/P	NU	General health and health conditions	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
A8	A8. Are you limited in any activities because of physical, mental or emotional problems?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	32	Original	NU	General health and health conditions	Activity limitation,Disability
A9	A9. Because of any impairment or health problem, do you need help from another person with personal care needs such as ..? (ADL)	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	33	Original	NU	General health and health conditions	Activities of daily living (ADL),Activity limitation,Disability,Functional limitation
A10	A10. Because of any impairment of health problem, do you need help from another person in handling routine needs such as...? (IADL)	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	34	Original	NU	General health and health conditions	Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation
B1_1	B1_1. Currently health insurance? Employer based (add missing, fix scan-errors) (=Insure01)	0: Not checked 1: Checked 9: Blank on all B1 list		35	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverage,Privately insured
B1_2	B1_2. Currently health insurance? Self insured (add missing, fix scan-errors) (=Insure02)	0: Not checked 1: Checked 9: Blank on all B1 list		36	Original C/P	NU	Access to health care	Insurance coverage,Health insurance, current coverage
B1_3	B1_3. Currently health insurance? Indian/ Tribal health service (add missing, fix scan-errors)(=Insure03)	0: Not checked 1: Checked 9: Blank on all B1 list		37	Original C/P	NU	Access to health care	Insurance coverage,Health insurance, current coverage
B1_4	B1_4. Currently health insurance? Medicare (add missing, fix scan-errors)(=Insure04)	0: Not checked 1: Checked 9: Blank on all B1 list		38	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverage
B1_5	B1_5. Currently health insurance? Medicaid, MA or PMAP (add missing, fix scan-errors) (=Insure05)	0: Not checked 1: Checked 9: Blank on all B1 list		39	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverage
B1_6	B1_6. Currently health insurance? MinnesotaCare (add missing, fix scan-errors) (=Insure06)	0: Not checked 1: Checked 9: Blank on all B1 list		40	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverage,
B1_7	B1_7. Currently health insurance? Insurance via Mnsure (add missing, fix scan-errors) (=Insure07)	0: Not checked 1: Checked 9: Blank on all B1 list		41	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverage
B1_8	B1_8. Currently health insurance? CHAMPUS, TRICARE, Veterans' benefits (add missing, fix scan-errors)(=Insure08)	0: Not checked 1: Checked 9: Blank on all B1 list		42	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverage
B1_9	B1_9. Currently health insurance? Other coverage(add missing, fix scan-errors) (=Inusre09)	0: Not checked 1: Checked 9: Blank on all B1 list		43	Original C/P	NU	Access to health care	Insurance coverage,Health insurance - current coverag
B1_9_text	B1_9. Currently health insurance? Other health insurance or coverage (specifytext)	None		44	Original	NU	Access to health care	Insurance coverage,Health insurance - current coverage
B1_10	B1_10. Currently health insurance? No coverage(add missing, fix scan-errors) (=Inusre010)	0: Not checked 1: Checked 9: Blank on all B1 list		45	Original	NU	Access to health care	Insurance coverage,Health insurance - current coverage,Uninsured

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
B2	B2. During past 12 months did you have health insurance for the entire year, only part of the year or were not insured for the entire year?	1: Insured the entire year 2: Insured only part of the year 3: Not insured for the entire year 9: Blank 99: sysmis	9 through Highest	46	Original	NU	Access to health care	Insurance coverage,Health insurance - 12 month coverage,Uninsured - Ever during the year,Health access - coverage
B3	B3. During past 12 months, how difficult has it been to pay for health insurance premiums, co-pays, and deductibles?	1: Very difficult 2: Somewhat difficult 3: Not too difficult 4: Not at all difficult 5: Not applicable 9: Blank 99: sysmis	9 through Highest	47	Original	NU	Access to health care	Insurance coverage,Health insurance - difficulty paying for,Health access - barrier
B4	B4. During past 12 months, have you seen a doctor, nurse, or other health professional for your own health?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	48	Original	NU	Access to health care	Medical care,Medical care - sought care in last 12 months
B5	B5. During past 12 months, have you seen a psychiatristâ€¦oth mental hlth prof for your own health?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	49	Original	NU	Access to health care	Mental health,Mental health - sought mental health care in last 12 months
B6	B6. During past 12 months, needed medical care?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	50	Original	NU	Access to health care	Physical health,Medical care need
B7	B7. Did you delay or not get the care you thought you needed?	1: Yes 2: No 8: Not applicable 9: Blank 99: sysmis	9 through Highest	51	Original	NU	Access to health care	Unmet health care need-medical, Delayed health care need-medical, Unment health care need, Delayed health care need, Health access-barrier
B8	B8. Was that because of cost or lack of insurance?Â	1: Yes 2: No 8: Not applicable 9: Blank 99: sysmis	9 through Highest	52	Original	NU	Access to health care	Unmet medical care need due to cost,Unmet medical care need due to coverage,Delayed medical care need due to cost,Delayed medical care need due to coverage,Health access - barrier
B9	B9. During past 12 months, needed mental health care...	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	53	Original	NU	Access to health care	Mental health,Care need-Stress,-Care need-Depression,Care need-Emotional problems,Care need-Worrying,Care need-Troubling thoughts
B10	B10. Did you delay or not get the care you thought you needed?	1: Yes 2: No 8: Not applicable 9: Blank 99: sysmis	9 through Highest	54	Original	NU	Access to health care	Unmet health care need-mental, Delayed health care need-mental, Unmet mental health care need, Delayed mental care need, Health access-barrier

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
B11	B11. Was that because of cost or lack of insurance?Â	1: Yes 2: No 8: Not applicable 9: Blank 99: sysmis	9 through Highest	55	Original	NU	Access to health care	Unmet mental health care need due to cost, Unmet mental health care need due to coverage,Delayed mental health care need due to cost,Delayed mental health care need due to coverage,Health access - barrier
B12	B12. When you are sick or need medical care, where do you usually go?	1: Doctor's office ot clinic 2: Hospital emergency room 3: Urgent care 4: Clinic located in a drug or grocery store 5: No usual place 9: Blank 99: sysmis	9 through Highest	56	Original	NU	Access to health care	Regular place of care,Health access
B13	B13. During past 12 months, did you skip doses, take smaller amount or didnâ€™t fill a prescription because of cost?	1: Yes 2: No 3: I was not prescribed any medication 9: Blank 99: sysmis	9 through Highest	57	Original	NU	Access to health care	Prescription medications,Prescription medications - skipped doses due to cost,Poor medication adherence due to cost,Medication insecurity
B14	B14. How long has it been since you last visited a dentist or dental clinic for any reason?	1: Within the past year 2: Within the past 2 years 3: Within the past 5 years 4: 5 or more years ago 5: Never 9: Blank 99: sysmis	9 through Highest	58	Original	NU	Access to health care	Dental care,Last dental visit,Preventive care - dental
B15	B15. During past 12 months, how often did your healthcare providers tell or give you information...that was easy to understand?	1: Always 2: Most of the time 3: Some of the time 4: None of the time 5: I did not see any healthcare provider 9: Blank 99: sysmis	9 through Highest	59	Original	NU	Access to health care	Health care information,Health information,Health literacy,Health communication,Plain language
B16	B16. During past 12 months, how often were you treated with respect by your health care providers?	1: Always 2: Most of the time 3: Some of the time 4: None of the time 5: I did not see any healthcare provider 9: Blank 99: sysmis	9 through Highest	60	Original	NU	Access to health care	Health care provider,Treated with respect,Patient-provider relationship,Discrimination in health care settings,Unfair treatment in health care settings
C1	C1. How many servings of vegetables did you have yesterday?(C1_text all value, converted)	996: Unquantifiable/likely>=1 998: Text not relevant 999: Blank/DK	800.00 through Highest	61	Original C/P	NU	Healthy lifestyles and behaviors	Vegetables,Diet - servings of vegetables,Nutrition,Dietary behavior
C2	C2. How many servings of fruit did you have yesterday?(C2_text all value, converted)	996: Unquantifiable(likely>=1) 998: Text irrelevant 999: Blank/DK	800.00 through Highest	62	Original C/P	NU	Healthy lifestyles and behaviors	Fruits,Diet - servings of fruit,Nutrition,Dietary behavior

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
C3	C3. How many servings of 100% fruit juice did you have yesterday? (text all value, converted)	996: Unquantifiable/likely>=1 998: Text irrelevant 999: Blank/DK	800.00 through Highest	63	Original C/P	NU	Healthy lifestyles and behaviors	Fruit juice,Diet - servings of fruit juice,Nutrition,Dietary behavior
C4	C4. During the past 30 days, other than your regular job, did you participate in any physical activity or exerciseâ€¦.?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	64	Original	NU	Healthy lifestyles and behaviors	Physical activity,Physical activity - leisure time,Leisure time physical activity,Exercise
C5	C5. During an average week, other than regular job, how many days do you get >=30min moderate physical activity (C5_ text, converted)	800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text not code-able 999: Blank		65	Original C/P	NU	Healthy lifestyles and behaviors	Moderate physical activity,Physical activity, moderate,Exercise
C6	C6. During an average week, other than regular job, how many days do you get >=20min vigorous physical activity (C6_ text, converted)	800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text not code-able 999: Blank		66	Original C/P	NU	Healthy lifestyles and behaviors	Vigorous physical activity,-Physical activity, vigorous,Exercise,Highly active
C7	C7. During an average week, how many days to you WALK to get to and from places?(text converted)	995: Invalid range (>7 days) 996: Unquantifiable(Biked some) 998: Invalid/Unquntifiable 999: Blank/Unknown	800.00 through Highest	67	Original C/P	NU	Healthy lifestyles and behaviors	Walk,Walk to destination,Active living
C8	C8. During an average week, how many days to you BIKE to get to and from places for exercise or recreation?(text converted)	None	800.00 through Highest	68	Original C/P	NU	Healthy lifestyles and behaviors	Bike,Bike for exercise or recreation,Active living
C9_DrkDay	C9. During past 30 days, on how many days did you have at least one drink of any alcoholic beverage?(C9_text convert, verify)	96: Drink,days uk 97: text uncode-able 99: Blank 999: check &verify		69	Original C/P	NU	Healthy lifestyles and behaviors	Alcohol use,Alcohol use - drinking days
C10_DrkNum	C10. During past 30 days, on the days when you drank, about how many drinks did you have on average?(C10_text convert, verify)	995: Drink too many 996: Drink, num uk 997: Text uncode-able 999: Blank 9999: Check &verify		70	Original C/P	NU	Healthy lifestyles and behaviors	Alcohol use,Alcohol use - drinking amount
C11_BingeFemale	C11. ..how many times in past 30 days did you have >=4 drinks on one occasion? for female(C11_female_text convert, verify)	96: Binge, num uk 97: Text uncode-able 99: Blank 999: Check &verify		71	Original C/P	NU	Healthy lifestyles and behaviors	Alcohol use,Binge drinking,-Excessive drinking,Problem drinking
C11_BingeMale	C11. ..how many times in past 30 days did you have >=5 drinks on one occasion? for male(C11_mle_text convert, verify)	60: 60 or lost count, Many 96: Binge, num uk 97: Text uncode-able 99: Blank 999: check &verify		72	Original C/P	NU	Healthy lifestyles and behaviors	Alcohol use,Binge drinking,-Excessive drinking,Problem drinking

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
C12	C12. Have you smoked at least 100 cigarettes in your entire life?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	73	Original	NU	Healthy lifestyles and behaviors	Smoking,Tobacco,Cigarette use
C13	C13. Do you now smoke cigarettesâ€¦?	1: Every day 2: Some days 3: Not at all 8: Not applicable 9: Blank 99: sysmis	9 through Highest	74	Original	NU	Healthy lifestyles and behaviors	Smoking,Tobacco,Cigarette use,Cigarette use - every day smoker,Cigarette use - some day smoker,Cigarette use - former smoker,Cigarette use - never smoked
C14	C14. Is your usual cigarette brank menthol or non-menthol?	1: Menthol 2: Non-menthol 3: No usual brand 4: I don't smoke cigrettes 8: Not applicable 9: Blank 99: sysmis	9 through Highest	75	Original	NU	Healthy lifestyles and behaviors	Smoking,Tobacco,Menthol cigarettes,Menthol cigarettes - current use,Usual cigarette brand
C15	C15. During past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?	1: Yes 2: No 3: I don't smoke cigrettes 8: Not applicable 9: Blank 99: sysmis	9 through Highest	76	Original	NU	Healthy lifestyles and behaviors	Smoking cessation,Quit smoking,Quit a day
C16	C16. During past 12 months have you used other tobacco productsâ€¦?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	77	Original	NU	Healthy lifestyles and behaviors	Tobacco,Other tobacco products
C17	C17. Does anyone, including yourself, smoke regularly inside your home?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	78	Original	NU	Healthy lifestyles and behaviors	Smoking,Tobacco,ETS - inside your home,Environmental tobacco smoke (ETS),Secondhand smoke (SHS)
C18	C18. Do you currently use electronic cigarettes, such as e-cigarettes, e-hookahs, or vaping pens?	1: Every day 2: Some days 3: Used to, but not now 4: Never 9: Blank 99: sysmis	9 through Highest	79	Original	NU	Healthy lifestyles and behaviors	Electronic cigarette,E-Cig,Electronic cigarette - current use,Electronic cigarette - ever use
D1	D1. During past 30 day, about how often do you feel so sad that nothing could cheer you up?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	80	Original	NU	How you feel	Mental health,Mental health - feeling so sad,Non-specific psychological distress

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
D2	D2. During past 30 day, about how often do you feel nervous?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	81	Original	NU	How you feel	Mental health,Mental health - feeling nervous,Non-specific psychological distress
D3	D3. During past 30 day, about how often do you feel restless fidgety that you couldn't sit in still?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	82	Original	NU	How you feel	Mental health,Mental health - feeling restless or fid-gety,Non-specific psychological distress
D4	D4. During past 30 day, about how often do you feel hopeless?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	83	Original	NU	How you feel	Mental health,Mental health - feeling hopeless,Non-specific psychological distress
D5	D5. During past 30 day, about how often do you feel that everything is an effort?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	84	Original	NU	How you feel	Mental health,Mental health - feeling everything was an effort,Non-specific psychological distress
D6	D6. During past 30 day, about how often do you feel worthless?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	85	Original	NU	How you feel	Mental health,Mental health - feeling worthless,Non-specific psychological distress
D7	D7. During past 30 days (stress meansâ€¦) how often have you felt this kind of stress?	1: None of the time 2: A little of the time 3: Some of the time 4: Most of the time 5: All of the time 9: Blank 99: sysmis	9 through Highest	86	Original	NU	How you feel	Stress,Mental health

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
E1	E1. How often are you involved in school, community, or neighborhood activities?	1: Weekly 2: Monthly 3: Several times a year 4: About once a year 5: Less often than yearly 6: Never 9: Blank 99: sysmis	9 through Highest	87	Original	NU	About your community	Community involvement,Community connectedness
E2	E2. How often do you get the social and emotional support you needed?	1: Always 2: Usually 3: Sometimes 4: Rarely 5: Never 9: Blank 99: sysmis	9 through Highest	88	Original	NU	About your community	Social support,Emotional support,Community connectedness
E3	E3. How often do you feel isolated from others?	1: Always 2: Usually 3: Sometimes 4: Rarely 5: Never 9: Blank 99: sysmis	9 through Highest	89	Original	NU	About your community	Isolated,Community connectedness
E4	E4. How much do you agree or disagree: This is a good community to raise children in.	1: Strongly agree 2: Somewhat agree 3: Somewhat disagree 4: Strongly disagree 9: Blank 99: sysmis	9 through Highest	90	Original	NU	About your community	Community,Good community to raise children,Social cohesion
E5	E5. In general, how safe from crime do you consider your neighborhood to be?	1: Very safe 2: Somewhat safe 3: Somewhat unsafe 4: Not at all safe 9: Blank 99: sysmis	9 through Highest	91	Original	NU	About your community	Neighborhood safety,Safety, crime
E6	E6. During past 12 months, have you or anyone in your household received MFIP, WIC or food support services?	1: Yes 2: No 3: Don't Know 9: Blank 99: sysmis	9 through Highest	92	Original	NU	About your community	Government help received; Public assistance received
E7	E7. During past 12 months, how often did you worry that your food would run out before you had money to buy more?	1: Often 2: Sometimes 3: Rarely 4: Never 9: Blank	9 through Highest	93	Original	NU	About your community	Food insecurity,Worry food run out
E8	E8. During past 12 months, did you or your family miss or delay a rent or mortgage payment because you did not have enough money?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	94	Original	NU	About your community	Housing insecurity,Missed rent or mortgage

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
E9	E9. During past 12 months, how often have you stayed in a shelter orâ€¦ because you had no place to stay?	1: Never 2: Once 3: Twice 4: Three or more times 9: Blank 99: sysmis	9 through Highest	95	Original	NU	About your community	Housing insecurity,Homelessness
E10	E10. During past 12 months, how often did lack of transportation keep you from getting places where you needed to go, such asâ€¦?	1: Often 2: Sometimes 3: Rarely 4: Never 9: Blank 99: sysmis	9 through Highest	96	Original	NU	About your community	Transportation insecurity,Transportation insecurity & health care
E11	E11. How often are you in a situation where you feel unaccepted because of your race, culture, religious or immigration status?	1: At least once a week 2: Once or twice a month 3: A few times a year 4: Once a year or less often 5: Never 9: Blank 99: sysmis	9 through Highest	97	Original	NU	About your community	Unaccepted,Intolerance,Discrimination,Discrimination due to race,Cultural intolerance,Discrimination due to culture background,Discrimination due to religion or belief,Discrimination due to immigration status
E12	E12. How often are you in a situation where you feel unaccepted because of your sexual orientation or gender identity?	1: At least once a week 2: Once or twice a month 3: A few times a year 4: Once a year or less often 5: Never 9: Blank 99: sysmis	9 through Highest	98	Original	NU	About your community	Unaccepted,Intolerance, Discrimination, Discrimination due to sexual orientation, Discrimination due to gender identify, Discrimination due to being LGBT, Discrimination, SOGI
F1	F1. Are you (gender)?	1: Male 2: Female 9: Blank 99: sysmis	9 through Highest	99	Original	NU	About you	Demographic, gender, sex
F2	F2. Do you consider yourself to be transgender?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	100	Original	NU	About you	Demographic, gender identity, LGBT self-identification
F3	F3. Don you consider yourself (LGBT)?	1: Heteosexual or straight 2: Lesbian or gay 3: Bisexual 9: Blank 99: sysmis	9, 99	101	Original	NU	About you	Demographic, sexual orientation, gender identity, LGBT self-identification
F4	F4: What is your age (F4_text converted)	854: Boomer age 54-74 865: text-senior 997: Text-other 998: Text N/A 999: 0/Blank/DK		102	Original C/P	NU	About you	Demographic, age

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
F5	F5. What is the highest grade or year of school you have completed?	1: Less than high school 2: High school graduate or GED 3: Some college, associate's degree or vocational/technical/business school 4: Bachelor's degree or higher 9: Blank 99: sysmis	9 through Highest	103	Original	NU	About you	demographic, education
F6	F6. Are you Hispanic or Latino/a?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	104	Original	NU	About you	Demographic, race, ethnicity, cultural group
F7_white	F7_1. Which of following do you consider yourself? White (add missing, fix scan-errors)(=RWhiteY)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		105	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_black	F7_2. Which of following do you consider yourself? Black/AA (add missing, fix scan-errors)(=RBlackY)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		106	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_black1	F7_2a. Which of following do you consider yourself? Black/AA- African American (add missing, fix scan-errors)(=RBlack1Y)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		107	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_black2	F7_2b. Which of following do you consider yourself? Black/AA- East Africa (add missing, fix scan-errors)(=RBlack1Y)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		108	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_black3	F7_2c. Which of following do you consider yourself? Black/AA- West Africa (add missing, fix scan-errors)(=RBlack3Y)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		109	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_black4	F7_2d. Which of following do you consider yourself? Black/AA- Other(add missing, fix scan-errors)(=RBlack4Y)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		110	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_black4_text	F7_2d. Which of following do you consider yourself? Black/AA- Other(specify text)	None		111	Original	NU	About you	Demographic, race, ethnicity, cultural group
F7_asian	F7_3. Which of following do you consider yourself? Asian or Asian American (add missing, fix scan-errors)(=RAsianY)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		112	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_asian1	F7_3a. Which of following do you consider yourself? Asian or Asian American- SEA (add missing, fix scan-errors)(=RAsian1Y)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		113	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
F7_asian2	F7_3b. Which of following do you consider yourself? Asian or Asian American- Other (add missing, fix scan-errors)(=RAsian2Y)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		114	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_asian2_text	F7_3b. Which of following do you consider yourself? Asian or Asian American- Other (specify text)	None		115	Original	NU	About you	Demographic, race, ethnicity, cultural group
F7_native	F7_4. Which of following do you consider yourself? American Indian or Alaska Native (add missing, fix scan-errors)(=RNativeY)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		116	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_nhpi	F7_5. Which of following do you consider yourself? Native Hawaiian or other Pacific Islander (add missing, fix scan-errors) (=RNHPIY)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		117	Original C/P	NU	About you	Demographic, race, ethnicity, cultural group
F7_other	F7_6. Which of following do you consider yourself? Other (w scanning errors)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		118	Original	NU	About you	Demographic, race, ethnicity, cultural group
F7_other_text	F7_6. Which of following do you consider yourself? Other (specify text)	None		119	Original	NU	About you	Demographic, race, ethnicity, cultural group
F8	F8. Please tell us your annual household income in 2017 from all sources before taxes	1: $10,000 or less 2: $10,001-$15,000 3: $15,001-$24,000 4: $24,001-$32,000 5: $32,001-$41,000 6: $41,001-$49,000 7: $49,001-$58,000 8: $58,001-$66,000 9: $66,001-$74,000 10: $74,001 or more 99: Blank 999: sysmis	99 through Highest	120	Original	NU	About you	Demographic, household income
F9_Adult	F9. How many adults aged 18 and older (including yourself) live in your household?(text converted)	98: Text not code-able 99: Blank		121	Original C/P	NU	About you	Demographic, household size
F9_Child05	F9. How many children age 0-5 live in your household?(text converted)	98: Text not code-able 99: Blank		122	Original C/P	NU	About you	Demographic, household size, household with children
F9_Child617	F9. How many children age 6-17live in your household?(text converted)	98: Text not code-able 99: Blank		123	Original C/P	NU	About you	Demographic, household size, household with children
F10	F10. Were you born in the United States?	1: Yes 2: No 9: Blank 99: sysmis	9 through Highest	124	Original	NU	About you	Demographic, U.S. born
F11	F11. How many years have you lived in the United States?(text Converted)	0.5: Less than 1 year 997: All my life 998: Text not code-able 999: Blank	800.0 through Highest	125	Original	NU	About you	Demographic, years in U.S.

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
F12	F12. Are you currently.. (marital status)?	1: Married or living with a partner in a marriage-like relationship 2: Separated, divorced or widowed 3: Never married 9: Blank 99: sysmis	9 through Highest	126	Original	NU	About you	Demographic, marital status
F13a	F13a. How often did you drinkâ€¦in past week? Fruit drinks(Mail only)	1: Never or<1 time per week 2: 1 time per week 3: 2-4 times per week 4: 5-6 times per week 5: 1 time per day 6: 2-3 times per day 7: 4+times per day 8: Inperson mode- not aksed 9: Blank 99: sysmis	8 through Highest	127	Original	NU	About you	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Sports drink intake
F13b	F13b. How often did you drinkâ€¦in past week? Sport drinks (Mail only)	1: Never or<1 time per week 2: 1 time per week 3: 2-4 times per week 4: 5-6 times per week 5: 1 time per day 6: 2-3 times per day 7: 4+times per day 8: Inperson mode- not aksed 9: Blank 99: sysmis	8 through Highest	128	Original	NU	About you	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Pop intake,Soda intake
F13c	F13c. How often did you drinkâ€¦in past week? Regular sod or pop (Mail only)	1: Never or<1 time per week 2: 1 time per week 3: 2-4 times per week 4: 5-6 times per week 5: 1 time per day 6: 2-3 times per day 7: 4+times per day 8: Inperson mode- not aksed 9: Blank 99: sysmis	8 through Highest	129	Original	NU	About you	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Energy drinks intake
F13d	F13d. How often did you drinkâ€¦in past week? Energy drinks/drinks usually have caffeine	1: Never or<1 time per week 2: 1 time per week 3: 2-4 times per week 4: 5-6 times per week 5: 1 time per day 6: 2-3 times per day 7: 4+times per day 8: Inperson mode- not aksed 9: Blank 99: sysmis	8 through Highest	130	Original	NU	About you	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Energy drinks intake
NewVarSection	@@@@ Recoded, calc ulated variables @@@@@@	Section devider		131	Section divider	Section divider	Section divider	Section divider

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Age	Demo: What is your age (F4_text converted, imputed)	854: Boomer age 54-74 865: >=65 text-senior/insure4 impute 888: Invalid range (<18 or >115) 997: Text-other 998: Text N/A 999: 0/Blank/DK		132	Computed	NU	Key demographic variables for data reporting	Demographic, age
AgeGp7	Demo: age in 7 groups (Age, 865 not used)	1: 18-24 2: 25-34 3: 35-44 4: 45-54 5: 55-64 6: 65-74 7: 75-115 865: >=65 likely(text/insure4 impute) 888: Age range invalid 999: DK,NA,Blank	80 through Highest	133	Computed	Data book reporting categories See Appendix C Technical Notes for details	Key demographic variables for data reporting	Demographic, age
Gender	Demo: Are you (gender, imputed)	1: Male 2: Female 9: Blank	7 through Highest	134	Computed	Data book reporting categories See Appendix C Technical Notes for details	Key demographic variables for data reporting	Demographic, gender
LGB3	Demo: Do you consider yourself to be...(3 categories) ?(F3)	1: Heterosexual or straight 2: Lesbian or gay 3: Bisexual 9: Blank	9	135	Recoded	NU	Key demographic variables for data reporting	LGBT,SOGI,Lesbian,Gay,Bisexual,Transgender,Sexual orientation,Gender identity
LGBTany	Demo: LGBT identity- either gay, lesbian, bisexual or trans (LGBT)	0: Non-LGBT 1: LGBT 9: Blank	9 through Highest	136	Computed	Table 73, Data book reporting categories See Appendix C Technical Notes for details	Key demographic variables for data reporting	LGBT,SOGI,Lesbian,Gay,Bisexual,Transgender,Sexual orientation,Gender identity
Edu4	Demo: Highest grade or year of school completed-4gp(F5)	1: <HS 2: HS/GED 3: Some college 4: College &+ 9: Blank	9	137	Recoded	Data book reporting categories See Appendix C Technical Notes for details	Key demographic variables for data reporting	demographic, education
Hispanic	EthRace: Hispanic or Latino/a (F6 race_gps)	0: No 1: Yes 9: Blank on Both F6&F7		138	Computed	Nu	Key demographic variables for data reporting	demographic, ethnicity, cultural group

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
RWhite	Race: White (F7: fixws missing & scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		139	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RBlack	Race: Black/African Am (F7: fixws missing & scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		140	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RBlack1	Race: Black/African Am-African American (F7: fixws missing & scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		141	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RBlack2	Race: Black/African Am-East African (F7: fixws missing & scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		142	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RBlack3	Race: Black/African Am-West African (F7: fixws missing & scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		143	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RBlack4	Race: Black/African Am-Other (F7: fixws missing & scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		144	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RBlack4_text	Race text coding: Black other, text entered (fix illogical errors)	None		145	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RAsian	Race: Asian/Asian Am (fix mis scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		146	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RAsian1	Race: Asian/Asian Am-SEA (fix mis scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		147	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RAsian2	Race: Asian/Asian Am-Other (fix mis scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		148	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RAsian2_text	Race text coding: Asian other, text entered (fix illogical errors)	None		149	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RNative	Race: Am Indian/Alaska Native (fix mis scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		150	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
RNhpi	Race: Native Hawaiian/Pacific Islander (fix mis scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		151	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
ROther	Race: Other (fix mis scan illogical error)	0: Not checked 1: Checked 9: Blank all items 99: sysmis		152	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
ROther_text	Race text coding: Other, text entered (fix illogical errors)	None		153	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
RaceOne-17New	EthRace: Detailed groups, Am Indian/Native(1/1+1 other) (RaceOne17 RNativePair)	10: White 21: Black/Afri Am-African Ame 22: Black/Afri Am-East African 23: Black/Afri Am-West African 24: Black/Afri Am-Black, other 25: Black/Afri Am-NonSpecific 31: Asian/Asian Am-SEA 32: Asian/Asian Am-other 33: Asian/Asian Am-non-specific 40: Am Indian, Alaska Native plus (native or native+ one other) 50: NHPI 60: Bi/Multi racial 70: Other 71: Other,nonHispanic 72: Other,Hispanic 73: Other, text uncodable 74: Other, no text entered 99: F7 all Blank		154	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
EthRace18New	EthRace: Race & ethnicity-mutually exclusive detailed grps(Am Indian only/ +1 oth race)(RaceOne17New Hispanic)	0: Hispanic 10: White 21: Black/Afri Am-African Ame 22: Black/Afri Am-East African 23: Black/Afri Am-West African 24: Black/Afri Am-Black, other 25: Black/Afri Am-NonSpecific 31: Asian/Asian Am-SEA 32: Asian/Asian Am-other 33: Asian/Asian Am-non-specific 40: Am Indian, Alaska Native (only or +1 Oth Race) 50: NHPI 60: Bi/Multi racial 70: Other 71: Other,nonHispanic 72: Other,Hispanic 73: Other, text uncodable 74: Other, no text entered 99: F6 & F7 all Blank		155	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
EthRace7New	EthRace:Race & ethnicity-mutually exclusive 7gps(Am Indian only/+1 oth race) (EthRace18New)	1: White 2: Black/Afri Am-NonHispanic 3: Asian/Asian Am-NonHispanic 4: Am Indian/AN-NH only/ +1 oth race 5: Other, NHPI-nonHispanic 6: Bi/Multi racial -nonHispanic 7: Hispanic/Latino 9: F6 & F7 all Blank	9	156	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
EthRace6New	EthRace: Race & ethnicity-mutually exclusive 6 grps(Am Indian only/+1 oth race) (EthRace18New)	1: White 2: Black/Afri Am-NonHispanic 3: Asian/Asian Am-NonHispanic 4: Am Indian/AN-NH only /+1 oth race 5: Other,NHPI, bi/multi racial 6: Hispanic/Latino 9: F6 & F7 all Blank	9	157	Computed	NU	Key demographic variables for data reporting	demographic, ethnicity, cultural group
EthRace5	EthRace: SHAPE mail+ Data Book 5 race/ ethnicity categories (ethrace18new)	10: Hispanic 20: Indian-NH 30: Asian-NH 40: Black-NH 50: White-NH 88: Not reporting NHPI, Oth, multi) 99: Blank on both 6 &7	88 through Highest	158	Computed	Data book reporting categories See Appendix B Technical Notes for details	Key demographic variables for data reporting	demographic, ethnicity, cultural group

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
EthRace5sub	EthRrace: SHAPE mail+ Data Book 3 race/ ethnicity sub-groups(ethrace18new ethrace5cch)	31: SEA-NH 41: Black-US born NH 42: Black-Foreigh born NH 88: Not reporting 99: Blank on both 6 & &	88 through Highest	159	Computed	Data book reporting categories See Appendix B Technical Notes for details	Key demographic variables for data reporting	demographic, ethnicity, cultural group
HHAdult	HH size: # of adults live in household, temp (imputed F12, HHAdultz)	None		160	Computed	NU	Key demographic variables for data reporting	Demographic, household size
HHChild05	HH size: # of children age 0-5 live in household(HHChild05z, blank=0)	98: text not code-able	98 through Highest	161	Computed	NU	Key demographic variables for data reporting	Demographic, household size, household with children
HHChild617	HH size: # of children age 6-17 live in household(HHChild617z, blank=0)	None	98 through Highest	162	Computed	NU	Key demographic variables for data reporting	Demographic, household size, household with children
HHChild017	HH size: # of children age 0 -17 live in household, binary (HHChild05 HHChild617 blank=0)	98: text non-codable	98	163	Computed	NU	Key demographic variables for data reporting	Demographic, household size, household with children
HHSize	HH size: # of adults and children live in the household (text converted, imputed and cleaned)	None		164	Computed	NU	Key demographic variables for data reporting	Demographic, household size
HHChild05any	HH size: any child age 0-5 live in household, binary (HHChild05 blank=0)	0: No, blank 1: Yes 9: text non-codable	9 through Highest	165	Computed	NU	Key demographic variables for data reporting	Demographic, household size, household with children
HHChild017any	HH size: any child age 0-17 live in household, binary (HHChild017 blank=0)	0: No, blank 1: Yes 9: text non-codable	9 through Highest	166	Computed	NU	Key demographic variables for data reporting	Demographic, household size, household with children
Poverty3gp	HH income: measured by 2017 FPL (income hhsize)	1: <100% FPL 2: 100-199% 3: â‰¥200% 9: Income blank’	9	167	Computed	NU	Key demographic variables for data reporting	Demograpohic, household income, poverty level
Pov200	HH income: measured by 2017 FPL,missig imputed, Data Book (Poverty200Plus)	9: Blank 10: <200%FPL 20: >=200%FPL	9	168	Computed	Data book reporting categories See Appendix B Technical Notes for details	Key demographic variables for data reporting	Demograpohic, household income, poverty level

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Pov200sub	HH income: measured by 2017 FPL, Data Book 2 subgroups(Poverty3gp)	11: <100%FPL 12: 100-199%FPL 30: >=200%FPL 99: Blank	30 through Highest	169	Computed	Data book reporting categories See Appendix B Technical Notes for details	Key demographic variables for data reporting	Demograpohic, household income, poverty level
SelfRate	HRQOL: In general, would you say your health is (A1)	1: Excellent 2: Very good 3: Good 4: Fair 5: Poor 9: Blank	9	170	Recoded	Table 2	Overall health	Overall health,Self rated health,Health Related Quality of Life (HRQOL)
ExVg	HRQOL: Self-rated health as Excellent or Very good (A1)	0: No 1: Yes 9: Blank	9	171	Recoded	Table 1	Overall health	Overall health,Self rated health,Health Related Quality of Life (HRQOL), good health
PoorFair	HRQOL: Self rated health as Poor or Fair (A1)	0: No 1: Yes 9: Blank	9	172	Recoded	Table 1	Overall health	Overall health,Self rated health,Health Related Quality of Life (HRQOL), Poor health
PHYSICAL_c	HRQOL: Not good physical health days, categories(A2)	0: 0 day 1: 1-2 days 2: 3-7days 3: 8-13days 4: 14-30 days 7: Invalid range 8: Text not codeable 9: Blank	7 through Highest	173	Recoded	Table 3	Overall health	Overall health,Physical health,Unhealthy physical health days,Health Related Quality of Life (HRQOL)
MENTAL_c	HRQOL: Not good mental health days, categories (A3)	0: 0 day 1: 1-2 days 2: 3-7days 3: 8-13days 4: 14-30 days 7: Invalid range 8: Text not codeable 9: Blank	7 through Highest	174	Recoded	Table 4	Overall health	Overall health,Mental health,Unhealthy mental health days,Health Related Quality of Life (HRQOL)
FPD	HRQOL: Frequent physical health distress (>=14 days physical health not good)(A2)	0: No 1: Yes 7: Invalid 8: Text not codeable 9: Blank	7 through 9	175	Recoded	Table 1	Overall health	Overall health, Health Related Quality of Life (HRQOL),Frequent physical health distress
FMD	HRQOL: Frequent Mental Distress (>=14 days mental health not good)(A3)	0: no 1: Yes 7: Invalid 8: Text not codeable 9: blank	7 through Highest	176	Recoded	Table 1 Data book reporting categories See Appendix B Technical Notes for details	Overall health	Overall health, Health Related Quality of Life (HRQOL), Frequent mental distress,Mental health

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
PHQ2Depress	PHQ2: Having major depressive episode in past 2 (score>=3) (A4a A4b)	0: No 1: Yes 9: Blank both	9	177	Computed	Table 5	Overall health	Mental health,PHQ-2,Patient History Questionnaire-2,Major depressive episode,Major depressive disorder,Depression screener,High risk depression
HBP3gp	HBP Ever been diagnosed w hypertension, high blood pressure (1,2 used for data book) (A5a)	1: HBP 2: HBP pre/borderline 3: Not for DB-No or gestational only 9: Blank	9	178	Recoded	Table 6	Overall health	Hypertension,Hypertension - ever had,Borderline hypertension,Pre-hypertension,High blood pressure
Diabet3gp	Diabet: Ever been diagnosed w diabetes or sugar disease, not include gestational (1,2 used for data book) (A5a)	1: Diabet 2: Diabet pre/borderline 3: Not for DB-No or gestational only 9: Blank	9	179	Recoded	Table 7	Overall health	Diabetes,Diabetes - ever had,Borderline diabetes,Pre-diabetes,Sugar disease
heightin	BMI: How tall are you without shoes? INCHES (combine: feet inch cm, coded & verified)(A6#)	97: invalid value 99: Blank all ft in cm	97.0, 99.0	180	Computed	NU	Overall health	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
Weightlb	BMI: How much do you weight without shoes? weight in pounds (wgt_lb, wgt_kg, coded and verified(A7#)	997: invalid value, text not codable 999: Blank	997.0 through Highest	181	Computed	NU	Overall health	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
BMI	BMI: Body Mass Index value (A6 A7, coded)	998: Invalid value 999: Missing	990.00 through Highest	182	Computed	NU	Overall health	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
BMIcat	BMI: Clinical Guideline 4 categories (Heightin weightily coded from A6 A7)	1: Underweight(BMI<18.5) 2: Normal (BMI 18.5-24.9) 3: Overweight (BMI 25.0-29.9) 4: Obese (BMI>=30.0) 9: invalid/Missing	9	183	Computed	Table 8	Overall health	Body Mass Index,BMI (Body Mass Index),Weight,Obese,Overweight,Normal weight,Underweight
Disability	Disability: Are you limited in any activities because of physical, mental or emotional problems?(A8)	0: No 1: Yes 9: Blank	9	184	Recoded	Table 9 Data book reporting categories See Appendix B Technical Notes for details	Overall health	Activity limitation,Disability
Disability55	Disability: Activity limitation due to physical, mental or emotional problems, Age>=55 (A8 AgeGp6)	0: No 1: Yes 8: age<55 9: Blank A8 99: Age invalid/blank	8 through Highest	185	Computed	Table 9	Overall health	Activity limitation,Disability

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Disability65	Disability: Activity limitation due to physical, mental or emotional problems? Age>=65 (A8 AgeGp6)	0: No 1: Yes 8: age<65 9: Blank 99: Age invalid/blank	8 through Highest	186	Computed	Table 9	Overall health	Activity limitation,Disability
ADL	Disability: ADL-need help in personal care needs due to impairment or hlth problems(A9)	0: No 1: Yes 9: Blank	9	187	Recoded	NU	Overall health	Activities of daily living (ADL),Activity limitation,Disability,Functional limitation
ADL55	Disability: ADL-Need help w personal needs, aged>=55 (A9 agegp6)	0: No 1: Yes 8: age<55 9: Blank 99: Age invalid/blank	7 through Highest	188	Computed	Table 10	Overall health	Activities of daily living (ADL),Activity limitation,Disability,Functional limitation
ADL65	Disability: ADL-Need help w personal needs, aged>=65 (A9 agegp6)	0: No 1: Yes 8: age<65 9: Blank 99: Age invalid/blank	7 through Highest	189	Computed	Table 10	Overall health	Activities of daily living (ADL),Activity limitation,Disability,Functional limitation
IADL	Disability: IADL-need help in handing routine needs due to impairment or hlth problems(A10)	0: No 1: Yes 9: Blank	9	190	Recoded	NU	Overall health	Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation
IADL55	Disability: IADL-Need help w routine needs, aged>=55 (A10 agegp6)	0: No 1: Yes 8: age<55 9: Blank 99: Age invalid/blank	7 through Highest	191	Computed	Table 11	Overall health	Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation
IADL65	Disability: IADL-Need help w routine needs, aged>=65 (A10 agegp6)	0: No 1: Yes 8: age<65 9: Blank 99: Age invalid/blank	7 through Highest	192	Computed	Table 11	Overall health	Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation
Disable	Disability: Either ADL or IADL-need health in personal care needs or routine needs due to impairment or hlth problems (A9 A10)(blank all)	0: No 1: Yes 9: Blank all	7 through Highest	193	Computed	NU	Overall health	Activities of daily living (ADL),Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation
Disable55	Disability: Either ADL or IADL, aged>=55 (A9 A10 agegp6)(Blank all)	0: No 1: Yes 8: age<55 9: Blank 99: Age invalid/blank	7 through Highest	194	Computed	Table 12	Overall health	Activities of daily living (ADL),Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation
Disable65	Disability: Either ADL or IADL, aged>=65 (A9 A10 agegp6)(Blank all)	0: No 1: Yes 8: age<65 9: Blank 99: Age invalid/blank	7 through Highest	195	Computed	Table 12	Overall health	Activities of daily living (ADL),Instrumental activities of daily living (IADL),Activity limitation,-Disability,Functional limitation

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Insure4gp	Access: Current health insurance-4gps(spill over/illogical check/text coding, all text code or code-backs)	1: Insured, group/individual 2: Insured, public 3: Insured, type unknown 4: Uninsured (include IHS only) 9: Blank on all B1 items	9	196	Computed	Table 13 Table 14	Access to health care	Insurance coverage,Health insurance - current coverage,Privately insured,Publicly insured,Uninsured
Insure-12cat_2010	Access: Insurance coverage for past year (B2, B1, coding follows 2010)	1: Insured entire year 2: Insured part year 3: Uninsured entire year 9: Blank	9	197	Computed	Table 15	Access to health care	Insurance coverage,Health insurance - 12 month coverage,Uninsured - Ever during the year,Health access - coverage
HIthPay5	Access: how difficult for you & family to pay for insure premiums, co-pays and deductibles in12m, 5 grps(B3)	1: Very Difficult 2: Somewhat difficult 3: Not too difficult 4: Not at all difficult 5: Not applicable 9: Blank	9	198	Recoded	Table 16	Access to health care	Insurance coverage,Health insurance - difficulty paying for,Health access - barrier
MedCare12m	Access: Seen a health care provider for own health in 12m (B4)	0: No 1: Yes 9: Blank	9	199	Recoded	Table 17	Access to health care	Medical care,Medical care - sought care in last 12 months
MltCare12m	Access: Seen a mental care provider for own health in 12m (B5)	0: No 1: Yes 9: Blank	9	200	Recoded	Table 18	Access to health care	Mental health,Mental health - sought mental health care in last 12 months
MedNeed	Access: During past 12m, was there a time when you needed medical care(B6)	0: No 1: Yes 9: Blank	9	201	Recoded	Table 19	Access to health care	Physical health,Medical care need
MedUnmet1	Access: Delay/not get needed medical care in 12 m, among needed (B7 B6)	0: No 1: Yes 7: Need care, Blank B7 8: No medical care need 9: Blank B6	7 through Highest	202	Computed	Table 19	Access to health care	Unmet health care need-medical, Delayed health care need-medical, Unment health care need, Delayed health care need, Health access-barrier
MedUnmet-Cost1	Access: Unmet medical care to cost/lack insurance, among those have unmet needed care (MedUnmetCost0)	0: No 1: Yes 4: Needed care met 6: Needed care unmet, B8 blank 7: Needed care, B7 blank 8: B6No care need 9: B6(care need) blank	4 through Highest	203	Computed	Table 19	Access to health care	Unmet medical care need due to cost,Unmet medical care need due to coverage,Delayed medical care need due to cost,Delayed medical care need due to coverage,Health access - barrier
MltNeed	Access: During past 12m, was there a time when you needed mental care(B9)	0: No 1: Yes 9: Blank	9	204	Recoded	Table 20	Access to health care	Mental health,Care need-Stress,-Care need-Depression,Care need-Emotional problems,Care need-Worrying,Care need-Troubling thoughts
MltUnmet1	Access: Delay/not get needed mental care in 12 m, among needed care (B10 B9)	0: No 1: Yes 7: Need care, B10 blank 8: No mental care need 9: Blank B9	7 through Highest	205	Computed	Table 20	Access to health care	Unmet health care need-mental, Delayed health care need-mental, Unmet mental health care need, Delayed mental care need, Health access-barrier

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
MItUnmet-Cost1	Access: Unmet mental care to cost/ lack insurance, among those have unmet needed care (MItUnmetCost0)	0: No 1: Yes 4: Needed care met 6: Needed care unmet, B11 blank 7: Needed care, B10 blank 8: B9 No care need 9: B9(care need) blank	4 through Highest	206	Computed	Table 20	Access to health care	Unmet mental health care need due to cost, Unmet mental health care need due to coverage,Delayed mental health care need due to cost,Delayed mental health care need due to coverage,Health access - barrier
RPC5	Access: Having regular place of care (5 grp) (B12)	1: Dr office or clinic 2: ER 3: Urgent care 4: Minute clinic (in store) 5: No usual place 9: Blank	9	207	Recoded	Table 21	Access to health care	Regular place of care,Health access
MedCut1	Access: Skipped/took smaller dose/did not fill prescription due to cost in12m, among prescribed med users (B13)	0: No 1: Yes 3: Not prescribed medication 9: Blank	3 through Highest	208	Recoded	Table 22	Access to health care	Prescription medications,Prescription medications - skipped doses due to cost,Poor medication adherence due to cost,-Medication insecurityVeteran's Affairs, Military Health
Dentalvisit	Access: Last dental visit (B14)	1: Within the past year 2: Within the past 2 years 3: Within the past 5 years 4: 5 or more years ago 5: Never 9: Blank	9	209	Recoded	Table 23	Access to health care	Dental care,Last dental visit,Preventive care - dental
HealthInfo4	Access: Provider gave health/healthcare info ALWAYS easy to understand in12m - 4 group (among those saw a HCP)(B15)	1: Always 2: Most of the time 3: Some of the time 4: None of the time 5: I did not see any health care provider 9: Blank	5 through Highest	210	Recoded	Table 24	Access to health care	Health care information,Health information,Health literacy,Health communication,Plain language
Respect4	Access: ALWAYS being treated with respect by health care providers in12m - 4 group (among those saw a HCP) (B16)	1: Always 2: Most of the time 3: Some of the time 4: None of the time 5: I did not see any health care provider 9: Blank	5 through Highest	211	Recoded	Table 25	Access to health care	Health care provider,Treated with respect,Patient-provider relationship,Discrimination in health care settings,Unfair treatment in health care settings
Veg0	L&B: Veg servings yesterday (C1 valid value)	95: >12 serviings 96: Unquantifiable/likely>=1 98: Text not relevant 99: Blank/DK	80.00 through Highest	212	Recoded	NU	Healthy lifestyle and behavior	Vegetables,Diet - servings of vegetables,Nutrition,Dietary behavior

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Veg4	L&B: Veg servings yesterday-4grp(Data-book)(C1 valid value)	0: 0-<1 serving 1: 1-<2 servings 2: 2-<3 servings 3: 4-12 servings 95: Invalid (>12) 96: unquantitiable/likely>=1 98: Text irrelavant 99: Blank/DK	80 through Highest	213	Recoded	Table 27	Healthy lifestyle and behavior	Vegetables,Diet - servings of vegetables,Nutrition,Dietary behavior
Veg3yes	L&B: Veg servings yesterday-3 binary(Data-book)(C1 valid value)	0: 0-<3 servings 1: 3-12 servings 95: Invalid (>12) 96: unquantitiable/likely>=1 98: Text irrelavant 99: Blank/DK	8 through Highest	214	Recoded	Table 26	Healthy lifestyle and behavior	Vegetables,Diet - servings of vegetables,Nutrition,Dietary behavior
Fruit0	L&B: Fruit servings yesterday(C2 valid value)	95: >10 serviings 96: Unquantifiable/likely>=1 98: Text not relevant 99: Blank/DK	80.00 through Highest	215	Recoded	nu	Healthy lifestyle and behavior	Fruits,Diet - servings of fruit,Nu-trition,Dietary behavior
Fruit4	L&B: Fruit servings yesterday-4grp(Data-book)(C2 valid value)	0: 0-<1 serving 1: 1-<2 servings 2: 2-<3 servings 3: 3-10 servings 95: Invalid (>10) 96: Unquantitiable/likely>=1 98: Text irrelavant 99: Blank/DK	80 through Highest	216	Recoded	Table 28	Healthy lifestyle and behavior	Fruits,Diet - servings of fruit,Nu-trition,Dietary behavior
Fruit2yes	L&B: Fruit servings yesterday-2 binary(-Databook)(C2 valid value)	0: 0-<2 servings 1: 2-10 servings 95: Invalid (>10) 96: unquantitiable/Likely>=1 98: Text not relavant 99: Blank/DK	8 through Highest	217	Recoded	Table 26	Healthy lifestyle and behavior	Fruits,Diet - servings of fruit,Nu-trition,Dietary behavior
Juice0	L&B: Fruit juice 100% servings yesterday(C3 valid value)	95: >10 serviings 96: Unquantifiable/likely>=1 98: Text not relevant 99: Blank/DK	80.00 through Highest	218	Recoded	nu	Healthy lifestyle and behavior	Fruit juice,Diet - servings of fruit juice,Nutrition,Dietary behavior
Juice4	L&B: Fruit juice 100% servings yester-day-4grp(Databook)(C3 valid value)	0: 0-<1 serving 1: 1-<2 servings 2: 2-<3 servings 3: 3-10 servings 95: Invalid (>10) 96: Unquantitiable/likely>=1 98: Text irrelavant 99: Blank/DK	80 through Highest	219	Recoded	Table 29	Healthy lifestyle and behavior	Fruit juice,Diet - servings of fruit juice,Nutrition,Dietary behavior
VegFruit	L&B Servings of Veg or Fruit (exclude juice) yesterday (C1 C2 valid value)	95: Invalid (C1 C2 Com-bined>12) 99: C1/C2 both blank/irrele-vant/ invalid	95.00 through Highest	220	Computed	nu	Healthy lifestyle and behavior	Diet,Diet - servings of fruit and vegetables,Diet - vegetables,Diet - fruits,Five-A-Day

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
VegFruit4	L&B Servings of Veg or Fruit (exclude juice) yesterday, 4grps(C1 C2 valid value)	0: 0-<1 serving 1: 1-<2 servings 2: 2-<3 servings 3: 3-20 servings 95: Invalid(C1 C2 combined>10) 99: C/C2 both blank/irrelevant/invalid	8 through Highest	221	Computed	Table 30	Healthy lifestyle and behavior	Diet,Diet - servings of fruit and vegetables,Diet - vegetables,Diet - fruits,Five-A-Day
FiveADay0	L&B: # of servings of fruits/vegs yesterday(C1 C2 C3 valid value)	99: C1 C2 C3 all blank/irrelevant/invalid vlue	99	222	Computed	nu	Healthy lifestyle and behavior	Diet,Diet - servings of fruit, fruit juice and vegetables,Diet - vegetables,Diet - fruits,Diet - fruit juice,Five-A-Day
FiveAday5	L&B # of servings of fruits/vegs yesterday-5 grps(C1 C2 C3 valid value)	0: 0-<1 servings 1: 1-<2 servings 2: 2-<3 servings 3: 3-<5 servings 4: >=5 servings 95: Invalid(>20) 99: C1 C2 C3 all blank/irrelevant/invalid value	80 through Highest	223	Computed	Table 31	Healthy lifestyle and behavior	Diet,Diet - servings of fruit, fruit juice and vegetables,Diet - vegetables,Diet - fruits,Diet - fruit juice,Five-A-Day
FiveAday	L&B: Having >=5 servings of fruits/vegs yesterday-binary(C1 C2 C3 valid value)	0: 0-<5 servings 1: 5-20 servings 95: Invalid(>20) 99: C1 C2 C3 all blank/irrelevant/invalid value	80 through Highest	224	Computed	Table 26	Healthy lifestyle and behavior	Diet,Diet - servings of fruit, fruit juice and vegetables,Diet - vegetables,Diet - fruits,Diet - fruit juice,Five-A-Day
LTPAany	L&B: Any physical activity in leisure time during past 30 days (C4)	0: No 1: Yes 9: Blank	9	225	Recoded	Table 37	Healthy lifestyle and behavior	Physical activity,Physical activity - leisure time,Leisure time physical activity,Exercise
PAmodDay	L&B During average week, days/w do moderate PA at lease 30min a time (C5)	0: 0 days 1: 1 day 2: 2 days 3: 3 day 4: 4 days 5: 5 days 6: 6 days 7: 7 days 800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text non code-able 999: Blank	810 through Highest	226	Recoded	NU	Healthy lifestyle and behavior	Moderate physical activity,Physical activity, moderate,Exercise

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
PAmod4	L&B During average week, days/w do moderate PA at lease 30min a time (C5)	1: 0 days 2: 1 to 2 days 3: 3 to 4 days 4: 5 to 7 days 800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text non code-able 999: Blank	810 through Highest	227	Recoded	Table 38	Healthy lifestyle and behavior	Moderate physical activity,Physical activity, moderate,Exercise
PAmod	L&B PA guideline- >=5 days/w moderate PA at lease 30min a time (C5)	0: 0-4 days 1: 5-7 days 800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text non code-able 999: Blank	800 through Highest	228	Recoded	Table 36	Healthy lifestyle and behavior	Moderate physical activity,Physical activity, moderate,Exercise
PAvigDay	L&B During average week, days/w do vigorous PA at lease 20 min a time (C6)	0: 0 days 1: 1 day 2: 2 days 3: 3 day 4: 4 days 5: 5 days 6: 6 days 7: 7 days 800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text non code-able 999: Blank	810 through Highest	229	Recoded	NU	Healthy lifestyle and behavior	Vigorous physical activity,-Physical activity, vigorous,Exercise,Highly active
PAvig4	L&B During average week, days/w do vigorous PA at lease 20min a time (C6)	1: 0 days 2: 1 to 2 days 3: 3 to 4 days 4: 5 to 7 days 800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text non code-able 999: Blank	810 through Highest	230	Recoded	Table 39	Healthy lifestyle and behavior	Vigorous physical activity,-Physical activity, vigorous,Exercise,Highly active

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
PAvig	L&B During average week, >=3 days do vigorous PA at lease 20min a time (C6)	0: 0-2 days 1: 3-7 days 800: 0-9 minutes 810: 10-19 minutes 820: 20-29 minutes 830: More than 30 minutes 996: Time cannot be quantified 998: Text non code-able 999: Blank	800 through Highest	231	Recoded	Table 36	Healthy lifestyle and behavior	Vigorous physical activity,-Physical activity, vigorous,Exercise,Highly active
PAEither	L&B Meeting either moderate (>=5d/w) or vigorous (>=3d/w) PA guideline (C5,C6)	0: No 1: Yes-meet mod or vig guide 9: Blank	9	232	Computed	Table 36	Healthy lifestyle and behavior	Healthy People 2020,Moderate physical activity,Physical activity, moderate,Vigorous physical activity,Physical activity, vigorous,Leisure time physical activity
Walk	L&B: # of days WALK to and from places on average week (C7_text, only valid value)	95: Invalid range(>7d) 96: Unquantifiable (walked some) 98: Invalid/Unquntifiable 99: Blank/Unknown	95 through Highest	233	Recoded	NU	Healthy lifestyle and behavior	Walk,Walk to destination,Active living
Walk5	L&B WALK to and from places # of day/s on average week (C7_text, maximize text info)	1: 0 days 2: 1-2 days 3: 3-4 days 4: 5-6 days 5: 7 days 9: Blank/Unknown	9	234	Recoded	Table 40	Healthy lifestyle and behavior	Walk,Walk to destination,Active living
Bike	L&B: # of days BIKE to and from places for exercise/recreation on average week (C8_text, only valid value)	95: Invalid range(>7d) 96: Unquantifiable (Bike some) 98: Invalid/Unquntifiable 99: Blank/Unknown	95 through Highest	235	Recoded	NU	Healthy lifestyle and behavior	Bike,Bike for exercise or recreation,Active living
Bike5	L&B BIKE to and from places # of day/s on average week (C7_text, maximize text info)	1: 0 days 2: 1-2 days 3: 3-4 days 4: 5-6 days 5: 7 days 9: Blank/Unknown	9	236	Recoded	Table 41	Healthy lifestyle and behavior	Bike,Bike for exercise or recreation,Active living
DrkDay	L&B: Days having at least 1drink of any alcohol beverage in 30 days(C9)	96: Drink,days unknown 99: Blank/uncode-dable	91.0 through Highest	237	Recoded	NU	Healthy lifestyle and behavior	Alcohol use,Alcohol use - drinking days
DrkNum	L&B: Drinks /day on average on the days when you drank in 30 days (C10)	96: Drink, num unknown 99: Blank/uncode-dable	96.0 through Highest	238	Recoded	NU	Healthy lifestyle and behavior	Alcohol use,Alcohol use - drinking amount
BingeNum	L&B: Binge- # of times in 30day, gender combined (Binge male BingeFemale)	777: Invalid, different num entered in both C11s 888: Gender blank 96: Binge, num uk 97: Text not codable 99: either C11s blank	91 through Highest	239	Computed	NU	Healthy lifestyle and behavior	Alcohol use,Binge drinking,-Excessive drinking,Problem drinking

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
Binge	L&B: Binge >=1 times in 30day, gender combined (BingeNum)	0: No 1: Yes 7: Text not codable, invalid 8: Gender mis 9: C11 Blank	6 through 9	240	Computed	Table 42	Healthy lifestyle and behavior	Alcohol use,Binge drinking,-Excessive drinking,Problem drinking
Binge5	L&B: Binge drinking in 30d (gender specif-ic) among all, 5groups (BingeNum)	1: 0 times 2: 1 time 3: 2 times 4: 3 to 5 times 5: 6 or more times 6: Binge, num unknown 7: Text not codable, invalid 8: Gender mis 9: Blank on C11	6 through Highest	241	Computed	Table 45	Healthy lifestyle and behavior	Alcohol use,Binge drinking,-Excessive drinking,Problem drinking
DrkNow	L&B: Current alcohol use (drink at least one alcohol on>=1day in 30d(drkday drknum beingenum)	0: no 1: yes 9: Blank on 3	9	242	Computed	Table 42	Healthy lifestyle and behavior	Alcohol use,Alcohol use - drink-ing days
DrkDay5	L&B: Number of days have at least one alcohol drink in 30d, 5grps(drkday drknow)	1: 0 days 2: 1-3 days 3: 4-9 days 4: 10-19 days 5: 20-30 days 9: Blank/not codable	9	243	Computed	Table 43	Healthy lifestyle and behavior	Alcohol use,Alcohol use - drink-ing days
DrkNum4	L&B: Average # of drinks on the days when drank in 30d (C10, drknow)	1: 0 drinks /non-drinker 2: 1-2 drinks 3: 3-4 drinks 4: 5-60 drinks 9: Blank	9 through Highest	244	Computed	Table 44	Healthy lifestyle and behavior	Alcohol use,Alcohol use - drink-ing amount
DrkHvy	L&B: Heavy drinking (male >2, female>1/day) (drknum gender)	0: No 1: Yes 6: drink, num unknown 7: Missing both Drknum 9: Missing drknum	6 through 9	245	Computed	Table 42	Healthy lifestyle and behavior	Alcohol use,Alcohol use - drink-ing amount
drkprob	L&B: Excessive drinking or risk drinking (either binge or heavy drinking) (binge drkhvy)	0: no 1: yes 9: invalid/blank	9	246	Computed	Table 42	Healthy lifestyle and behavior	Alcohol use,Current alcohol use,Heavy drinking,Binge drink-ing,Excessive drinking,Problem drinking
smokecat	L&B: Current smoking status-catego-ries(C12x C13x)	1: Everyday smoker 2: Someday smoker 3: Former smoker 4: Never smoker 7: C12x=1 C13x blank 8: C12x blank C13x=3 9: C12x C13x both blank	7 through Highest	247	Computed	Table 47	Healthy lifestyle and behavior	Smoking,Tobacco,Cigarette use,Cigarette use - every day smoker,Cigarette use - some day smoker,Cigarette use - former smoker,Cigarette use - never smoked
Smoke	L&B: Currently smoking (100cig lifetime & smoke someday/everyday now (C12x C13x)	0: No 1: Yes 7: C12x=1 C13x blank 8: C12x blank C13x=3 9: C12x C13x both blank	7 through Highest	248	Computed	Table 46	Healthy lifestyle and behavior	Smoking,Tobacco,Cigarette use

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
menthol	L&B: Is your usual brand menthol (among current smokers)(smoke, C14)	0: No 1: Yes 7: Non-smokers 9: Blank	7 through Highest	249	Computed	Table 48	Healthy lifestyle and behavior	Smoking,Tobacco,Menthol cigarettes,Menthol cigarettes - current use,Usual cigarette brand
MentholRate	L&B: Currently smoke menthol cigarettes(among all, Smoke, Menthol)	0: No 1: Yes 9: Blank	7 through Highest	250	Computed	Table 48	Healthy lifestyle and behavior	Smoking,Tobacco,Menthol cigarettes,Menthol cigarettes - current use,Usual cigarette brand
QuitADay	L&B: Have you stopped smoking for>=1 day in 12m(among current smokers) (smoke, C15)	0: No 1: Yes 7: Blank C15 8: Nonsmoker 9: Mis smoke	7 through Highest	251	Computed	Table 49	Healthy lifestyle and behavior	Smoking cessation,Quit smoking,Quit a day
TobaccoOth	L&B: Used other tobacco products in 12m (C16)	0: No 1: Yes 9: Blank	9	252	Recoded	Table 50	Healthy lifestyle and behavior	Tobacco,Other tobacco products
ETShome	L&B: Someone(include you) smoke regularly inside home (C17)	0: No 1: Yes 9: Blank	9	253	Recoded	Table 51	Healthy lifestyle and behavior	Smoking,Tobacco,ETS - inside your home,Environmental tobacco smoke (ETS),Secondhand smoke (SHS)
ECigUse	L&B: Currently use electronic cigarettes (C18)	1: Everyday 2: Some days 3: Used to, but now now 4: Never 9: Blank	9, 99	254	Recoded	Table 53	Healthy lifestyle and behavior	Electronic cigarette,E-Cig,Electronic cigarette - every day use,Electronic cigarette - some days use,Electronic cigarette - former user,Electronic cigarette - never used
ECigEver	L&B: Ever used E-cig (C18) (current+former users)	0: No 1: Yes 9: blank	9	255	Recoded	Table 52	Healthy lifestyle and behavior	Electronic cigarette,E-Cig,Electronic cigarette - current use,Electronic cigarette - ever use
ECigNow	L&B: Currently use E-cig (every day or some day use) (C18)	0: No 1: Yes 9: blank	9	256	Recoded	Table 52	Healthy lifestyle and behavior	Electronic cigarette,E-Cig,Electronic cigarette - current use,Electronic cigarette - ever use
K61_4gp	Mental hlth: Feel so sad that nothing could cheer you up in 30d-4gp(K6-1)(D1)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	257	Recoded	Table 54	How you feel	Mental health,Mental health - feeling so sad,Non-specific psychological distress
K62_4gp	Mental hlth: Feel nervous in 30d-4gp(K6-2) (D2)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	258	Recoded	Table 55	How you feel	Mental health,Mental health - feeling nervous,Non-specific psychological distress
K63_4gp	Mental hlth: Feel so restless or fidget that you could not sit still in 30d-4gp(K6-3)(D3)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	259	Recoded	Table 56	How you feel	Mental health,Mental health - feeling restless or fidgety,Non-specific psychological distress

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
K64_4gp	Mental hlth: Feel hopeless in 30d-4gp(K6-4)(D4)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	260	Recoded	Table 57	How you feel	Mental health,Mental health - feeling hopeless,Non-specific psychological distress
K65_4gp	Mental hlth: Feel that everything was an effort in 30d-4gp(K6-5)(D5)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	261	Recoded	Table 58	How you feel	Mental health,Mental health - feeling everything was an effort,Non-specific psychological distress
K66_4gp	Mental hlth: Feel worthless in 30d-4gp(K6-6)(D6)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	262	Recoded	Table 59	How you feel	Mental health,Mental health - feeling worthless,Non-specific psychological distress
spd0	Mental HIth: Significant Psychological Distress-K6, original score(D1 to D6)	77: Blank, 1 to 5 items 99: Blank, all 6 items	77, 99	263	Computed	NU	How you feel	Mental health,Serious psychological distress,Non-specific psychological distress
spd	Mental HIth: Serious Psychological Distress- K6 Scale >=13 (D1 to D6)	0: No 1: Yes 7: Blank, 1-5 items 9: Blank, all 6 items	7, 9	264	Computed	Table 60	How you feel	Mental health,Serious psychological distress,Non-specific psychological distress
SPDany	Mental HIth: Psychological Distress- K6 Scale>=7 (mild to serious SPD)(D1 to D6)	0: None 1: Yes 7: Blank, 1-5 items 9: Blank, all 6 items	7, 9	265	Computed	Table 60	How you feel	Mental health,Serious psychological distress,Non-specific psychological distress
Stress_4gp	Mental hlth: Feel stress in 30d-4gp (D7)	1: None of the time 2: A little of the time 3: Most of the time 4: Most/All of the time 9: Blank	9	266	Recoded	Table 61	How you feel	Stress,Mental health
Comm5	C&N School/community/neighborhood activities involvement-5gp(E1)	1: Weekly 2: Monthly 3: Several times a yr 4: Once a yr/ less often 5: Never 9: Blank	9 through Highest	267	Recoded	Table 62	About your community	Community involvement,Community connectedness
Support4	C&N Social and emotional support-4gp(E2)	1: Always 2: Usually 3: Sometimes 4: Rarely/Never 9: Blank	9 through Highest	268	Recoded	Table 63	About your community	Social support,Emotional support,Community connectedness
Isolated4	C&N Feel isolated-4gp(E3)	1: Always/Usually 2: Sometimes 3: Rarely 4: Never 9: Blank	9 through Highest	269	Recoded	Table 64	About your community	Isolated,Community connectedness

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
CommChild4	C&N This is good community to raise children in-4gp(E4)	1: Strongly agree 2: Somewhat agree 3: Somewhat disagree 4: Strongly disagree 9: Blank	9, 99	270	Recoded	Table 65	About your community	Community,Good community to raise children,Social cohesion
NHsafe4	C&N In general, how safe from crime do you consider your neighborhood-4gp(E5)	1: Very safe 2: Somewhat safe 3: Somewhat unsafe 4: Not at all safe 9: Blank	9	271	Recoded	Table 66	About your community	Neighborhood safety,Safety, crime
Food4	FHT Worry food ran out before have money to buy more in12m-4gp(E7)	1: Often 2: Sometimes 3: Rarely 4: Never 9: Blank	9	272	Recoded	Table 67	About your community	Food insecurity,Worry food run out
Food	FHT Worry food ran out before have money to buy more in12m-2gp(E7)	0: Rarely/never 1: Often/sometimes 9: Blank	9	273	Recoded	NU	About your community	Food insecurity,Worry food run out
Rent	FHT Missed rent or mortgage payment due to no enough money in 12m(E8)	0: No 1: Yes 9: Blank	9	274	Recoded		About your community	Housing insecurity,Missed rent or mortgage
HousingNo	FHT Experienced housing insecurity (either issue with paying or no place to day,E8 E9)	0: No 1: Yes 9: Blank on both E8 E9	9	275	Recoded	Data book reporting categories See Appendix B Technical Notes for details	About your community	Housing security Economic distress
Transport4	FHT Lack of transportation that impact getting places where needed to go (job, med appt, shopping in12m-4gp(E10)	1: Often 2: Sometimes 3: Rarely 4: Never 9: Blank	9	276	Computed	Table 70	About your community	Transportation insecurity,Transportation insecurity & health care
TransportNo	FHT: Experienced transportation insecurity Often/Sometime in 12m 1,2 order(E10)	0: No 1: Yes 2: No 9: Blank	9 through Highest	277	Recoded	NU	About your community	Transportation insecurity,Transportation insecurity & health care
UnAcceptRace4	C&N In situation where felt unaccepted because of Race/ethnicity/culture-4gp(E11)	1: At least once a week/Once or twice a month 2: A few times a year 3: Once a year or less often 4: Never 9: Blank	7 through Highest	278	Recoded	Table 71	About your community	Unaccepted,Intolerance,Discrimination,Discrimination due to race,Cultural intolerance,Discrimination due to culture background,Discrimination due to religion or belief,Discrimination due to immigration status

Varible name	Variable Label	Value Labels	Missing Values	Order in dataset	Varaible type	Data book table	Survey section	Keyword
UnAccept-SOGI4	C&N In situation where felt unaccepted because of sexual orientation/gender identity-4gp(E12)	1: At least once a week/Once or twice a month 2: A few times a year 3: Once a year or less often 4: Never 9: Blank	7 through Highest	279	Recoded	Table 72	About your community	Unaccepted,Intolerance,Discrimination,Discrimination due to sexual orientation,Discrimination due to gender identify,Discrimination due to being LGBT,Discrimination, SOGI
SSB3gp_Fruit	SSB: How often did you drink FRUIT DRINK in the past week?-3gp (F13a)	1: Never or <1 time/week 2: 1 time/week to <1 time/day 3: >=1 time/day 8: In person mode-not asked 9: Blank	8, 9	280	Recoded	Table 32	Healthy lifestyle and behavior	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,-Fruit drinks intake
SSB3gp_Sport	SSB: How often did you drink SPORT DRINK in the past week?-3gp (F13b)	1: Never or <1 time/week 2: 1 time/week to <1 time/day 3: >=1 time/day 8: In person mode-not asked 9: Blank	8, 9	281	Recoded	Table 33	Healthy lifestyle and behavior	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Sports drink intake
SSB3gp_Soda	SSB: How often did you drink SODA/POP DRINK in the past week?-3gp (F13c)	1: Never or <1 time/week 2: 1 time/week to <1 time/day 3: >=1 time/day 8: In person mode-not asked 9: Blank	8, 9	282	Recoded	Table 34	Healthy lifestyle and behavior	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Pop intake,Soda intake
SSB3gp_Energy	SSB: How often did you drink ENERGY DRINK in the past week?-3gp (F13d)	1: Never or <1 time/week 2: 1 time/week to <1 time/day 3: >=1 time/day 8: In person mode-not asked 9: Blank	8, 9	283	Recoded	Table 35	Healthy lifestyle and behavior	Sugar-sweetened beverage (SSB),Dietary behavior,Nutrition,Energy drinks intake
SSB1dayNo	SSB: Sugar-Sweetened Beverage intake < 1 time/day or never, binary (F13a F13b F13c F13d)	0: >=1 times/day 1: never or less than that 8: Inperson, not asked 9: Blank on all 4 items	8, 9	284	Computed	Table 26	Healthy lifestyle and behavior	sugar sweetened beverages, Nutrition,Dietary behavior

Appendix B Technical notes for SHAPE 2018 Adult Data Book

Technical Notes for SHAPE 2018 Adult Data Book

General Technical Notes

Each of the data tables in the SHAPE 2018 Adult Data Book[2] present one or more health indicators. The data are reported for Hennepin County total, ten geographic areas within Hennepin County, and for selected demographic characteristics and social conditions, including age, gender, LGBT self-identification, race and ethnicity, household income, educational attainment, housing insecurity, self-reported disability and frequent mental distress. Respondents were asked to identify whether they were transgender. While nearly 100 respondents indicated that they were transgender, the relative standard error[9] for point estimates for that reporting group are high and the data is therefore unreliable and suppressed. For those interested in further analyzing results for those identifying as transgender, please contact the research team.

Geographic area

Information on the residential location of survey respondents was obtained by extracting address data from the sample frame used for this project. The address data were then geocoded into ten SHAPE 2018 reporting areas. Based on these ten reporting areas, data for the city of Minneapolis, and all suburban Hennepin County areas, and three suburban divisions are also reported.

Some special notes need to be made for the respective data users:

- Changes in geography for most reporting areas between SHAPE 2018 and earlier SHAPE data have been made. These changes include:
    - Minneapolis reporting areas: changes have been made to three of four reporting areas between SHAPE 2018 and SHAPE 2014;
    - Northwest suburbs: Brooklyn Park was grouped as part of inner ring in SHAPE 2018 whereas it was included in the outer ring area in earlier SHAPE surveys.
    - South suburbs: Bloomington was divided into west and east areas in SHAPE 2018, where in earlier SHAPE surveys south suburbs had been divided into inner and outer areas.
- For data users who have a specific need to compare SHAPE 2018 to earlier reported SHAPE data, please contact the project team for assistance.
- Survey respondents needed to have geographic data available in their response to be included in the final dataset. However, a few respondents of the mail survey blacked out or removed survey barcodes that contained geographic area information. They were excluded from final survey dataset as they could not be assigned to a geographic reporting area.

Age

Age was based on the survey respondent's self-reported age (Question F4).

F4. What is your age?

☐ Years

Technical Notes for SHAPE 2018 Adult Data Book

Age is one of the key reporting demographic variables for this data book as well as for the statistical weight calculation. Detailed data processes and cleaning for the age variable were made to reduce missing and data errors for the whole dataset, which is 13,093 cases (both mail mode and in-person mode). This included:

- All data respondents provided, either age in numeric value, or in text description, were captured in data entry. The text part of the data was converted into numeric age value based on the review of text content.
- There were about 550 cases where age was missing or was outside of the valid age range of 18 to 115 years. For these cases, the survey team manually reviewed all paper surveys to check for age-related comments, notes written on the surveys or potential scanning errors, in order to make respective corrections and changes. Additionally, responses from other age-related survey questions, including "years living in the United States." were used to impute age if it was missing or unable to be determined.
- With these corrections made, 164 (54 from the mail mode and 30 from the in-person mode) still had age missing, but noted they were retired or were on Medicare, their age value was assigned as "65 and older."
- After all above described efforts were made, removing the survey duplicates (n=775) and survey incompletes (n=184), 221 (82 from mail mode and 139 from in-person mode) surveys still had age missing or invalid. These were excluded from the combined final dataset (n=11,912).

Seven age groups are presented in this data book. The groups are: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75 and older. Among the 11,143 survey respondents presented in this data book, 71 cases that were assigned the age group "65 and older" are excluded from reporting by age due to lack of information to place them in either age 65-74 or age 75 and older.

Gender

Gender was assessed by the questions F1 and F2:

F1. Are you...
- ○ Male
- ○ Female

F2. Do you consider yourself to be transgender?
- ○ Yes
- ○ No

Several steps were taken to reduce the number of missing and potential data processing errors for question F1. Of 13,093 surveys that were received, 268 did not complete question F1. The following survey questions were used to impute those missing responses:

- Hypertension during pregnancy (A5a),
- Diabetes during pregnancy (A5b),
- Gender specific binge drinking question (C22).

After reviewing responses to the above three questions, 178 surveys were assigned a response to F1. After removing the survey duplicates (n=775), survey incompletes (n=184), and cases where both F1 and age were

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missing (n=12), 17 surveys still had gender missing. All but one were kept in the final dataset and were randomly assigned with a F1 response to calculate statistical weight. One case was excluded from the final dataset (n=11,912) since many other items in the last section were also missing.

With that, the 11,143 sample used for this data book, 14 cases were missing a response to F1 and were excluded for data reporting.

Of 11,143 respondents represented in this data book, 98 self-identified as transgender. Of those, just over half (54%, n=53) were from the mail sample, and 46% (n=45) were the non-respondent conversions and sample replacements from in-person sample. Survey results among those who identified as transgender were examined for all questions in the survey, and overall, results did not meet criteria for statistical reliability (Relative Standard Error >30%)[5]. As a result, results for the transgender population have not been reported in the data book. In consultation with key stakeholders, the category "Transgender" is recognized as a gender category in the report with suppressed results due to low statistical reliability. Transgender results are included, along with those individuals who self-identified as gay, lesbian, and bisexual in the category "LGBT self-identified", consistent with the GLAAD publication: *Ally's Guide to Terminology: Talking about LGBT People and Equality*[6].

LGBT self-identity

Respondents were asked to check one response category to represent their sexual orientation via question F3.

F3. Do you consider yourself …..?
- ○ Heterosexual or straight
- ○ Lesbian or gay
- ○ Bisexual

In case those respondents checked more than one response category, a trumping rule was used to guide data entry: the highest priority included bisexual, then lesbian or gay, and then, heterosexual or straight.

In this data book, gay, lesbian and bisexual respondents are combined along with transgender respondents in the category "LGBT self-identified", consistent with the GLAAD publication: *Ally's Guide to Terminology: Talking about LGBT People and Equality*[9].

Race and ethnicity

Race and ethnic categories used for this databook were derived from the answers to the following 2 questions:

F6. Are you Hispanic or Latino/a?
- ○ Yes
- ○ No

F7. Which of the following do you consider yourself?
(MARK ALL THAT APPLY)
- ☐ White
- ☐ Black or African American
  - If Black or African American, are you...?
    - ☐ African American
    - ☐ Somali, Oromo, Ethiopian, or from another East African country
    - ☐ Liberian, Nigerian, or from another West African country
    - ☐ Other, specify _____
- ☐ Asian or Asian American
  - If Asian or Asian American, are you...?
    - ☐ Hmong, Cambodian, Laotian, Thai, Vietnamese or Burmese,
    - ☐ Other, specify _____
- ☐ American Indian or Alaska Native
- ☐ Native Hawaiian or other Pacific Islander
- ☐ Other, specify _____

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Race and ethnicity are also key demographic variables for this data book. Key data cleaning and recode steps included:

- Data scan "spill over" check
  - F7 is a "CHECK ALL THAT APPLY" question. For response categories with check boxes that were printed too close to each other, they are highly susceptible to have "spill over" errors via scanning. For example, a white respondent who checked "white", scanner might have picked "Black or African American" as "checked" as well due to minor stray mark. Survey pre-scanning aimed to spot any stray mark and to white it out. However, scanning "spill over" due to subtle stray mark, still exits.

  - There are four neighboring response check box pairs. Of 13,093 surveys returned, 542 surveys have at least one pair of neighboring race categories scanned in as checked. All 542 paper surveys were pulled out to be checked and verified. Two-thirds (69%) of these checked pairs were found to have "spill over" errors and respective correction in data were made.

- Open-ended text coding and race group designation Question F7 had three text fields for respondents to write in. There were 702 text strings entered. These text strings were coded according to standard protocol. Then, these race codes were consolidated into major race codes that aligned with question F7.

- In the final race group designation, coded text data from the three open text fields were used only if none of the five major race groups was checked, or if only one race group checked, but text coded race group differs from the checked race.

For this data book, health indicators are reported for five major racial and ethnic groups, and three sub-race groups. Sample size for each of these groups is summarized in Table E.

Table E. Sample size for reported racial/ethnic groups

Race/Ethnicity	**N**	**%**
Hispanic	550	4.9%
Non-Hispanic		
American Indian or Alaska Native	226	2.0%
Asian	367	3.3%
Southeast Asian	174	
Black or African American	1,698	15.2%
Foreign-born	457	
US-born	1,148	
Unknown	93	
White		71.2%
Groups with small sample size and not reported separately	287	2.6%
Blank, unknown	79	0.7%
Total	11,143	100.0%

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Special notes on race and ethnicity groups and subgroups include:

- Hispanic ethnicity and race are mutually exclusive. If a respondent who self-identified with Hispanic ethnicity, and at the same time, checked one or more race, they were classified as "Hispanic" only.

- The major race groups listed in table are the primary race that survey respondents checked. Anyone who checked two or more races were categorized in "multiracial" groups, which is not reported.

- One exemption to the above rule was for American Indian or Alaska Native. Of the 11,143 respondents represented in this data book, 102 respondents checked their race as American Indian or Alaska Native only. Consequently, a decision was made to expand the definition of American Indian/ Alaska Native to those who checked American Indian or Alaska Native and also checked only other race. Using this definition, the American Indian or Alaska Native sample size is 226 respondents.

- Southeast Asian are those respondents who indicated they were Hmong, Cambodian, Laotian, Thai, Vietnamese or Burmese.

- The two sub-groups of foreign-born or US-born black or African American, were derived from their response to Question F10.

F10. Were you born in the United States?

○ Yes → GO TO QUESTION F12
○ No

The cases of US-born black and foreign-born black do not add up to total of black or African American group. This was due to 93 cases who did not answer question F10 and as a result they are excluded from the subgroup report.

Household Income

Household income was measured by Federal Poverty Level (FPL). Reporting categories include under 200 percent FPL as well as at or above 200 percent FPL. For those under 200 percent FPL, data were further divided into less than 100 percent FPL and 100-199 percent FPL. Their reporting categories were derived from the answers to survey questions on household income and household size, and categorized using 2017 FPL5.

Data on household size was the sum of responses from three categories under Question F9.

F9. INCLUDING YOURSELF, how many adults and children live in your household?

☐ Number of adults age 18 or older (INCLUDING YOURSELF)

☐ Number of children age 0-5

☐ Number of children age 6-17

The number of adults in a household were a critical factor in the statistical weight calculation. Special efforts were made to reduce potential data error, correcting invalid values, and imputing those that were missing. Of the 13,093 surveys returned, 139 had household sizes that were exceptionally large, such as a size of ten or more, or seven or more adults in the same household. To make needed corrections, these responses were checked manually and the address was entered in a google search to determine the housing type.

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Additionally, a small percentage of respondents left "number of adults in the household" blank or entered "0." A simple imputation was performed to designate a new value for the number of adults living in the household for these respondents using the following logic:

- If value was missing or 0, the designated value was 1,
- If the value was 1 and the respondents reported being married, living with a partner in a marriage-like relationship, the designated value was 2.

To get the measurement for household income, survey respondents were asked (F8):

F8. Please tell us your annual household income in 2017 from all earners and all sources, before taxes.

Remember, your responses are confidential.

○ $10,000 or less	○ $41,001 – 49,000
○ $10,001 – 15,000	○ $49,001 – 58,000
○ $15,001 – 24,000	○ $58,001 – 66,000
○ $24,001 – 32,000	○ $66,001 – 74,000
○ $32,001 – 41,000	○ $74,001 or more

The income level ranges listed in F8 were designed to capture data for three levels of FPL classification, and were guided by the 2017 Federal Poverty Guideline[11] (Table F) with more detailed income levels for low income.

Table F. 2017 Federal Poverty Guidelines

Household size	100% FPL	200% FPL*
1	$12,060	$24,120
2	$16,240	$32,480
3	$20,420	$40,840
4	$24,600	$49,200
5	$28,760	$57,660
6	$32,960	$65,920
7	$37,140	$74,280
8	$41,320	$82,640
9	$45,500	$91,000
10	$49,680	$99,360

Respondents were instructed to check only one option. If respondents checked two response categories, one was selected via systematic randomization using a randomization sheet. If three response categories were checked, the mid-point was selected. If 4 or more categories were marked, the response was marked as invalid.

There were a few respondents who checked two or more income levels. In the mail survey pre-scan process, a conservative approach was used to check only the lower household income category to be scanned in for data reporting.

These income categories were then converted to FPL, either under 200 percent FPL (<200% FPL) or at or above 200 percent FPL (≥200% FPL) according to 2017 FPL and household size. The household size was capped at ten in the poverty level calculation. Details on the classification are illustrated in Table G.

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Table G Classification of household income measured by 2017 Federal Poverty Guidelines (FPL)

< 100% FPL 100-199% FPL ≥ 200% FPL

Household income / Household size	<10,000 (1)	$10,001-$15,000 (2)	$15,001-$24,000 (3)	$24,001-$32,000 (4)	$32,001-$41,000 (5)	$41,001-$49,000 (6)	$49,001-$58,000 (7)	$58,001-$66,000 (8)	$66,001-$74000 (9)	$74,001 or above (10)
1	<100%	100-199%	100-199%	≥200%	≥200%	≥200%	≥200%	≥200%	≥200%	≥200%
2	<100%	≤100%	100-199%	100-199%	≥200%	≥200%	≥200%	≥200%	≥200%	≥200%
3	<100%	≤100%	100-199%	100-199%	100-199%**	≥200%	≥200%	≥200%	≥200%	≥200%
4	<100%	≤100%	≤100%	100-199%	100-199%	100-199%	≥200%	≥200%	≥200%	≥200%
5	<100%	≤100%	≤100%	100-199%	100-199%	100-199%	100-199%**	≥200%	≥200%	≥200%
6	<100%	≤100%	≤100%	*≤100%*	100-199%	100-199%	100-199%	100-199%**	≥200%	≥200%
7	<100%	≤100%	≤100%	≤100%	100-199%	100-199%	100-199%	100-199%	100-199%	≥200%
8	<100%	<100%	<100%	<100%	<100%	100-199%	100-199%	100-199%	100-199%	≥200%
9	<100%	<100%	<100%	<100%	<100%	100-199%	100-199%	100-199%	100-199%	≥200%
10	<100%	<100%	<100%	<100%	<100%	<100%	100-199%	100-199%	100-199%	≥200%

Among the 13,093 surveys returned, 715 (or 5.5%) did not answer the household income question. For these respondents, if they checked the box for survey question B1a or they answered "Yes" to survey question E6 (see below), they were classified as under 200% FPL. (The income eligibility requirement for receiving MFIP, WIC or Food Support is below 200 percent FPL). As a result, 208 additional respondents were classified as under 200 percent FPL.

B1. Do you currently have any of the following types of health insurance? (MARK ALL THAT APPLY)

☐ Health insurance or coverage through your employer or your spouse/partner, parent, or someone else's employer

E6. During the past 12 months, have you or anyone in your household received Medical Assistance (MA), food support (e.g., food stamps, or SNAP), WIC, or cash assistance such as MFIP or General Assistance (GA)?

○ Yes
○ No
○ Don't know

The classification of household income measured by FPL for the 11,143 sample used for this report is illustrated in Table H. A small proportion (3.4%) of the sample had household income missing or invalid.

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Table H. Number of respondents by household income (unweighted)

Household income	N	Percent
<200% of FPL	**3940**	35.3%
<100% of FPL	2058	-
100-199% of FPL	1749	-
≥ 200 of FPL	**6828**	61.3%
FPL unknown	375	3.4%
Total	11,143	100.0%

One special note for Table H is that cases of two subcategories for these under 200 percent FPL do not add to 3,940. This is due to the 133 surveys with income missing that were able to be imputed as under 200 percent FPL, but were not able to be classified under either of the two subgroups of under 200 percent FPL.

Education

Educational level of survey respondents was obtained by asking question F5.

F5. What is the highest grade or year of school you have completed?
- ○ Less than high school
- ○ High school graduate or GED
- ○ Some college, associate's degree or vocational/technical/business school
- ○ Bachelor's degree or higher

Respondents were instructed to check only one option. Among cases where respondents checked two or more options, the highest educational level was selected as the valid response.

Of 11,143 sample used for this report, 103 respondents (or 0.9%) did not answer this question and were excluded when data was reported by education.

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Housing insecurity

Housing insecurity was derived from survey responses to the following two questions:

E8. During the past 12 months, did you or your family miss or delay a rent or mortgage payment because you did not have enough money?
- ○ Yes
- ○ No

E9. During the past 12 months, how often have you stayed in a shelter, somewhere not intended as a place to live, or someone else's home because you had no other place to stay?
- ○ Never
- ○ Once
- ○ Twice
- ○ Three or more times

Respondents who answered "yes" to Question E8 or "once" or more often to Question E9 were classified as having experienced housing insecurity.

Disability status

Disability status was classified based on the response to the survey question A8.

A8. Are you limited in any activities because of physical, mental, or emotional problems?
- ○ Yes
- ○ No

Frequent mental distress

All survey respondents were asked:

A3. Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

☐ Number of days

Respondents who reported 14 or more days during the past 30 days that their mental health was not good were classified as having frequent mental distress.

Most data tables in this data book report survey responses from a single survey question and report all response options. However, there are some exceptions.

- For some tables, while only one survey question was used, the indicators reported combine two or three response options. This is done either due to column space limitations or because the percentages for some response options are very low and combining response options increases the meaning of the indicator.

- Some tables report data that are coded specifically or calculated from two or more survey questions, and details are described in Table I.

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Table-specific Technical Notes

Table I. Table-specific technical notes

Table	Topic	Table-Specific Technical Notes
1	HRQOL- commonly used indicators	Very good or excellent health - refer to Table 2 for the question used. Poor or fair health - refer to Table 2 for the question used. Frequent physical health distress - refer to Table 3 for the question used. The respondents who reported 14 or more days that their physical health was not good are classified as having frequent physical distress. Frequent mental distress - refer to Table 4 for the question used. The respondents who reported 14 or more days that their mental health was not good are classified as having frequent mental distress. NA: The result is not applicable as reporting category and health indicator are the same.
3 to 4	Unhealthy physical health days; Unhealthy mental health days	Valid range is 0 to 30 days. A value of 31 days is coded as 30. A value exceeding 31 days is classified as invalid.[12]
5	High risk of depression, PHQ-2	High risk of depression is a scale derived from two survey questions. *A4. During the past two weeks, how often have you been bothered by any of the following problems?* *a. Little interest or pleasure in doing things* *O Not at all* *O Several days* *O More than half the days* *O Nearly every day* *b. Feeling down, depressed, or hopeless* *O Not at all* *O Several days* *O More than half the days* *O Nearly every day* These two survey questions are called Patient Health Questionnaire-2, (PHQ-2). The PHQ-2 includes the first 2 items of the PHQ-9. For each item, response to "Not at all," "Several days," "More than half the days," and "Nearly every day," are scored as 0, 1, 2, and 3, respectively. The PHQ-2 score can range from 0 to 6. A score of 3 points or more on this version of the PHQ-2 has a sensitivity of 83 percent and a specificity of 92 percent for major depression disorders code.[13]
6	Hypertension	The response options for the survey questions used for Table 6 are: *O Yes* *O Yes, but only during pregnancy* *O Borderline high or pre-hypertensive* *O No* The category *Yes, but only during pregnancy* is not reported in these data tables due to very low percentages.

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Table	Topic	Table-Specific Technical Notes
7	Diabetes	The response options for the survey questions used for Table 7 are: *O Yes* *O Yes, but only during pregnancy* *O Pre-diabetes or borderline diabetes* *O No* The category *Yes, but only during pregnancy* is not reported in these data tables due to very low percentages.
8	Body weight, Body Mass Index (BMI)	*Body mass index* (BMI) is calculated from self-reported weight and height using the standard formula: BMI = (weight in kilograms) ÷ (Height in meters)^2 or BMI = 703 * (weight in pounds) ÷ (Height in inches)^2. When reporting weight, female respondents who were pregnant at the time of the survey were asked to provide their weight before they were pregnant. Classification of weight status by BMI according to national guidelines are: *underweight* (BMI < 18.5); *normal weight* (BMI = 18.5 to 24.9); *overweight* (BMI = 25.0 to 29.9) and *obese* (BMI ≥ 30.0).[14] Valid value range for height is 36 to 95 inches; Valid range for weight is 50 to 650 pounds; and for BMI is 12 to 99. This is consistent with BRFSS 2014 data coding guidelines.[15]
9	Disability	NA: The result is not applicable as reporting category and health indicator are the same.
10	ADL disability	The indicator/measure is aka activity of daily living (ADL) disability.
11	IADL disability	The indicator/measure is aka instrumental activity of daily living (IADL) disability.
12	ADL or IADL disability	ADL/IADL disability reported in this table is derived from ADL disability reported in Table 10 and IADL disability reported in Table 11.

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Table	Topic	Table-Specific Technical Notes
13, 14	Healthcare coverage, current status	**Acronyms used in the questions**: CHAMPUS: Civilian Health and Medical Program of the Uniformed Service. MNSure: a marketplace where Minnesotans can shop, compare and choose health insurance coverage that meets their needs, and is the only place where consumers can qualify for financial help either through federal tax credits or through MinnesotaCare and Medical Assistance. TRICARE: formerly known as CHAMPUS, is a health care program of the United States Department of Defense Military Health System. Tricare provides civilian health benefits for U.S Armed Forces military personnel, military retirees, and their dependents, including some members of the Reserve Component. There are other surveys that estimate insurance status at the state and federal level, including the Minnesota Health Access Survey and the American Community Survey. Due to differences in question format and coding of responses, specific caution is advised in comparing SHAPE results to other estimates of insurance status. The public use data file for this project contains original as well as created variables used for this data book and will be available upon request at a later date. Data on health insurance coverage was derived from B1, a ten-item survey question. This is a "CHECK ALL THAT APPLY" question. B1. Do you currently have any of the following types of health insurance? O Health insurance or coverage through your employer or your spose/partner, parent, or someone else's employer O Health insurance or coverage bought directly by yourself or your family (not through an employer) O Indian or Tribal Health Service O Medicare O Medicaid, Medical Assistance (MA), or Prepaid Medical Assistance Program (PMAP) O MinnesotaCare O Insurance through MNSure O CHAMPUS, TRICARE, or Veteran's benefits O Other health insurance or coverage (please specify): O NO health insurance coverage Data cleaning and recoding steps for B1 included : • Data scan "spill over" check The check boxes for many response items were printed very close to each other and were highly susceptible to have "spill over" errors via scanning. Of 13,093 surveys returned, 880 checked at least a pair of neighboring response categories. All these 880 surveys were pulled out to be checked and verified. Close to 40% of these checked pairs were found to have "spill over" errors and respective correction in data were made. • Open-end text coding and coding consolidation Over a thousand of respondents (n=1,232) checked "other" as health insurance coverage. Of them, 1,211 entered text strings to specify. These text strings were coded according to standard protocol, and they were grouped into one of the follow 4 groups.

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Table	Topic	Table-Specific Technical Notes
13, 14	Healthcare coverage, current status	(1) Name of insurance providers without details on coverage type (65%), (2) Name of supplemental insurance without details on coverage type (21%) (3) Actual coverage types that were listed in the B1 (11%) (4) Invalid, not related to health insurance (3%). In most cases if the respondents checked "other", but also checked one more coverage type, the actual coverage type they checked trumped. • Insurance coverage groups Responses from B1 were then summarized into the following four insurance coverage groups. (1) Private insurance is coverage through any of the following: O Health insurance or coverage through your employer or your spouse/partner, parent, or someone else's employer O Health insurance or coverage bought directly by yourself or your family (not through an employer) (2) Public health insurance is coverage through any of the following: O Medicare O Medicaid, Medical Assistance (MA), or Prepaid Medical Assistance Program (PMAP) O MinnesotaCare O CHAMPUS, TRICARE, or Veteran's benefits (3) Insured, type unknown is classified when respondents checked any of the following only: O Insurance through MNSure O Other health insurance or coverage (4) Uninsured is classified when respondents checked any of the following only: O NO health insurance coverage O Indian or Tribal Health Service Some respondents had checked multiple coverage categories. Trumping rule was applied to follow the priority order: public coverage first followed by private, insured with unknown coverage type, and then, uninsured. • Coding effort to reduce those insured but type unknown .

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Table	Topic	Table-Specific Technical Notes
13, 14	Healthcare coverage, current status	Special coding efforts were made for those that checked MNsure only or those that checked "other" only, but their insurance coverage type is unknown. Coding decision for these cases were based on the review of other survey items, follow the suggestions from Hennepin county Medical Assistant subject matter experts. Details included: (1) For those aged 65 and older, they were assigned as having Medicare; (2) For those aged under 65 and those that provided household size and income, they will be assigned as having MA, Medicaid, PMAP) or MN Care based on the income guideline; (3) County MA has it designated health plans. For the cases where income fits MA or MN Care, but providers are not on the list, they were assigned to "insured, type unknown" category; (4) The cases that list "discount" health service were coded as uninsured.
15	Healthcare coverage in the past 12 months	Some respondents reported that they were *currently uninsured* and also reported that they were *insured the entire year.* These cases are included in the *insured only part of the year* category.
16	Healthcare cover-age-difficulty to pay	The complete response option for *Not applicable* printed in the survey is *Not applicable: I do not have insurance with premiums, co-pays, or deductible.*
20	Mental health care need and service utilization	The survey question includes a clarifying statement: *A health professional here could be a doctor, a psychiatrist, a psychologist, a therapist, or a counselor.*
22	Prescription - cut/skip dose due to cost	The category "Yes", is only reported among those that were prescribed any medication. Those that selected "I was not prescribed any medication", were removed from the denom-inator.
24	Health information	The category "Yes", is only reported among those who saw a healthcare provider. Those that selected "I did not see any health care provider", were removed from the denominator.
25	Respect by health care providers	The category "Yes", is only reported among those who saw a healthcare provider. Those that selected "I did not see any health care provider", were removed from the denominator.
26	Dietary intake sum-mary	*Having 2 servings or more a day of fruits* - refer to Table 28 for the question used. *Having 3 servings or more a day of vegetables* - refer to Table 27or the question used. *Having 5 servings or more a day of fruits, fruit juice and vegetables* - refer to tech notes for Table 31. *Having sugar-sweetened beverage less than 1 time a day or never having it:* - the measure is derived from four SSB questions reported in Table 32 to 35. If respondents checked "*never or less than 1 time per week* " or having "*1 time per week*" or " 2-4 times per week" or "5-6 times per week" for all of four SSB question, they will be classified as *Having sugar-sweetened beverage less than 1 time a day or never having it.* One special note to data users: SSB questions were only asked in the classic mail sample (N=8810) and were not asked for the respondents reached via in-person. Therefore, data run was then used differed set statistical weights.
27	Servings of vegeta-bles yesterday	This survey question included a clarifying statement: *A serving of vegetables - not including french fries - is one cup of salad greens or a half cup vegetables.* A value exceeding 12 is classified as invalid.
28	Servings of fruit yes-terday	The survey question included a clarifying statement: A *serving of fruit is one medium sized piece of fruit or a half cup of chopped, cut or canned fruit.* A value exceeding ten is classified as invalid.

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Table	Topic	Table-Specific Technical Notes
29	Servings of fruit juice yesterday	The survey question included a clarifying statement: A *serving of 100% fruit juice is 6 ounces.* A value exceeding ten is classified as invalid.
30	Servings of fruit and vegetables yesterday	"*Total servings of fruits and vegetables eaten yesterday*" were calculated by adding the answers from two questions: *C1.* How many servings of vegetables did you have yesterday? *C2. How many servings of fruit juice did you have yesterday?* A value exceeding 20 is classified as invalid.
31	Servings of fruit, fruit juice and vegetables	"*Total servings of fruit, fruit juice and vegetables eaten yesterday*" were calculated by adding the answers from three questions: *C1. How many servings of vegetables did you have yesterday?* *C2. How many servings of fruit did you have yesterday?* *C3. How many servings of fruit juice did you have yesterday?* A value exceeding 20 is classified as invalid.
32 to 35	Servings of sugar sweetened beverages (SSB)	Response options for each of the questions are: *Never or less than 1 time per week, 1 time per week, 2-4 times per week, 5-6 times per week, 1 time per day, 2-3 times per day and 4+ times per day.* If respondents checked 1 time per week or 2-4 times per week or 5-6 times per week, they were classified as "1 time/week to <1 time/day". If respondents checked 1 time per day, 2-3 times per day or 4+ times per day, they were classified as ">=1 time/day". *Also see summary measure of SSB in Table 26.* One special note to data users: SSB questions were only asked in the classic mail sample (N=8810) and were not asked for the respondents reached via in-person. Therefore, data run was then used differed set statistical weights.
36	Physical activity guidelines	*Met moderate physical activity guideline*- respondents reported engaging in moderate leisure time physical activity at least 30 minutes for 5 or more days per week. This is equivalent to meet 150 minutes aerobic activity guideline through leisure time. This indicator measures Healthy People 2020 Objective PA-2.1.[16,17] *Met vigorous physical activity guideline*- respondents reported engaging in vigorous leisure time physical activity at least 20 minutes for 3 or more days per week. This measure was the Healthy People 2000 Objective.[18] Recently the objective was change to 75 minutes of vigorous physical activity. [16,17] However, the SHAPE 2018 survey question is difficult to measure that as it did not actually ask duration of physical activity. Data user should be cautious in using this data to compare to the Healthy People 2020 objective. *Met either moderate or vigorous physical activity guideline*- met either moderate or vigorous physical activity guidelines described above.
38	Moderate physical activity	A clarifying statement for moderate physical activity is printed next to survey question: *Moderate activities cause only light sweating or a small increase in breathing or heart rate.* Valid range is 0 to 7 days. A value reported as minutes or exceeding 7 days is classified as invalid. Any portion day reported, such as 0.5 day, 2/3 day, will not counted as a day.

Technical Notes

Table	Topic	Table-Specific Technical Notes
39	Vigorous physical activity	A clarifying statement for vigorous physical activity is printed next to survey question: *Vigorous activities cause heavy sweating or a large increase in breathing or heart rate.* Valid range is 0 to 7 days. A value reported as minutes or exceeding 7 days is classified as invalid. Any portion of a day reported, such as 0.5 day, 2/3 day, will not be counted as a day.
40	Walk to and from places	Valid range is 0 to 7 days. A value reported as minutes or exceeding 7 days is classified as invalid.
41	Bike to and from places	Valid range is 0 to 7 days. A value reported as minutes or exceeding 7 days is classified as invalid.
42	Summary measure-Alcohol use	Alcohol use is measured by three survey questions: C9, C10 and C11. *C9. During the past 30 days, on how many days did you have at least one drink of any alcoholic beverage? ___ number of days* *C10. During the past 30 days, on the days when you drank, about how many drinks did you have on average? __ number of drinks* *C11. Considering all types of alcoholic beverages, how many times during the past 30 days did you have...* *(FOR FEMALES) 4 or more drinks on the occasion ? ___ number of times* *(FOR MALES) 5 or more drinks on the occasion ? ___ number of times* Respondents were provided with a clarifying statement on the definition of one alcoholic drink: *For the next questions, consider a drink of alcohol to be a can or bottle of beer or malt beverage, a glass of wine or wine cooler, a shot glass of liquor, or a mixed drink.* *Current drinking* is defined as having had at least one drink of any alcohol or alcoholic beverage on one or more days during the past 30 days (C9). There were a few respondents who reported 0 days to question C9 or left it blank, but responded question C10 with one or more drinks or question C11 with one or more times. These respondents are classified as current drinkers. Definition for *heaving drinking* is gender specific: having more than 1 drink per day (or 8 or more drinks a week) for females; having more than 2 drinks per day (or 15 or more drinks a week) for males. This is an average alcohol consumption during the past 30 days. Definition for *binge drinking* is also gender specific: having 4 or more drinks on one occasion at least once during the past 30 days for females, having 5 or more drinks on one occasion at least once during the past 30 days for males. *Excessive drinking* is defined as engaged in either heavy drinking or binge drinking during the past 30 days.
43	Current alcohol use - day	Valid range for days is 0 to 30. Any partial day, such as "half day" or "1/3 day", was counted as a day. There are a few respondents who are ***current drinkers*** (See tech notes for Table 42), but reported 0 days to question C9 or left it blank. These respondents are included in the 1-2 days category in this table.
44	Current alcohol use - drinks	Valid range for number of drinks per day is 0 to 90. Any portion of a drink, such as 0.5 drink, 1/3 drink, will not be counted as a drink. There are a few respondents who are current drinkers but reported 0 drinks to question C10 or left it blank. These respondents are included in the 1-2 drinks category in this table.
45	Current alcohol use - binge	Valid range for times is 0 to 30 times. Any portion value entered, such as 0.4 times or 0.5 times, will be rounded. Those values <0.5 will not be counted as one time and those >=0.5 will be counted as one time.

Technical Notes

Table	Topic	Table-Specific Technical Notes
46	Currently smoking	*Currently smoking:* a person who is either an *everyday, smoker* or *someday smoker.* See tech notes for Table 47 for more detail.
47	Current smoking status	*Current smoking status* is derived from the responses to two questions: *C14. Have you smoked at least 100 cigarettes in your entire life?* *C15. Do you now smoke cigarettes every day, some days or not at all* *Every day smoker*: a person who has smoked at least 100 cigarettes in his or her lifetime and now smokes cigarettes every day. *Some days smoker*: a person who has smoked at least 100 cigarettes in his or her lifetime and now smokes cigarettes on some days. *Former smoker*: a person who has smoked at least 100 cigarettes in his or her lifetime, but does not smoke now. *Never smoked*: a person who has smoked fewer than 100 cigarettes in his or her lifetime.
48	Cigarette brand	*Currently smoke menthol cigarettes* is among all persons aged 18 and older; whereas menthol is a usual brand of cigarettes is reported among persons 18 and older who are current smokers.
51	Environmental tobacco smoke	This is the only health indicator that is reported for household for this data book. As household is the observation unit, rather than an adult, the household specific statistical weights are used for data reporting in this table.
60	Serious psychological distress	*Serious psychological distress* is a scale derived from six psychological distress questions that are reported in Tables 54 to 59. The Cronbach's alpha for these six-item internal reliability is 0.86. For each of these six questions, the response values of 0 to 4 are assigned to each of the five response categories (with A*ll of the time* assigned 4 and *None of the time* assigned 0). The response values of all six questions are then summed to yield a scale ranging from 0 to 24. A value of 13 or more on this scale was used to define experiencing *serious psychological distress.*[19,20]
68	Housing insecurity	NA: The result is not applicable as reporting category and health indicator are mostly the same. See general technical notes on the definition for housing insecurity.
69	Homelessness	NA: The result is not applicable as reporting category and health indicator are mostly the same. See general technical notes on the definition for housing insecurity.
73	Self-identified LGBT	Survey questions that gather data for this table are: F2. Do you consider yourself to be transgender? O Yes O No F3. Do you consider yourself....? O Heterosexual or straight O Lesbian or gay O Bisexual Those that self-identified with LGBT, stands for lesbian, gay, bisexual or transgender are those who checked Yes for F2 or those that checked Lesbian or gay, or bisexual for F3. NA: The result is not applicable as reporting category and health indicator are the same.

Appendix C SHAPE 2018 adult survey questionnaire

SHAPE 2018 adult survey questionnaire

1998-2018
SHAPE 2018
Celebrating 20 years of health trends

Adult Survey

for an adult aged 18 or over

Dear Hennepin County resident:

Your household was randomly selected to participate in SHAPE 2018, a voluntary health survey that helps improve the health of local residents. Your participation in the survey and your responses are very important. **SHAPE 2018 is anonymous** (we don't ask for anyone's name) and your responses are combined with those of hundreds of other residents taking the survey.

The SHAPE 2018 survey asks about your health, diet, exercise, neighborhood, and ability to get health care. It will take about 15 minutes to complete.

To complete the survey, please follow these steps:

1. **Ask the adult (age 18 or older) with the next birthday** in your household to take the survey. (This helps us get responses from adults of all age groups).
2. **Complete the paper survey** and return by mail in the enclosed prepaid return envelope.

SHAPE 2018 is sponsored by Hennepin County Public Health. Your responses will help us identify the health concerns and needs of adults in Hennepin County. More information is available at www.hennepin.us/SHAPE. If you have questions about the survey, call 612-543-3034 or email SHAPE@hennepin.us.

Thank you for taking the time to participate in this important project.

Your health matters. Your answers matter.

Sincerely,

Susan Palchick

Public Health Director

Survey Instructions

- Please use #2 pencil or blue or black pen to complete this survey.
- Do not use red pencil or ink
- Do not use Xs or check marks to indicate your responses.
- Fill response ovals completely with heavy, dark marks

Hennepin County
Public Health

SHAPE 2018 adult survey questionnaire

SHAPE 2018 Adult Survey

Survey of the Health of All the Population and the Environment

Please complete the entire survey, answering every question as honestly as you can. Your responses are confidential.

SECTION A. GENERAL HEALTH AND HEALTH CONDITIONS

A1. In general, would you say your health is ... ?
- ○ Excellent
- ○ Very good
- ○ Good
- ○ Fair
- ○ Poor

A2. Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

[ ] Number of days

A3. Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

[ ] Number of days

A4. During the past two weeks, how often have you been bothered by any of the following problems?

a. Little interest or pleasure in doing things
- ○ Not at all
- ○ Several days
- ○ More than half the days
- ○ Nearly every day

b. Feeling down, depressed, or hopeless
- ○ Not at all
- ○ Several days
- ○ More than half the days
- ○ Nearly every day

A5. Have you ever been told by a doctor, nurse, or other health professional that you had any of the following?

a. Hypertension, also called high blood pressure
- ○ Yes
- ○ Yes, but only during pregnancy
- ○ Borderline high or pre-hypertension
- ○ No

b. Diabetes or sugar disease
- ○ Yes
- ○ Yes, but only during pregnancy
- ○ Pre-diabetes or borderline diabetes
- ○ No

A6. How tall are you without shoes?

[ ] Feet [ ] Inches

OR [ ] Centimeters

A7. How much do you weigh without shoes?
If you are a female and are currently pregnant, please provide your weight before you were pregnant.

[ ] Pounds OR [ ] Kilograms

A8. Are you limited in any activities because of physical, mental, or emotional problems?
- ○ Yes
- ○ No

A9. Because of any impairment or health problem, do you need help from another person with personal care needs such as eating, bathing, dressing, or getting around your house?
- ○ Yes
- ○ No

A10. Because of any impairment or health problem, do you need help from another person in handling routine needs such as everyday household chores, business, shopping, or getting around for other purposes?
- ○ Yes
- ○ No

SHAPE 2018 adult survey questionnaire

SECTION B. ACCESS TO HEALTH CARE

B1. Do you currently have any of the following types of health insurance? (MARK ALL THAT APPLY)

- ☐ Health insurance or coverage through your employer or your spouse/partner, parent, or someone else's employer
- ☐ Health insurance or coverage bought directly by yourself or your family (not through an employer)
- ☐ Indian or Tribal Health Service
- ☐ Medicare
- ☐ Medicaid, Medical Assistance (MA), or Prepaid Medical Assistance Program (PMAP)
- ☐ MinnesotaCare
- ☐ Insurance through MNSure
- ☐ CHAMPUS, TRICARE, or Veterans' benefits
- ☐ Other health insurance or coverage (please specify): _____
- ☐ NO health insurance coverage

B2. During the past 12 months, did you have health insurance for the entire year, only part of the year, or were you not insured for the entire year?

- ○ Insured the entire year
- ○ Insured only part of the year
- ○ Not insured for the entire year

B3. During the past 12 months, how difficult has it been for you and your family to pay for health insurance premiums, co-pays, and deductibles?

- ○ Very difficult
- ○ Somewhat difficult
- ○ Not too difficult
- ○ Not at all difficult
- ○ Not applicable: I do not have insurance with premiums, co-pays, or deductibles

B4. During the past 12 months, have you seen a doctor, nurse, or other health professional for your own health?

- ○ Yes
- ○ No

B5. During the past 12 months, have you seen a psychiatrist, psychologist, therapist, counselor, or other mental health professional for your own health?

- ○ Yes
- ○ No

B6. During the past 12 months, was there a time when you needed medical care?

- ○ Yes
- ○ No → GO TO QUESTION B9

B7. Did you delay or not get the care you thought you needed?

- ○ Yes
- ○ No → GO TO QUESTION B9

B8. Was that because of cost or lack of insurance?

- ○ Yes
- ○ No

B9. During the past 12 months, was there a time when you wanted to talk with or seek help from a health professional about stress, depression, a problem with emotions, excessive worrying, or troubling thoughts?
A health professional here could be a doctor, psychiatrist, psychologist, therapist, or counselor.

- ○ Yes
- ○ No → GO TO QUESTION B12

B10. Did you delay or not get the care you thought you needed?

- ○ Yes
- ○ No → GO TO QUESTION B12

B11. Was that because of cost or lack of insurance?

- ○ Yes
- ○ No

B12. When you are sick or need medical care, where do you usually go? (CHOOSE ONLY ONE)

- ○ Doctor's office or clinic
- ○ Hospital emergency room
- ○ Urgent care
- ○ Clinic located in a drug or grocery store
- ○ No usual place

SHAPE 2018 adult survey questionnaire

B13. During the past 12 months, did you skip doses, take smaller amounts of your prescription, or did not fill a prescription because of cost?

- ○ Yes
- ○ No
- ○ I was not prescribed any medication

B14. How long has it been since you last visited a dentist or dental clinic for any reason?

- ○ Within the past year
- ○ Within the past 2 years
- ○ Within the past 5 years
- ○ 5 or more years ago
- ○ Never

B15. During the past 12 months, how often did your health care providers tell or give you information about your health and health care that was easy to understand?

- ○ Always
- ○ Most of the time
- ○ Some of the time
- ○ None of the time
- ○ I did not see any health care provider

B16. During the past 12 months, how often were you treated with respect by your health care providers?

- ○ Always
- ○ Most of the time
- ○ Some of the time
- ○ None of the time
- ○ I did not see any healthcare provider

SECTION C. HEALTHY LIFESTYLES AND BEHAVIORS

C1. A serving of vegetables – not including french fries – is one cup of salad greens or a half cup vegetables. How many servings of vegetables did you have yesterday?

☐ Number of servings

C2. A serving of fruit is a medium-sized piece of fruit or a half cup of chopped, cut or canned fruit. How many servings of fruit did you have yesterday? (Do not include fruit juice)

☐ Number of servings

C3. A serving of 100% fruit juice is 6 ounces. How many servings of fruit juice did you have yesterday?

☐ Number of servings

C4. During the past 30 days, other than your regular job, did you participate in any physical activity or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

- ○ Yes
- ○ No

C5. During an average week, other than your regular job, how many days do you get at least 30 minutes of moderate physical activity?

Moderate activities cause only light sweating and a small increase in breathing or heart rate.

☐ Number of days

C6. During an average week, other than your regular job, how many days do you get at least 20 minutes of vigorous physical activity?

Vigorous activities cause heavy sweating and a large increase in breathing and heart rate.

☐ Number of days

C7. During an average week, how many days do you WALK to get to and from places (such as to work, stores, run errands)?

☐ Number of days

C8. During an average week, how many days do you BIKE to get to and from places for exercise or recreation?

☐ Number of days

SHAPE 2018 adult survey questionnaire

For questions C9 to C11, consider a drink of alcohol to be a can or bottle of beer or malt beverage, a glass of wine or a wine cooler, a shot glass of liquor, or a mixed drink.

C9. During the past 30 days, on how many days did you have at least one drink of any alcoholic beverage?

☐ Number of days

C10. During the past 30 days, on the days when you drank, about how many drinks did you have on average?

☐ Number of drinks

C11. Consider all types of alcoholic beverages, how many times during the past 30 days did you have...?

FOR FEMALES: 4 or more drinks on one occasion

☐ Number of times

FOR MALES: 5 or more drinks on one occasion

☐ Number of times

C12. Have you smoked at least 100 cigarettes in your entire life? 100 cigarettes = 5 packs

- ○ Yes
- ○ No → GO TO QUESTION C16

C13. Do you now smoke cigarettes every day, some days, or not at all?

- ○ Every day
- ○ Some days
- ○ Not at all → GO TO QUESTION C16

C14. Is your usual cigarette brand menthol or non-menthol?

- ○ Menthol
- ○ Non-menthol
- ○ No usual brand
- ○ I don't smoke cigarettes

C15. During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

- ○ Yes
- ○ No
- ○ I don't smoke cigarettes

C16. During the past 12 months, have you used other tobacco products such as cigars, pipes, snuff, chewing tobacco, bidis, kreteks, snus, a hookah water pipe, or any other type of tobacco product?

- ○ Yes
- ○ No

C17. Does anyone, including yourself, smoke cigarettes, cigars, or pipes regularly inside your home?

- ○ Yes
- ○ No

C18. Do you currently use electronic cigarettes, such as e-cigarettes, e-hookahs, or vaping pens?

- ○ Every day
- ○ Some days
- ○ Used to, but not now
- ○ Never

SECTION D. HOW YOU FEEL

Questions D1 to D7 ask about how you have been feeling during the past 30 days.

D1. About how often did you feel so sad that nothing could cheer you up?

- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

D2. About how often did you feel nervous?

- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

D3. About how often did you feel so restless or fidgety that you could not sit still?

- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

SHAPE 2018 adult survey questionnaire

D4. About how often did you feel hopeless?
- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

D5. About how often did you feel that everything was an effort?
- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

D6. About how often did you feel worthless?
- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

D7. Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his/her mind is troubled all the time. About how often did you feel this kind of stress?
- ○ None of the time
- ○ A little of the time
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

SECTION E. ABOUT YOUR COMMUNITY

E1. How often are you involved in school, community, or neighborhood activities?
- ○ Weekly
- ○ Monthly
- ○ Several times a year
- ○ About once a year
- ○ Less often than yearly
- ○ Never

E2. How often do you get the social and emotional support you need?
Please include support from any source, such as family, friends, neighbors and/or coworkers.
- ○ Always
- ○ Usually
- ○ Sometimes
- ○ Rarely
- ○ Never

E3. How often do you feel isolated from others?
- ○ Always
- ○ Usually
- ○ Sometimes
- ○ Rarely
- ○ Never

E4. How much do you agree or disagree with the statement? This is a good community to raise children in.
- ○ Strongly agree
- ○ Somewhat agree
- ○ Somewhat disagree
- ○ Strongly disagree

E5. In general, how safe from crime do you consider your neighborhood to be?
- ○ Very safe
- ○ Somewhat safe
- ○ Somewhat unsafe
- ○ Not at all safe

E6. During the past 12 months, have you or anyone in your household received Medical Assistance (MA), food support (e.g., food stamps, or SNAP), WIC, or cash assistance such as MFIP or General Assistance (GA)?
- ○ Yes
- ○ No
- ○ Don't know

E7. During the past 12 months, how often did you worry that your food would run out before you had money to buy more?
- ○ Often
- ○ Sometimes
- ○ Rarely
- ○ Never

SHAPE 2018 adult survey questionnaire

E8. During the past 12 months, did you or your family miss or delay a rent or mortgage payment because you did not have enough money?
- ○ Yes
- ○ No

E9. During the past 12 months, how often have you stayed in a shelter, somewhere not intended as a place to live, or someone else's home because you had no other place to stay?
- ○ Never
- ○ Once
- ○ Twice
- ○ Three or more times

E10. During the past 12 months, how often did lack of transportation keep you from getting places where you needed to go, such as jobs, medical appointments, or shopping?
- ○ Often
- ○ Sometimes
- ○ Rarely
- ○ Never

E11. How often are you in a situation where you feel you are not accepted because of your race, culture, religion, or immigration status?
- ○ At least once a week
- ○ Once or twice a month
- ○ A few times a year
- ○ Once a year or less often
- ○ Never

E12. How often are you in a situation where you feel you are not accepted because of your sexual orientation or gender identity?
- ○ At least once a week
- ○ Once or twice a month
- ○ A few times a year
- ○ Once a year or less often
- ○ Never

SECTION F. ABOUT YOU

The following questions are used to help us understand who responds to the survey. Again, your answers to these and all other questions will remain confidential.

F1. Are you...
- ○ Male
- ○ Female

F2. Do you consider yourself to be transgender?
- ○ Yes
- ○ No

F3. Do you consider yourself .....?
- ○ Heterosexual or straight
- ○ Lesbian or gay
- ○ Bisexual

F4. What is your age?

[ ] Years

F5. What is the highest grade or year of school you have completed?
- ○ Less than high school
- ○ High school graduate or GED
- ○ Some college, associate's degree or vocational/technical/business school
- ○ Bachelor's degree or higher

F6. Are you Hispanic or Latino/a?
- ○ Yes
- ○ No

F7. Which of the following do you consider yourself?
(MARK ALL THAT APPLY)
- ☐ White
- ☐ Black or African American
  - If Black or African American, are you...?
    - ☐ African American
    - ☐ Somali, Oromo, Ethiopian, or from another East African country
    - ☐ Liberian, Nigerian, or from another West African country
    - ☐ Other, specify _____
- ☐ Asian or Asian American
  - If Asian or Asian American, are you...?
    - ☐ Hmong, Cambodian, Laotian, Thai, Vietnamese or Burmese,
    - ☐ Other, specify _____
- ☐ American Indian or Alaska Native
- ☐ Native Hawaiian or other Pacific Islander
- ☐ Other, specify _____

SHAPE 2018 adult survey questionnaire

F8. Please tell us your annual household income in 2017 from all earners and all sources, before taxes.

Remember, your responses are confidential.

- ○ $10,000 or less
- ○ $10,001 – 15,000
- ○ $15,001 – 24,000
- ○ $24,001 – 32,000
- ○ $32,001 – 41,000
- ○ $41,001 – 49,000
- ○ $49,001 – 58,000
- ○ $58,001 – 66,000
- ○ $66,001 – 74,000
- ○ $74,001 or more

F9. <u>INCLUDING YOURSELF</u>, how many adults and children live in your household?

☐ Number of adults age 18 or older (INCLUDING YOURSELF)

☐ Number of children age 0-5

☐ Number of children age 6-17

F10. Were you born in the United States?

- ○ Yes → GO TO QUESTION F12
- ○ No

F11. How many years have you lived in the United States?

☐ Number of years

F12. Are you currently...

- ○ Married or living with a partner in a marriage-like relationship
- ○ Separated, divorced, or widowed
- ○ Never married

BEVERAGE HABITS

F13. How often did you drink the following beverages in the past week?

a. Fruit drinks (such as Snapple, flavored teas, Capri Sun, and Kool-Aid)

- ○ Never or less than 1 time per week
- ○ 1 time per week
- ○ 2-4 times per week
- ○ 5-6 times per week
- ○ 1 time per day
- ○ 2-3 times per day
- ○ 4+ times per day

b. Sport drinks (such as Gatorade or Powerade); these drinks usually do not have caffeine

- ○ Never or less than 1 time per week
- ○ 1 time per week
- ○ 2-4 times per week
- ○ 5-6 times per week
- ○ 1 time per day
- ○ 2-3 times per day
- ○ 4+ times per day

c. Regular soda or pop (include all kinds such as Coke, Pepsi, 7-Up, Sprite, root beer)

- ○ Never or less than 1 time per week
- ○ 1 time per week
- ○ 2-4 times per week
- ○ 5-6 times per week
- ○ 1 time per day
- ○ 2-3 times per day
- ○ 4+ times per day

d. Energy drinks (such as Rockstar, Red Bull, Monster, and Full Throttle); these drinks usually have caffeine

- ○ Never or less than 1 time per week
- ○ 1 time per week
- ○ 2-4 times per week
- ○ 5-6 times per week
- ○ 1 time per day
- ○ 2-3 times per day
- ○ 4+ times per day

Do you have any comments about this survey? Please share your comments in the space below.

Thank you!

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