



Boston Behavioral Risk Factor Surveillance System (BRFSS)

2019 Methodology Report

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I. INTRODUCTION

This report describes survey implementation for the 2019 Boston Behavioral Risk Factor Surveillance System data collection (Boston BRFSS), conducted on behalf of the Boston Public Health Commission (BPHC). The Behavioral Risk Factor Surveillance System (BRFSS) is the largest health-risk behavior database in the world and provides the only nationwide health-risk data in the country. This annual survey, sponsored by the U.S. Centers for Disease Control and Prevention (CDC), is carried out independently by all 50 United States and four territories.

The BRFSS surveys measure the prevalence of specific risk behaviors as well as knowledge of both health risks and benefits. They provide valid national and state-level statistics about important health behaviors, such as tobacco use, the consumption of alcohol, immunization, and cancer screening. The BRFSS also measures public knowledge about the benefits of behaviors such as regular exercise and eating healthy foods. The results of these surveys are used to plan, implement, and evaluate health programs, as well as to better identify high-risk segments of the population for targeted education, outreach, and other types of health promotion and disease-prevention programs.

The Boston BRFSS data focuses on the health of residents in Boston, Massachusetts. The survey focuses on chronic disease prevention efforts within a specific geographical area and on issues such as diabetes, obesity and asthma. The survey also focuses on risk factors that cause these chronic diseases: physical inactivity, poor nutrition and tobacco use.

The BRFSS methodology was designed by the CDC to assure standardization among states that conduct the survey. The Boston BRFSS data collection included many of the BRFSS 2019 core questions, select optional modules, and questions particular to Boston. These data provide city-level information about the prevalence of specific risk behaviors as well as knowledge of both health risks and benefits.

The Boston BRFSS was implemented from March, 2019 through May 2020. Data collection was conducted via telephone surveys with randomly selected adults in randomly selected, telephone-equipped Boston, Massachusetts households. In addition, a sample of cell phone adults residing in Boston was surveyed. The BPHC provided a questionnaire in January of 2019, which was discussed and finalized in March. Once a final English questionnaire was determined, the questionnaire was assembled in Spanish which included using the translation from repeat questions and translating any new questions. The questionnaire was then programmed in English and Spanish. The data collection effort began on May 2, 2019.

II. SAMPLE DESIGN

The target population for the 2019 Boston BRFSS was adults living in households located in the City of Boston. To reach the target population, an overlapping dual frame landline and cellular random digit dial (RDD) sample design was implemented. The dual-frame covers households with at least one landline telephone or at least one cell phone. Adults living in phoneless households, estimated to be about two percent for Boston, are not covered by the dual-frame sample. In total, 751 interviews were completed in the landline sample and 2,250 interviews were completed in the cellular sample.

1. LANDLINE SAMPLE

The landline sample was a list-assisted disproportionately stratified sample. Boston block groups with 10% or more Asian population were further stratified as high Asian and block groups with less than 10% were stratified as low Asian. The list-assisted landline RDD frame was defined as the set of telephone exchanges associated with the high Asian strata or the low Asian strata.

After identifying the telephone exchanges for the two strata, all possible telephone numbers are then divided into blocks (or banks) of 100 numbers. As per the BRFSS protocol, zero-blocks, or 100 blocks without any residential assignments, are excluded from the sampling frame. The remaining 100-blocks, those with at least one residential assignment (or 1+ blocks), comprise the sampling frame. All possible telephone numbers, both listed and unlisted, in 1+ blocks are eligible for selection through RDD with equal probability. Telephone numbers in the high Asian strata were proportionately sampled at a 2:1 ratio relative to numbers in the low Asian stratum.

All possible telephone numbers in the frame were then stratified according to the BRFSS disproportionate stratified sample design (DSS):

- High density–listed telephone numbers in 1+ blocks; and,
- Medium density–unlisted telephone numbers in 1+ blocks.

The two strata are sampled to obtain a probability sample of all households with landline telephones. Numbers in the high density stratum are sampled at a proportionately higher rate than the numbers in the medium density stratum, a 1.5:1 ratio. The disproportionate sampling is accounted for in the weighting (see the description of weighting in section *VIII. Weighting* below). The landline sample for the Boston BRFSS was generated by ICF using Marketing Systems Group (MSG) Genesys software.

1.1 SCREENING

The Boston BRFSS landline phone survey had the following eligibility requirements:

- An adult aged 18 or older,
- Resident of Boston as defined by place of residence and zip code, and,
- Resided in a private residence.

2. CELL PHONE SAMPLE

The cell phone sample was based on telephone exchanges that have their rate centers (the midpoint of the rate area) in the vicinity of the Boston area. The location of the rate center is a rough indicator for the location of survey respondents. The rate centers for the 2019 survey were based on those used for the 2017 survey. We identified all telephone exchanges assigned to these rate centers based on the North American Numbering Plan Administration's Central Office assignment files.

We then stratified the rate centers into high density and medium density based on whether the rate center was inside or outside the Boston city limits (the Brookline rate center was included as in Boston). Within the density strata, we further stratified based on the area code (617, 857, or 781/339.) Refer to Figure 1 for the stratification. All cell phone numbers in active cellular

dedicated 1000-blocks (according to Telcordia®) are eligible for selection. Cell phone numbers in the high density stratum are sampled at a proportionally higher rate than those in the medium density stratum. The disproportionate sampling is accounted for in the weighting.

A final cell phone stratum was the out-of-area numbers. These were the cell phone numbers that had billing zip code in Boston, but did not originate from a Boston area rate center. This sample was selected from Dynata's SmartCell.¹

We selected an oversample of cell phone numbers with a billing address located in block groups that have at least 10% Asian population. The cell phone oversample was selected from Dynata's SmartCell.

FIGURE 1: 2019 BOSTON BRFSS CELL PHONE PHASE 1 STRATIFICATION

Stratum	Frame Size ¹	Phase 1 Sample	Zip Code Match rate ²	% Matched to Boston Zip
1: High density: Boston, Brighton, Brookline, Charlestown, Dorchester, EastBoston, Hyde Park, Jamaica Pl, Roxbury, So Boston				
617	1,135,000	131,510	60%	28%
857	582,000	63,591	40%	49%
2: Low Density: Cambridge, Chelsea, Dedham, Everett, Kingston, Malden, Melrose, Milton, Newton, Quincy, Revere, Saugus, Somerville, Watertown, Weymouth, Winthrop				
617	596,000	51,592	51%	19%
857	136,000	8,582	33%	14%
781/339	270,000	19,431	46%	4%
3: Out-of-Area Boston number	99,402	4,325	N/A	
4: Asian oversample	94,054	7,456	N/A	

Notes: ¹ The frame sizes are based on the available numbers at the time of sample design.

² Due to a sample processing error, the February and March samples were not matched for billing zip code. The entire sample was included in the "unmatched stratum". These months were not included in calculating the match rates.

¹ <https://www.surveysampling.com/about/news/2016/ssi-launches-smart-cell-sample-increasing-incidence-rates/>

Within each strata, we implemented a double sampling for stratification methodology to improve the incidence of locating Boston residents. The stratification was based on matching the cell phone numbers to a database of billing zip codes. The results of the matching identified telephone numbers that matched to a Boston zip code (“match-in”), matched to a non Boston zip code (“match-out”), or did not have a matching record in database (“unmatched”). The two-phase sampling was as follows:

Phase 1. Select a stratified RDD sample of cell phone numbers for each density stratum. Match the sample to determine match status. Within the density strata, substratify the cell numbers as match-in, unmatched, or match-out.

Phase 2. Select a disproportionate sample based on match status by oversampling match-in cases and undersampling unmatched and match-out cases. The match-out cases in the low density stratum were excluded from the sample.

FIGURE 2: 2019 BOSTON BRFSS CELL PHONE PHASE 2 STRATIFICATION

		Phase 1 Sample	Phase 2 Sample	Geographic eligibility
High density rate centers				
617	Matched Boston zip	18,292	18,292	66.3%
	Unmatched	66,597	44,493	35.9%
	Matched to non Boston zip	46,621	18,694	10.8%
857	Matched Boston zip	9,849	9,849	73.2%
	Unmatched	43,325	34,778	48.2%
	Matched to non Boston zip	10,417	5,241	19.1%
Low density rate centers				
617	Matched Boston zip	4,272	4,272	54.8%
	Unmatched	29,400	14,797	20.0%
	Matched to non Boston zip	17,920		N/A
857	Matched Boston zip	332	332	64.5%
	Unmatched	6,159	3,227	27.5%
	Matched to non Boston zip	2,091		N/A
781/339	Matched Boston zip	328	328	60.4%
	Unmatched	11,614	4,807	9.7%
	Matched to non Boston zip	7,489		N/A

2.1 SCREENING

The Boston BRFSS cell phone survey had the same eligibility requirements as the landline survey:

- An adult aged 18 or older,
- Resident of Boston as defined by place of residence and zip code, and,
- Resided in a private residence.

III. QUESTIONNAIRE CONTENT

The Boston BRFSS questionnaire was composed of a mixture of BRFSS core and optional questions from the CDC BRFSS questionnaires and BPHC-added questions. The questionnaire was divided into 24 sections.

An introduction and screening section.

- Twenty-four sections including the topics on:
 - Health Status (4 questions)
 - Sleep (1 question)
 - Health Care Access (7 questions)
 - Oral Health (3 questions)
 - Hypertension & Heart Health (1 question)
 - Diabetes (1 question)
 - Sugar Sweetened Beverages (2 questions)
 - Caregiver (1 question)
 - Tobacco Use (4 questions)
 - Demographics (31 questions)
 - Depression/Anxiety (5 questions)
 - Physical Activity (8 questions)
 - Asthma (3 questions)
 - Falls (2 questions)
 - Alcohol & Drug Use (6 questions)
 - Women's Health (4 questions)
 - Colorectal Cancer Screening (1 question)
 - Food Security (2 questions)
 - Discrimination (4 questions)
 - Social Determinants (5 questions)
 - Disability (3 questions)
 - Adverse Childhood Experiences (4 questions)
 - Physical and Sexual Violence (4 questions)
 - Follow-up (1 question)
- A closing statement.

The questionnaire that was administered to respondents can be found in Appendix B: Questionnaire.

IV. DATA COLLECTION PROTOCOL

A computer-assisted telephone interviewing (CATI) approach was implemented for data collection.

1. INTERVIEWING PROTOCOL

The telephone survey followed all CDC calling protocols, with the exception of the final month of data collection. Please see section *IV.4 Impact of COVID-19 Pandemic on Data Collection* below for more information. CDC calling protocol includes a maximum of 15 call attempts for some types of calls. For the cell phone calling, the protocol is less defined. ICF calls a maximum of eight times for the cell phone numbers. A final disposition was attained when:

- The respondent completed the interview;
- The telephone number was found to be invalid;
- The record reached the maximum number of required attempts per the CDC protocols distributed among three different day-parts as required (15 for landline and eight for cell phone); or,
- The respondent gave a final refusal.

Experienced, supervised personnel conducted the Boston BRFSS interviews using the VOXCO software package. ICF concentrated calls between 9 a.m. and 9 p.m. Monday through Friday, and between 10 a.m. and 9 p.m. on Saturday and Sunday, E.S.T.

The average interview length was 26.5 minutes.

2. CONTACTING RESPONDENTS

The following protocols were followed when contacting households and potential respondents:

Treatment of No Answers. If a call to a sampled telephone number was not answered, the number was repeatedly called at different times, during daytime and evening hours (9 a.m. to 9 p.m. Monday through Friday; 10 a.m. to 9 p.m. Saturday; 1 p.m. to 9 p.m. Sunday), on different days of the week, in a pattern designed to maximize the likelihood of contact with a minimum number of calls. At least 15 contact attempts, over a minimum five-day period (typically 15 days), were made to reach a sampled number. Once any contact was made at a residence, as many calls as necessary were made to reach the selected adult (within the permitted time schedule). For cell phone, it was eight call attempts.

Rings per Attempt. The telephone rang a minimum of five times on each attempt made on a record.

Busy Lines. Busy lines were called back at least twice at 10-minute intervals. If the line was still busy after the third attempt, the number was assigned a “busy” disposition and called during the next shift.

Respondent Selection. Once a household was contacted, an adult was selected for participation in the study. No interview was conducted if:

The adult was:

- Unavailable during the survey period;
- Unable or unwilling to participate; or,
- Did not speak English or Spanish well enough to be interviewed.

A randomly sampled number yielded:

- A business;
- An institution;
- Group quarters; or,
- Other strictly non-residential space.
- The number was an occupant's second residence and his or her stay was less than 30 days.

Language of Interviewing. Interviewing for the Boston BRFSS was conducted in English and Spanish.

Converting Initial Refusals. Protocol for the Boston BRFSS followed the refusal protocol developed for the CDC BRFSS, which requires two refusals by a selected respondent to terminate the record from calling. Once a household or individual initially refused participation, specially trained conversion interviewers contacted them, at least three days later, to encourage participation in the survey.

3. CELL PHONE CALLING PROTOCOLS

ICF developed and institutes best practices when dialing cell phones. These include:

- Hand dialing the number. Due to federal regulations, auto-dialers are not permitted for the conduct of the cell phone sample.
- Using a cell phone screener which asks the respondent if they are in a safe place to conduct the interview (i.e. not driving while holding the phone, out to dinner, or socializing in bar, etc.).
- Offering to schedule a time to callback later, if they are not in a safe place to conduct the interview.
- Offering a toll-free number which the respondent can call to complete the interview with one of ICF's interviewers.
- Asking for a landline number they can be reached at, if they would prefer not to use their cell phone to speak with our interviewers.

These cell phone procedures are necessary to ensure that the respondent is comfortable speaking with us on his/her cell phone and to follow the regulations regarding calling cell phones for research purposes.

4. IMPACT OF COVID-19 PANDEMIC ON DATA COLLECTION

On March 16, 2020, dialing was suspended due to the COVID-19 pandemic. When data collection resumed on May 21, 2020, Boston residents selected for the study were much more receptive to participating. If ICF had followed full CDC dialing protocol on the remaining telephone numbers released for March data collection, the annual targeted completes would have been surpassed. After careful consideration, ICF and BPHC jointly decided to stop data

collection when the annual targets were met. As a result, full dialing protocol was not completed for those records.

V. INTERVIEWER TRAINING

Prior to data collection, interviewers underwent extensive training specific to the Boston BRFSS project. The training, in conjunction with ICF's quality assurance measures (discussed in the next chapter), assured consistent, high-quality interviewing during data collection.

ICF's initial training session for the Boston BRFSS survey focused on the following topics:

- Background, Purpose, and Scope of the Boston BRFSS: use of data and importance of conducting high-quality interviews.
- Sample Overview: a review of quotas, how sample was drawn, random sample, representing the entire population, and dialing protocol.
- Response Rates: methods to increase response rates, such as: the use of answering machine messages, privacy manager options, scheduling call-backs, and the survey verification telephone line (IVR).
- Survey Methodology: interview mode, approximate survey length, proxy interviews (not permitted), language of interviewing, definition of a complete, and incentives.
- Survey Protocols: dates of fielding, day-part attempts, respondent selection and eligibility requirements, reselection, and refusal protocols.
- Overview of the Questionnaire: a review of sections, specific questions, questions with special vocabulary, different response categories and types of questions used, and a glossary of terms.
- Review of Interviewer Frequently Asked Questions (FAQs): a review of the at-a-glance FAQ sheet created for interviewers' reference.
- Telephone Interviewing Techniques: a refresher of interview techniques, addressing refusals, dealing with problem situations, and probing and clarifying.

VI. QUALITY ASSURANCE PROTOCOL AND INTERVIEWER MONITORING

ICF International conducts many quality control activities each month to ensure that the data collected is of the highest quality. In addition to existing quality assurance activities, we have taken the following steps to further improve the quality of the data we collect.

1. QUALITY CONTROL PROCEDURES DURING SURVEY SETUP

ICF programmed the Boston BRFSS questionnaire using a software package that is designed specifically for programming and managing CATI studies.

Upon programming completion, ICF project managers rigorously tested the survey. Testing included:

- Developing scenarios to test all possible paths through the questionnaire;

- Checking frequencies of randomly generated data;
- Verifying frequencies of the data after the first few days of calling;
- Creating an automatic skip-check program (to check live data for errors), written by a staff member other than the CATI programmer, which ran nightly throughout the entire data collection period; and
- Repeating the above tests/quality assurance measures if, at any time, the survey was altered during the fielding process.

To track quality assurance indicators, ICF generated reports that read the survey data file, generating summary statistics on the following:

- Interviewer efficiencies (completes per hour, on both individual interviewer and project levels);
- All call dispositions; and
- Sample status (number of attempts, percent complete, and refusal rates).

These reports were reviewed by the project manager on a daily basis. This enabled the management team to quickly detect and resolve any problems. Checks were performed on open-ended responses to determine the accuracy of data entry by interviewers.

2. INTERVIEWER MONITORING

Since 2000, each ICF call center has included a dedicated Quality Assurance (QA) department. The QA department consists of highly experienced callers trained to coach others in interviewing technique. The QA department monitors and/or validates at least 10 percent of interviews by unobtrusively tapping into an interviewer's phone line, and using the CATI system's monitoring function to observe the interview in progress. Neither the interviewer nor the respondent is aware that the QA staff is monitoring the call. Interviewers are scored on several measures of interview performance designed to reinforce proper interviewer protocol: introducing the survey, asking questions, repeating questions when necessary, probing, providing feedback, maintaining a proper pace, and the overall clarity of the interviewer's voice and presentation. QA personnel also monitor calls made between completed interviews to verify that interviewers code dispositions properly, leave useful messages for the next interviewer, and make every attempt to complete an interview on every contact.

In Appendix A, there is an example of the Quality Control Form used during QA monitoring sessions. The form is used to specifically rate the interviewer's quality in several different areas when applicable. The QA team will always provide feedback to the interviewer in regards to anything they hear/see during their monitoring time. This form, as well as any other notes made by the QA member, will then be reviewed with the interviewer to assure they are aware of the areas they need to improve as well as the areas they excel.

3. CLIENT REMOTE MONITORING

Boston BPHC staff monitored both cell phone and landline interviews. These monitoring sessions were invaluable in providing suggestions for necessary retraining and identifying problematic situations. The Coordinator and supervisors reviewed performance and instituted procedures to facilitate and clarify how interviewers should react in various situations.

VII. DATA EDITING AND PROCESSING PROCEDURES

Data from the Boston BRFSS is processed by ICF. Data are entered during interviewing using CATI software. ICF cleaned the data of out-of-range codes, recoded open-ended responses, and identified and clarified logically inconsistent responses.

To eliminate human subjectivity in the assignment of CDC dispositions, ICF International has automated data post-processing. This automation uses an algorithm based on CDC rules to reclassify CATI dispositions into BRFSS dispositions. This system also proves useful when tracking a particular respondent, because it provides information on each call attempt made to the selected number.

ICF produced a SAS file of the data structured as per the Boston questionnaire definition. These data were sent to the BPHC. No identifying information was included with these files when distributed but the original IDs for all completed interviews were part of the data set.

VIII. WEIGHTING

1. OVERVIEW OF WEIGHTS

Survey weights were computed to correct for disproportionate sampling probabilities introduced by the sampling design, including unequal probabilities due to the dual-frame sample; and to correct for differences in demographic characteristics of the sample versus the population, reducing the risk of nonresponse and coverage biases in substantive estimates that may be associated with those demographics. The weighted dataset includes a weight value (FINAL_WT) that weights the sample to the total population of Boston adults (18+).

We calculated the weights in three steps: 1) calculating cell and landline design weights, 2) combining the cell phone and landline samples, and 3) population calibration (i.e. poststratification and raking)

1.1 CALCULATING CELL AND LANDLINE DESIGN WEIGHTS:

The first stage in the weighting involved creating sampling weights that correct for disproportionate probabilities of selection, design weights. The design weight for a sampling unit is the inverse of the probability that the particular unit is drawn into the sample.

1.1.1 SELECTION OF THE TELEPHONE NUMBER.

The landline phone sample was selected in two phases (double sampling for stratification). The first phase sample was a selection of n_{LS^*} landline phone numbers from N_L numbers on the frame. The n_{LS^*} numbers were matched to telephone directories to determine whether the number was listed or unlisted. Twenty-six percent of numbers were listed in the high Asian stratum and 23% were listed in the low Asian stratum. In the second phase sample, the listed numbers were oversampled relative to the unlisted numbers. The two phase sample selection probability for density stratum s (1-listed, 2= unlisted) was calculated as $Pr(L) =$

$(n_{L^*}/N_L) \times (n_{LS}/n_{LS^*})$ and the base weight as the inverse of the probability of selection, $W1 = 1/Pr(L)$. The calculations are shown in Figure 3.

FIGURE 3: BASE WEIGHTS FOR THE LANDLINE SAMPLE

	Landline frame N_L	Phase 1 sample	Phase 2 sample n_L	Selection probability $Pr(L)$	Base weight $W1$
Total	688,900	121,011	93,000		
High density Asian exchanges	206,300	105,656			
High density		9,478	9,469	0.5117	1.95
Low density		96,178	64,151	0.3416	2.93
Low density Asian exchanges	467,800	113,456			
High density		19,985	19,941	0.2420	4.13
Low density		93,471	62,199	0.1614	6.20

Similarly, the cell phone sample was also selected in two phases. The first phase sample was a selection of n_{C^*} cell phone numbers from N_C numbers on the frame. The n_{C^*} numbers were matched to a database to obtain the zip code associated with the cell phone number. In the high density stratum 54% matched to a zip code; 48% in the low density. The matching numbers were then classified as in Boston (33% high density; 15% low density) and not in Boston. In the second phase sample, the numbers that matched to a zip code in Boston were oversampled relative to the unmatched numbers and the numbers that match outside of Boston. Numbers that matched to a non-Boston zip in the low density stratum were excluded. The two phase sample selection probability for matching stratum s was calculated as $Pr(C) = (n_{C^*}/N_C) \times (n_{Cs}/n_{Cs^*})$ and the base weight as the inverse of the probability of selection, $W1 = 1/Pr(C)$.

Phone numbers selected for the Asian oversample were also potentially eligible for selection from the RDD cell frame. A composite weight was computed to adjust for this overlap. The composite weight is a ratio of the effective sample sizes, $c = neff1/(neff1 + neff2)$, where $neff = n/deff$ is the effective sample size; is a measure of variability of respondent level weights (w_i) and n is the sample size for the survey.

FIGURE 4: BASE WEIGHTS FOR THE CELL PHONE SAMPLE SELECTED FOR QUARTERS 2-4

Stratum	Frame size N_C	Phase 1 sample n_C^*	Phase 2 sample n_C	Selection probability $Pr(C)$	Base weight $W1$
High density rate centers					
617	1,135,000	131,510			
Matched Boston zip		18,292	18,292	0.1159	8.63
Unmatched		66,597	44,493	0.0774	12.92

Matched to non Boston zip		46,621	18,694	0.0465	21.52
857	582,000	63,591			
Matched Boston zip		9,849	9,849	0.1092	9.15
Unmatched		43,325	34,778	0.0877	11.40
Matched to non Boston zip		10,417	5,241	0.0550	18.19
Low density rate centers					
617	596,000	51,592			
Matched Boston zip		4,272	4,272	0.0866	11.55
Unmatched		29,400	14,797	0.0436	22.95
Matched to non Boston zip		17,920	0		
857	136,000	8,582			
Matched Boston zip		332	332	0.0631	15.85
Unmatched		6,159	3,227	0.0331	30.24
Matched to non Boston zip		2,091	0		
781/339	270,000	19,431			
Matched Boston zip		328	328	0.0720	13.90
Unmatched		11,614	4,807	0.0298	33.57
Matched to non Boston zip		7,489	0		
Out-of-area Boston numbers	99,402	4,325	4,325	0.0435	22.98
Asian Surname	94,054	7,456	7,456	0.0793	12.61

1.1.2 SELECTION OF HOUSEHOLD MEMBER.

For the landline sample, one member (18+ adult) from each household was randomly selected to take the survey. To account for the within household selection probability, we multiplied the weight by the number of eligible adults in the household (A). The number of adults was capped at 3 to reduce weight variability. There is no within household selection for the cell phone.

1.1.3 MULTIPLE TELEPHONE LINES.

Households with more than one telephone line have a higher probability of selection than those with one line. To account for this, we divide by the number of telephone lines in the household. The number of telephone lines was capped at 3 to reduce weight variability. There is no adjustment for the cell phone.

1.2 COMBINING THE CELL PHONE AND LANDLINE SAMPLES:

The sample design was a fully overlapping landline and cell phone dual frame, meaning those who have a landline and cell phone are eligible to be selected via either sample. To account for the overlap of dual-users selected in the cell sample and the dual-users selected in the cell sample, we use a composite weight similar to the composite weight computed to adjust for the overlap of the high density Asian sample with the RDD cell frame.

First, the design weighted landline sample is calibrated to match the design weighted cell phone sample. Then the two samples are averaged based on a composite weight designed to optimize the variances of weighted estimates. The composite weight is a ratio of the effective sample sizes, $c = neff1/(neff1 + neff2)$, where $neff = n/def$ is the effective sample size; is a

measure of variability of respondent level weights (w_i) and n is the sample size for the survey. The landline design weight is multiplied by c , where $0 < c < 1$ and the cell phone design weight by $1-c$. Before averaging the landline and cell samples, we adjust each individually to match the estimated number of cell-only and landline population based on the estimated cell-only percentage (51.7%) from Marketing Systems Group (MSG). The MSG cell-only estimate is calculated by subtracting the estimated landline households from the estimated telephone households. Since the MSG estimates only go down to the county level, the Suffolk County, MA cell-only estimate was used for the weighting.

FIGURE 5: DISTRIBUTION OF LANDLINE AND CELL USERS

	Sample Size		MSG Population Estimate
	Landline	Cell Phone	
Cell-only		1,516	53.5%
Landline	803	682	46.5%

1.3 POPULATION CALIBRATION

As the final weighting step, we post-stratified the combined sample into demographic categories and ratio adjusted the weights so that the final weighted sample matches the population with respect to those demographic characteristics. We used a raking algorithm that iteratively calibrates the weighted sample to the population on these dimensions:

- 1) Age (18-24; 25-34; 35-44; 45-54; 55-64; 65-74; 75+) by gender;
- 2) Race/ethnicity (Hispanic; non-Hisp white; non-Hisp black; non-Hisp other/multi);
- 3) Gender by race/ethnicity;
- 4) Education (Less than high school; HS grad; some college; Bachelor's degree);
- 5) Marital Status (Married; widowed, divorced or separated; never married); and
- 6) Age (18-34; 35-54; 55+) by race/ethnicity (Hispanic; non-Hisp white; non-Hisp black; non-Hisp other/multi)

The population controls are the total adult household population living in Boston based on the 2014-2018 American Community Survey (ACS) Public Use Microdata (PUMs) files. The population totals are presented in Appendix C: SAS Output for Calculating Weights.

1.4 WEIGHT TRIMMING

After each iteration of the raking, the weights were evaluated for trimming. The purpose of trimming is to reduce the total mean square error of weighted survey estimates. One source of error is the variance of estimates associated with the variability of the weight values. Weight trimming was conducted after each iteration of the weighting based on the individual and global cap value (IGCV) algorithm as presented by Izrael. This method decreases high weight values by not allowing an individual's weight value to exceed thresholds based on the individual's weight and the average of the sample weights.

1.5 IMPUTATION

For item nonresponse on weighting variables, we imputed race/ethnicity based on the modal race/ethnicity category for the reported zip code. We imputed missing age based on the average age in a race/ethnicity category. Missing values for educational attainment and marital status were imputed using hot-deck imputation.

IX. DATA QUALITY INDICATORS

Response rates provide a measure of interviewing success, and there are a number of ways to calculate survey response rates. ICF applied the response rate formulas used by the CDC for the 2019 landline BRFSS studies. Response rates are presented in figure 6 below.

FIGURE 6: LANDLINE AND CELL PHONE RESPONSE RATES

1100	Complete	3322	Physical or mental impairment (household level)
1200	Partial Complete	3330	Language barrier (household level)
2111	Household level refusal	3700	On never call list
2112	Known respondent refusal	4100	Out of sample
2120	Break off/termination within questionnaire	4200	Fax/data/modem
2210	Respondent never available	4300	Nonworking number/disconnected
2220	Household answering device	4400	Special technological circumstances
2320	Respondent physically or mentally unable to complete interview	4430	Call forwarding/pager
2330	Language barrier, selected respondent	4450	Cell phone
3100	Unknown if housing unit	4460	Landline
3130	No answer	4470	Cell phone respondent with landline
3140	Answering device, unknown if residence or respondent eligible	4500	Non residence
3150	Telecommunication barrier	4510	Group home
3200	Household, not known if respondent eligible	4700	Household, no eligible respondent
		4900	Miscellaneous, non-eligible

X. RESPONSE RATE FORMULAS

FIGURE 7: BRFSS DISPOSITION CODES

Disposition Code(s)	Symbol for equation	Category of Eligibility	Comment
1100, 1200	COIN	Complete	Completed or partial completed interview
1100, 1200, 2111, 2112, 2120, 2210, 2320, 2330	CONELIG	Contact/eligible	Contact is made with respondent/household with known eligibility
3100, 3200, 3322, 3330	CONUNK	Contact/unknown eligibility	Contact is made with respondent/household with unknown eligibility
1100, 1200, 2111, 2112, 2120, 2220, 2210, 2320, 2330	ELIG	Eligible	Contact is made and enough information obtained to ascertain eligibility of household and/or respondent
1100, 1200, 2111, 2112, 2120, 2220, 2210, 2320, 2330, 3200, 3322, 3330, 3700, 4100, 4450, 4460, 4470, 4700	HH	Households	Household or personal cell phone
2111, 2112, 2120, 2220, 2210, 2320, 2330	ELIGHH	Known household/personal cell phone, not interviewed	Contact is made and enough information is obtained to ascertain eligibility of household and/or respondent but interview is not completed.
3100, 3130, 3140, 3150, 3200, 3322, 3330, 3700	UNKELIG	Unknown eligibility	No contact is made or contact is made but not enough information is obtained to determine household and/or respondent eligibility
2111, 2112, 2120	TERE	Break offs, terminations and refusals	Contact is made and eligibility established, but the interview breaks off prior to completing half of the demographic section
4100, 4450, 4460, 4470, 4700	CONINELIG	Contact with ineligible household/respondents	Contact is made with a household and information obtained that determines ineligibility
4000-4999	INELIG	Ineligible	Information from individuals or from technological devices is available to ascertain that the phone number, household and/or respondent is not eligible
ELIG/ (ELIG+INELIG)	e	Eligibility factor	Estimated proportion of cases of unknown eligibility that are likely eligible

Response Rate Calculations. This section of the report provides monthly data on response rates and frequency dispositions. The formulas used in the report follow the CASRO rates and are presented below.

- 1) Resolution rate: the proportion of all telephone numbers in the sample for which the status of the numbers as households with working numbers has been resolved.
= $(ELIG + INELIG) / (ELIG + INELIG + (UNKELIG))$
- 2) Cooperation rate (AAPOR Cooperation rate #2): the proportion of all cases interviewed of all eligible units contacted.
= $COIN / (ELIG)$
- 3) Screening completion rate: the proportion of all known households in which the screening questions are completed to determine the presence or absence of an eligible respondent/household.
= $(CONELIG + CONINELIG) / (HH)$
- 4) CASRO rate: CASRO response rate
= $COIN / (ELIG + e*(UNKELIG))$
- 5) Interview completion rate: the proportion of selected respondents who successfully complete an interview.
= $COIN / (COIN + TERE)$
- 6) Refusal rate (AAPOR Refusal rate #2): the proportion of all eligible respondents who refused to complete an interview or terminated an interview prior to the threshold required to be considered a partial interview.
= $TERE / (ELIG + e*(UNKELIG))$

FIGURE 8: CATEGORIES OF ELIGIBILITY AND STATUS BY FINAL DISPOSITION CODES

Disposition Code(s)	Symbol for equation	Category of Eligibility	Comment
1100, 1200	COIN	Complete	Completed or partial completed interview
1100, 1200, 2111, 2112, 2120, 2210, 2320, 2330	CONELIG	Contact/eligible	Contact is made with respondent/household with known eligibility
3100, 3200, 3322, 3330	CONUNK	Contact /unknown eligibility	Contact is made with respondent/household with unknown eligibility
1100, 1200, 2111, 2112, 2120, 2220, 2210, 2320, 2330	ELIG	Eligible	Contact is made and enough information obtained to ascertain eligibility of household and/or respondent


1100,1200, 2111, 2112, 2120, 2220, 2210, 2320, 2330, 3200, 3322, 3330, 3700, 4100, 4450, 4460, 4470, 4700	HH	Households	Household or personal cell phone
2111, 2112, 2120, 2220, 2210, 2320, 2330	ELIGHH	Known household/ personal cell phone, not interviewed	Contact is made and enough information is obtained to ascertain eligibility of household and/or respondent but interview is not completed.
3100, 3130, 3140, 3150, 3200, 3322, 3330, 3700	UNKELIG	Unknown eligibility	No contact is made or contact is made but not enough information is obtained to determine household and/or respondent eligibility
2111, 2112, 2120	TERE	Break offs, terminations and refusals	Contact is made and eligibility established, but the interview breaks off prior to completing half of the demographic section
4100, 4450, 4460, 4470, 4700	CONINELIG	Contact with ineligible household/ respondents	Contact is made with a household and information obtained that determines ineligibility
4000-4999	INELIG	Ineligible	Information from individuals or from technological devices is available to ascertain that the phone number, household and/or respondent is not eligible
ELIG/ (ELIG+INELIG)	e	Eligibility factor	Estimated proportion of cases of unknown eligibility that are likely eligible

FIGURE 9: FREQUENCIES OF DISPOSITIONS AND RESPONSE RATES

1100	679	2121
1200	56	145
2111	382	.
2112	43	177
2120	334	1059
2210	13	90
2220	1373	.
2320	1	5
2330	6	23
3100	7212	42113
3130	8641	1573
3140	9106	34826
3150	112	147
3200	156	203
3322	70	58
3330	861	4696
3700	34	11
4100	536	11069
4200	3173	88
4300	111421	55680
4400	2157	14364
4430	8	2
4460	.	105
4500	8192	3282
4510	63	34
4700	7	367
Total	154,636	172,238
Screening	44.9%	74.9%
Cooperation	25.5%	62.6%
Resolution	83.1%	51.4%
CASRO	44.9%	31.0%
Refusal	21.8%	10.6%

XI. APPENDIX A: SURVEY RESEARCH QUALITY CONTROL FORM

Survey Research Quality Control Form



Recording Live

Date of Call 2016-06-24

Agent

Home Agent Seattle Agent

Martinsville Agent Other

QA

Master ID

Project

BOSTON BRFS LL- 2016

Score

100

Call Outcome

Complete

Date Coached

6/7/2016

Perfect (Follows All Established Guidelines)

Category	Description
Verbatim	
Introduction	Every word read as it appears on the screen
Scales/Lists	Every scale / list option read in full
Script	Every question read in full
Refusal Conversion	
Attempted	Attempted every refusal by the respondent
Appropriate	Every refusal addressed with the appropriate rebuttal
Follow-Up	After rebuttal, move into the questionnaire without delay
Other	
Pace - Throughout	Reading each question in line with respondent needs
Data Mechanics - Throughout	Moving from question to question swiftly and accurately coding each answer
Accurate Disposition - Throughout	Correctly assign the disposition best suited for each call
Tone / Professionalism - Throughout	Clear, not monotone / Engaging and sounds interested / Respectful

Acceptable (3 Point Deduction Per Offense)

Category	Description	Deduction
Verbatim		
Introduction	Minimal and not survey affecting / Synonyms	<input type="checkbox"/>
Script	Minimal and not survey affecting / Synonyms	<input type="checkbox"/>
Other		
Pace - Throughout	Had to speed up or slow down based on respondent feedback	<input type="checkbox"/>
Data Mechanics - Throughout	Moving from question to question slowly / corrected mistakes	<input type="checkbox"/>

Unacceptable (11 Point Deduction Per Offense)

Category	Description	Deduction
Verbatim		
Introduction	Didn't read the entire introduction verbatim, skipped words, sections	<input type="checkbox"/>
Scales/Lists	Didn't read the scale or list in full, regardless if they were cut off by respondent	<input type="checkbox"/>
Script	Didn't read every question in full as it appears on the screen	<input type="checkbox"/>
Refusal Conversion		
Attempted	Failed to attempt every refusal by the respondent	<input type="checkbox"/>
Appropriate	Failed to appropriately address the respondents concerns in the rebuttal	<input type="checkbox"/>
Follow-Up	After rebuttal, delay in moving into the questionnaire, asked if respondent can continue, etc.	<input type="checkbox"/>
Other		
Tone / Professionalism - Throughout	Unprofessional or rude to respondent	<input type="checkbox"/>
Pace - Throughout	Should have sped up or slowed down based on respondent feedback	<input type="checkbox"/>
Data Mechanics - Throughout	Moved from q to q too slowly or quickly which lead to inaccurately coding answers	<input type="checkbox"/>
Accurate Disposition - Throughout	Incorrectly assigned the call a disposition that was not survey affecting	<input type="checkbox"/>
Probing / Neutrality - Throughout	Probes were not neutral / personal opinions or statements given	<input type="checkbox"/>
Appointment Setting	Didn't properly probe for the best time and date and set the appointment accordingly	<input type="checkbox"/>
Falsification	Flagrant mis-coding of answers / dispositions - survey affecting / etc.	<input type="checkbox"/>

XII. APPENDIX B: QUESTIONNAIRE



2019

Boston Behavioral Risk Factor Surveillance System Questionnaire

*Boston Public Health Commission
Research & Evaluation Office
1010 Massachusetts Avenue
Boston, MA 02118*

Behavioral Risk Factor Surveillance System 2019 Questionnaire – Boston

Table of Contents

- Section 1: Health Status**
- Section 2: Sleep**
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- Section 19: Food Security**
- Section 20: Discrimination**
- Section 21: Social Determinants**
- Section 21A: Disability**
- Section 22: Adverse Childhood Experiences**
- Section 23: Physical and Sexual Violence**
- Section 24: Follow-up**

SAMPLE READ-IN: FRAME SAMPTYPE

1. Landline
2. Cell Phone

Interviewer's Script

Answering Machine message text [TO BE LEFT ON 1ST, 4TH, AND 9TH ATTEMPT RESULTING IN AN ANSWERING MACHINE]:

Hello, my name is _____. I am calling on behalf of the Boston Public Health Commission to conduct an important study on the health of Boston residents. We will call again in the next few days to conduct the interview. If you have any questions, please call us at 844-604-4394 at your convenience. Thanks."

Privacy Manager Message [TO BE LEFT ON 1ST, 4TH, AND 9TH ATTEMPT RESULTING IN A PRIVACY MANAGER]: "(NAME) Calling on behalf of the Boston Public Health Commission"

Interviewer's Script from Field Test

//ASK IF SELFLAG=WR OR CELLPH=1

INT01

HELLO, I'm calling for the Boston Public Health Commission. My name is _____ **(name)** _____. We're gathering information on the health of Boston residents. Your phone number has been chosen randomly, and I'd like to ask some questions about health and health practices. This call may be monitored and recorded for quality control.

- 01 Continue
- 02 Terminate Screen

//IF FRAME=2 (CELL PHONE)//

SAFE Is this a safe time to talk with you?

- 01 Yes **[Go to TOWN]**
- 02 No **TERMINATE**

- 03 Respondent Says – They Do Not Live in Boston
- 04 Termination Screen

//IF SAFE=03//

INTRO2 You may still be eligible to participate.

- 01 Continue to next question
- 07 Termination screen
- 09 Not a safe time/driving

For Resumed Interviews and CELLPH=2 (LANDLINE):

//ASK IF SELFLAG=1 AND CELLPH=2//

INT02

HELLO, I'm calling for the Boston Public Health Commission. My name is _____ (name) _____. We're gathering information on the health of Boston residents. Your phone number has been chosen randomly, and I'd like to ask some questions about health and health practices. This call may be monitored and recorded for quality control. When we called previously [IF ADULTS=1 INSERT: ", we spoke to the adult in this household"] [IF ADULTS>1 INSERT: "the computer randomly selected the [insert RSA]]" to be interviewed. May I please speak to him/her?

- 01 Transfer to respondent [go to newadult]**

05 Selected on the line
02 Termination screen

//ASK ALL//

TOWN I have just a few questions to find out if you are eligible for the study and any information you give me will be confidential.

What city or town do you live in?

- 01 Boston
- 02 Allston
- 03 Brighton
- 04 Back Bay
- 05 Beacon Hill
- 06 Charlestown
- 07 Chinatown
- 08 Dorchester
- 09 Downtown
- 10 East Boston
- 11 Egleston Square
- 12 Fenway
- 13 Fields Corner
- 14 Hyde Park
- 15 Jamaica Plain
- 16 Mattapan
- 17 Mission Hill
- 18 North End
- 19 Readville
- 20 Roslindale
- 21 Roxbury
- 22 South Boston
- 23 South End
- 24 West End
- 25 West Roxbury
- 88 OTHER CITY/ TOWN/STATE
- 77 DON'T KNOW
- 99 REFUSED//ASK IF TOWN=88, 77, 99 (NON-BOSTON RESIDENT)//

//ASK IF TOWN=88, 77, 99 (NON-BOSTON RESIDENT)//

TERM2 "Thank you very much, but we are only interviewing Boston residents." 1 Continue **//ASSIGN DISPO=S2//**

Qualified Level 1

//ASK if TOWN=01-25 ZIPCODE What is your zip code where you live? [If needed, say: I mean the zip code of your residence, that is, where you live?]

02 _ _ _	Zip code
77777	Don't know/not sure S/O NON-BOSTON RESIDENT
99999	Refused S/O NON-BOSTON RESIDENT

[PLEASE NOTE: Boston zip codes are the following: 02108, 02109, 02110, 02111, 02113, 02114, 02115, 02116, 02118, 02119, 02120, 02121, 02122, 02124, 02125, 02126, 02127, 02128, 02129, 02130, 02131, 02132, 02134, 02135, 02136, 02163, 02199, 02210, 02215, 02467, 02101, 02112, 02117, 02123, 02133, 02137, 02196, 02201, 02205, 02211, 02212, 02222 and 02241

//ASK IF ZIPCODE ≠ 02108, 02109, 02110, 02111, 02113, 02114, 02115, 02116, 02118, 02119, 02120, 02121, 02122, 02124, 02125, 02126, 02127, 02128, 02129, 02130, 02131, 02132, 02134, 02135, 02136, 02163, 02199, 02210, 02215, 02467, 02101, 02112, 02117, 02123, 02133, 02137, 02196, 02201, 02205, 02211, 02212, 02222, 02241, 77777, 99999//

ZIPCK I just want to confirm, you said your zip code is [ZIPCODE]. Is that correct?

- 01 Yes, correct zip code //TERM3//
- 02 No, incorrect zip code //REASK//

//ASK IF ZIPCK=01 OR ZIPCODE=77777,99999//

TERM3 "Thank you very much, but we are not interviewing in your zip code today. You may receive a call again at some point in the future." 1 Continue //ASSIGN DISPO=S3//

Qualified Level 2

//ASK IF ZIPCODE=02108, 02109, 02110, 02111, 02113, 02114, 02115, 02116, 02118, 02119, 02120, 02121, 02122, 02124, 02125, 02126, 02127, 02128, 02129, 02130, 02131, 02132, 02134, 02135, 02136, 02163, 02199, 02210, 02215, 02467, 02101, 02112, 02117, 02123, 02133, 02137, 02196, 02201, 02205, 02211, 02212, 02222 OR 02241 //

PVTRESID

IF FRAME=1, ASK: Is this a private residence?

IF FRAME=2, ASK: Do you live in a private residence?

[Read only if necessary: By private residence, we mean some place like a like a house or apartment.]

- 01. Yes **GO TO CELLPH**
- 02. No

//ASK IF PVTRESID=2//

SOPVTRES Thank you very much, but we are only interviewing private residences in Boston. 1 Continue //ASSIGN DISP=S4//

Qualified Level 3

//ASK IF PVTRESID=1//

CELLPH Is this a cell phone?

[Read only if necessary: By cell phone we mean a telephone that is mobile and usable outside of your neighborhood.]

- 1. Yes
- 2. No

CATI DUMMY QUESTION: AUTOPUNCH RESPONSE TO 'CELLFON'. IF CELLPH=1 (YES), CELLFON=2 (YES). IF CELLPH=2 (NO), CELLFON=1 (NO).

CELLFON

- 1 No, not a cellular telephone.
- 2 Yes

RESPONDENT SELECTION

CATI NOTE:

- **IF CELLPH=1 (is a cell phone) continue;**
- **Otherwise go to Adult Random Selection**

//ASK IF CELLPH=1 (CELL PHONE)//

CADULT Are you 18 years of age or older?

INTERVIEWER: PLEASE CONFIRM NEGATIVE RESPONSES TO ENSURE THAT RESPONDENT HAS HEARD AND UNDERSTOOD CORRECTLY.

- 1 YES
- 2 NO
- 7 DON'T KNOW / NOT SURE
- 9 REFUSED

//ASK IF CADULT=1//

ASKGNDR2 Are you male or female?

- 21 Male //GO TO YOURTHE1//
- 22 Female //GO TO YOURTHE1//
- 23 Other //GO TO YOURTHE1//

//ASK IF CADULT=7,9//

TERM5 Thank you very much for your time. 01 CONTINUE, **//TERM DISP = S5//**

//ASK IF CADULT=2//

CADULT2

Is there an adult that also uses this cell phone?

- 1 YES **[GO TO CADULT3]**
- 2 NO

//ASK IF CADULT2=2// (no adult uses cell phone)

TERM6 Thank you very much, but we are only interviewing persons aged 18 or older at this time. 01 CONTINUE **// TERM DISP = S6//**

//ASK IF CADULT2=1//

CADULT3

May I speak with him or her?

- 1 SWITCHING TO RESPONDENT
- 2 RESPONDENT NOT AVAILABLE/CALLBACK

/if CADULT3=1 GO TO INTRO1/

/if CADULT3=2 autocode 105, callback/

//ASK IF CELLFON=1// (landline)

Adult Random Selection

I need to randomly select one adult who lives in your household to be interviewed.

How many members of your household, including yourself, are 18 years of age or older?

[If needed say: For this study, households are first randomly selected in the area, and then one adult is selected in each household to be interviewed. It is important to the accuracy of the study that those selected for the study participate, because this is what ensures that the results will represent all Boston residents.]

ADULTS ___ Number of adults [RANGE 0-18]

//if CELLFON=1 AND ADULTS = 0 //

XX3 I'm sorry we are only interviewing adult residents who are 18 years of age or older.

Thank you." **//IF ADULTS=0 ASSIGN DISPO S7//**

1. continue

//ask if CELLFON=1 AND ADULTS = 1//

ONEADULT Are you the adult?

01 YES

02 NO

If "yes,"

Then you are the person I need to speak with.

//ASK IF ONEADULT=1//

ASKGNDR3 Are you male or female?

21 Male

22 Female

23 Other

//if CELLFON=1 AND ONEADULT=02//

GETADULT May I speak with him or her?

1 Yes, Adult coming to the phone.**[GO TO NEWADULT]**

2 No, not here (interview will terminate) **[INTERVIEWER SET APPOINTMENT FOR BEST TIME TO REACH ADULT]**

//if CELLFON=1 AND ADULTS>1//

RSA. System Generated Variable: Randomly Selected Adult

01 Oldest Adult

02 2nd Oldest Adult

03 3rd Oldest Adult

04 4th Oldest Adult

05 5th Oldest Adult

06 6th Oldest Adult

- 07 7th Oldest Adult
- 08 8th Oldest Adult
- 09 9th Oldest Adult
- 10 10th Oldest Adult
- 11 11th Oldest Adult
- 12 12th Oldest Adult
- 13 13th Oldest Adult
- 14 14th Oldest Adult
- 15 15th Oldest Adult
- 16 16th Oldest Adult
- 17 17th Oldest Adult
- 18 18th Oldest Adult
- 19 19th Oldest Adult
- 20 No respondent selected

//if CELLFON=1 AND ADULTS>1//

NBIRTH. The person in your household that I need to speak with is [RSA]. Are you the [RSA] in this household?

- 01 Yes,
- 02 No, adult coming to the phone
- 03 No, adult not available at this time. [SUSPEND AND SCHEDULE A CALL BACK]

//ask if nbirth = 01//

GENDER:

Are you male or female?

- 21 Male
- 22 Female
- 23 Other

(If nbirth=3, Interview will terminate) **[INTERVIEWER SET APPOINTMENT FOR BEST TIME TO REACH ADULT]**

To the correct respondent:

//IF NBIRTH=02 OR GETADULT = 1//

NEWADULT

HELLO, I'm calling for the Boston Public Health Commission. My name is _____. We're gathering information on the health of Boston residents. Your phone number has been chosen randomly, and I'd like to ask some questions about health and health practices.

1. Continue

//ASK ALL//

YOURTHE1

[Please read:] I will not ask for your last name, address, or other personal information that can identify you. You do not have to answer any question you don't want to, and you can end the interview at any time. Any information you give me will be confidential. This call may be monitored and recorded for quality control. If you have any questions about the survey, I will provide a telephone number for you to call to get more information.

[If needed: If you have any questions about this study, you can call the study director, Johnna Murphy, at the Boston Public Health Commission. Her number is 617-534-2369. Your phone number will be erased from the data within two years from today.

[IF NEEDED: The interview takes on average 27 minutes depending on your answers.]

001 Person Interested, continue.

002 Go back to Adults question. WARNING: A NEW RESPONDENT WILL BE SELECTED
AND YOU NEED A SUPERVISOR'S PASSWORD TO CONTINUE

Section 1: Health Status

//ASK ALL//

1.1 (GENHLTH)

Would you say that in general your health is—

Please read:

- 1 Excellent
- 2 Very good
- 3 Good
- 4 Fair

Or

- 5 Poor

Do not read:

- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

1.2 (PHYSHLTH)

Now 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 [RANGE 1-30]

- 8 8 None
- 7 7 Don't know / Not sure
- 9 9 Refused

//ASK ALL//

1.3 (MENTHLTH)

Now 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 [RANGE 1-30]

- 8 8 None **[If PHYSHLTH and MENTHLTH = 88 (None), go to next section]**
- 7 7 Don't know / Not sure
- 9 9 Refused

//ASK IF NOT (1.2 AND 1.3 = 88)//

1.4 (POORHLTH)

During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

___ ___ Number of days

- 8 8 None
- 7 7 Don't know / Not sure
- 9 9 Refused

Section 2: Sleep

//ASK ALL//

2.1

On average, how many hours of sleep do you get in a 24-hour period?

- | | |
|-------|------------------------------|
| _____ | Number of hours [RANGE 1-24] |
| 8 8 | None |
| 7 7 | Don't know / Not sure01 |
| 9 9 | Refused |

Section 3: Health Care Access

//ASK ALL//

3.1 (HLTHPLAN)

Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

- | | | |
|---|-----------------------|--------------------|
| 1 | Yes | |
| 2 | No | [Go to 3.3] |
| 7 | Don't know / Not sure | [Go to 3.3] |
| 9 | Refused | [Go to 3.3] |

//ASK IF 3.1 (HLTHPLAN)=1//

3.2

What type of health care coverage do you use to pay for most of your medical care? Is it coverage through:

Please read:

- | | |
|----|---|
| 01 | Your employer |
| 02 | Someone else's employer |
| 03 | A plan that you or someone else buys on your own |
| 04 | Medicare |
| 05 | Medicaid, Masshealth, CommonHealth or Mass Health HMOs offered through
Neighborhood Health Plan, Fallon Community Health Plan, BMC
HealthNet, or Network Health |
| 09 | Commonwealth Care |
| 06 | The military, CHAMPUS, TriCare or the VA [or CHAMP-VA] |
| 07 | The Indian Health Service [or the Alaska Native Health Service] |

or

- | | |
|----|-------------------|
| 08 | Some other source |
|----|-------------------|

Do not read:

- | | |
|----|---------------------|
| 88 | None |
| 77 | Don't know/Not Sure |
| 99 | Refused |

PRE-3.3: ALL IN 3.2 SKIP to MEDCOST

//ASK IF 3.1 (HLTHPLAN) = 2,7,9//

3.3

There are some types of coverage that you may not have considered. Please tell me if you have any of the following:

Coverage through: Coverage Code — —

Please read:

- 01 Your employer
- 02 Someone else's employer
- 03 A plan that you or someone else buys on your own
- 04 Medicare
- 05 Medicaid, Masshealth, CommonHealth or Mass Health HMOs offered through
 Neighborhood Health Plan, Fallon Community Health Plan, BMC
 HealthNet, or Network Health
- 09 Commonwealth Care
- 06 The military, CHAMPUS, TriCare or the VA [or CHAMP-VA]
- 07 The Indian Health Service [or the Alaska Native Health Service]

or

- 08 Some other source

Do not read:

- 88 None
- 77 Don't know/Not Sure
- 99 Refused

//ASK ALL//

3.4 (MEDCOST)

Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

3.5 (DRGCOST)

Was there a time in the past 12 months when you did not take your medication as prescribed because of cost? Do not include over-the-counter (OTC) medication.

- 1 Yes
- 2 No

Do not read:

- 3 No medication was prescribed.
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

3.6 (PERSDOC2)

Do you have one person you think of as your personal doctor or health care provider?

[If NO, ask: Is there MORE THAN ONE or is there NO person who you think of as your personal doctor or health care provider?]

- 1 Yes, only one
- 2 More than one
- 3 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

3.7 (MEDHOME)

When you are sick or need advice about your health, to which one of the following places do you usually go? Would you say: **[Please read]**

- 1 A public health clinic or community health center
- 2 A doctor's office
- 3 A hospital outpatient department
- 4 A hospital emergency room
- 5 Urgent care center
- 6 Some other kind of place **[PLEASE SPECIFY _____]**, OR
- 8 No usual place

[Do not read]

- 7 Don't know/Not sure
- 9 Refused

//ASK IF 3.7 (MEDHOME) = 6//

3.7_oth ENTER OTHER SPECIFY

Section 4: Oral Health

//ASK ALL//

4.1

Do you have any kind of insurance coverage that pays for some or all of your routine dental care, including dental insurance, prepaid plans such as HMO's, or government plans such as Medicaid?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

4.1a

Was there a time in the past 12 months when you needed to see a dentist but could not because of the cost?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

4.2 (RMVTETH4)

How many of your permanent teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics.

NOTE: If wisdom teeth are removed because of tooth decay or gum disease, they should be included in the count for lost teeth.

_____ Record Number of Teeth Lost (RANGE 1 TO 36)

- 66 All
- 88 None
- 77 Don't know / Not sure
- 99 Refused

Section 5: Hypertension & Heart Health

//ASK ALL//

5.1 (BPHIGH3)

Have you EVER been told by a doctor, nurse, or other health professional that you have high blood pressure?

Read only if necessary: By "other health professional" we mean a nurse practitioner, a physician's assistant, or some other licensed health professional.

(If "Yes" and respondent is female, ask: "Was this only when you were pregnant?")

- 1 Yes
- 2 Yes, but female told only during pregnancy
- 3 No
- 4 Told borderline high or pre-hypertensive
- 7 Don't know / Not sure
- 9 Refused

Section 6: Diabetes

//ASK ALL//

6.1 (DIABETE2)

Have you ever been told by a doctor that you have diabetes?

If "Yes" and respondent is female, ask: "Was this only when you were pregnant?"

If respondent says pre-diabetes or borderline diabetes, use response code 4.

- 1 Yes
- 2 Yes, but female told only during pregnancy
- 3 No
- 4 No, pre-diabetes, or borderline diabetes
- 7 Don't know / Not sure
- 9 Refused

Section 7: Sugar Sweetened Beverages

//ASK ALL//

7.1T Now I would like to ask you some questions about sugary beverages.

01 CONTINUE

//ASK ALL//

7.1 During the past 30 days, how often did you drink regular soda or pop that contains sugar? Do not include diet soda or diet pop. You can answer times per day, week or month; for example, twice a day, once a week and so forth.

[Interviewer note: Please remind respondents to include regular soda that they mixed with alcohol.]

- 1__ __ Times per day [RANGE = 101-199]
- 2__ __ Times per week [RANGE = 201-299]
- 3__ __ Times per month [RANGE = 301-399]
- 5 5 5 Never
- 7 7 7 Don't know / Not sure
- 9 9 9 Refused

7.1A //ASK if [7.1#106-199,226-299,388-399]//

**INTERVIEWER: YOU RECORDED //insert response from 7.1//
IS THAT CORRECT?**

- 1 Yes, Correct as is
- 2 No, Re-ask question

//ASK ALL//

7.2 During the past 30 days, how often did you drink sugar-sweetened fruit drinks (such as Kool-aid and lemonade), sweet tea, and sports or energy drinks (such as Gatorade and Red Bull)? Do not include 100% fruit juice, diet drinks, or artificially sweetened drinks. You can answer times per day, week, or month: for example, twice a day, once a week, and so forth.

- 1__ __ Times per day [RANGE = 101-199]
- 2__ __ Times per week [RANGE = 201-299]
- 3__ __ Times per month [RANGE = 301-399]

Do Not Read
5 5 5 Never
7 7 7 Don't know / Not sure
9 9 9 Refused

7.2A //ASK if [7.2#106-199,226-299,388-399]//

**INTERVIEWER: YOU RECORDED //insert response from 7.2//
IS THAT CORRECT?**

- 1 Yes, Correct as is

2 No, Re-ask question

Section 9: Caregiver

//ASK ALL//

9.1cT

PLEASE READ: Now I'd like to ask you about providing care to others.

//ASK ALL//

9.1c (9.1c) People may provide regular care or assistance to a friend or family member who has a health problem or disability. In an average week, how many hours do you provide care or assistance to others? Would you say...

PLEASE READ

- 1 No hours
- 2 Up to 8 hours per week
- 3 9 – 19 hours per week
- 4 20 – 39 hours per week
- 5 40 or more hours per week

DO NOT READ

- 7 Don't know/not sure
- 9 Refused

Section 10: Tobacco Use

Please read: Now I would like to ask you some questions about smoking.

//ASK ALL//

10.1 (SMOKE100) Have you smoked at least 100 cigarettes in your entire life?

NOTE: 5 packs = 100 cigarettes

- 1 Yes
- 2 No [Go to Q10.3]
- 7 Don't know / Not sure [Go to Q10.3]
- 9 Refused [Go to Q10.3]

INTERVIEWER NOTE: "FOR CIGARETTES, DO NOT INCLUDE: ELECTRONIC CIGARETTES (E-CIGARETTES, NJOY, BLUETIP), HERBAL CIGARETTES, CIGARS, CIGARILLOS, LITTLE CIGARS, PIPES, BIDIS, KRETEKS, WATER PIPES (HOOKAHS), OR MARIJUANA."

//ASK IF 10.1 = 1//

10.2 (SMOKDAY2) Do you now smoke cigarettes every day, some days, or not at all?

- 1 Everyday
- 2 Some days
- 3 Not at all

- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

10.3 Do you currently use cigars, cigarillos or little cigars, for example, Black and Milds, Game, Dutchmaster, every day, some days, or not at all?

- 1 Everyday
- 2 Some days
- 3 Not at all
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

10.4 Thinking about the past 7 days, about how many hours a week were you exposed to other people's tobacco smoke when you were at home?

- ___ Number of hours per week [76 = 76 or more]
- 01 An hour or less per week, but more than none
- 88 None
- 77 Don't know
- 99 Refused

Section 11: Demographics

//ASK ALL//

11.1 (AGE) What is your age?

___ Code age in years [RANGE 18-99] **GO TO Q11.2**

- 0 7 Don't know / Not sure **GO TO Q11.2**
- 0 9 Refused

//ASK IF 11.1=9//

11.1a In which of these age categories do you belong? **[READ LIST]**

- 01 18-24
- 02 25-29
- 03 30-39
- 04 40-44
- 09 45-49
- 05 50-59
- 06 60-69
- 07 70-79
- 08 80 or older
- Do not read:**
- 77 Don't Know / Not Sure
- 99 Refused

//ASK ALL//

11.2

[IF S11Q19=1 OR ASKGNDR2=21 OR ASKGNDR3=21 OR GENDER=21 INSERT "Are you Hispanic or Latino?"]

[IF S11Q19=2 OR ASKGNDR2=22 OR ASKGNDR3=22 OR GENDER=22 INSERT "Are you Hispanic or Latina?"]

[OTHERWISE INSERT "Are you Hispanic, Latina or Latino?"]

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

//MUL=6//

11.3 (MRACE)

Which one or more of the following would you say is your race?
(Check all that apply)

Please read:

- 1 White
- 2 Black or African American
- 3 Asian
- 4 Native Hawaiian or Other Pacific Islander
- 5 American Indian or Alaska Native

Or

- 6 Other [specify]_____

Do not read:

- 7 Don't know / Not sure
- 9 Refused

//ASK IF 11.3 = 6//

11.3oth ENTER OTHER SPECIFY

//ASK IF (11.2=2 AND 11.3=6 ONLY) OR (11.2=2 AND 11.3=7-9)

11.3pa How do you identify your ethnicity, ancestry or heritage?

- 1 Gave response
- 7 Don't know / Not sure
- 9 Refused

//ASK IF (11.2=2 AND 11.3=6 ONLY AND 11.3preanc=1) OR (11.2=2 AND 11.3=7-9 AND 11.3preanc=1)//

11.3anc How do you identify your ethnicity, ancestry or heritage?

11.3a_1 **//REQUIRED** [SPECIFY] _____

11.3a_2 **//NOT REQUIRED** [SPECIFY] _____

11.3a_3 **//NOT REQUIRED** [SPECIFY] _____

CATI Note: If more than one response to 11.3 (MRACE), continue. Otherwise, go to pre-Q11.5

//ASK IF 11.3 = MUL//

11.4 (ORACE2)

Which one of these groups would you say best represents your race?

//PROGRAMMER: ONLY DISPLAY RESPONSES SELECTED IN 11.3//

- 1 White
- 2 Black or African American
- 3 Asian
- 4 Native Hawaiian or Other Pacific Islander
- 5 American Indian or Alaska Native
- 6 Other [specify]_____

Do not read:

- 7 Don't know / Not sure
- 9 Refused

//ASK IF 11.2=1 OR 11.3=1-3//

11.5 Now I will ask how you identify your ethnicity, ancestry or heritage. Are you... ?

[CHECK ALL THAT APPLY]

//f 11.2=1 display 1-7 and 33

//f 11.3=1 display 26-32 and 33

//f 11.3=2 display 18-23 and 33

//f 11.3=3 display 10-16 and 33

(Hispanic/Latino ethnicity/heritage) //mul=7//

- 1 Columbian
- 2 Dominican
- 3 Guatemalan
- 4 Honduran
- 5 Mexican
- 6 Puerto Rican
- 7 Salvadorian

(Asian ethnicity/heritage) //mul=7//

- 10 Asian Indian
- 11 Cambodian
- 12 Chinese
- 13 Filipino
- 14 Japanese
- 15 Korean
- 16 Vietnamese

(Black ethnicity/heritage) //mul=6//

- 18 African American
- 19 Barbadian
- 20 Cape Verdean
- 21 Haitian
- 22 Jamaican
- 23 Nigerian

(White ethnicity/heritage) //mul=7//

- 26 Irish
- 27 Italian
- 28 English
- 29 German
- 30 Polish
- 31 Russian
- 32 French

(ASKED of all ancestry respondents)

- 33 Other [PLEASE SPECIFY]

[DO NOT READ]

- 77 Don't Know/Not Sure
- 99 Refused

//ASK IF 11.5=33//

11.5po INTERVIEWER NOTE: [DO NOT READ] Did respondent give a response for 33- Other ethnicity, ancestry or heritage?

- 1 Gave response
- 7 Don't know / Not sure
- 9 Refused

//ASK IF 11.5po=1//

11.5o_1 ENTER OTHER SPECIFY //REQUIRED [SPECIFY] _____

11.5o_2 //NOT REQUIRED [SPECIFY] _____

11.5o_3 //NOT REQUIRED [SPECIFY] _____

//ASK ALL//

11.6 Were you born in the mainland United States or somewhere else? (If somewhere else, probe for place of birth.)

Mainland US [Go to 11.7]	01	Japan	40
Puerto Rico	02	Kenya	41
Algeria	03	Liechtenstein	42
Argentina	04	Malaysia	43
Australia	05	Mexico	44
Austria	06	Morocco	45
Belgium	07	Netherlands	46
Belize	08	New Zealand	47
Bolivia	09	Nicaragua	48
Brazil	10	Nigeria	49
Cameroon	11	Norway	50
Cape Verde	79		
Chile	12	Panama	51
China	13	Paraguay	52
Colombia	14	Peru	53
Costa Rica	15	Philippines	54
Czechoslovakia	16	Poland	55
Denmark	17	Portugal	56
Dominican Republic	18	Romania	57
Ecuador	19	Russia	58
Egypt	20	Saudi Arabia	59
El Salvador	21	Singapore	60
Ethiopia	22	South Africa	61
Finland	23	South Korea	62
France	24	Spain	63
Germany	25	Sweden	64
Greece	26	Switzerland	65
Guam	27	Taiwan	66
Guatemala	28	Tanzania	67
Haiti	29	Thailand	68
Honduras	30	Tunisia	69
Hong Kong	31	Turkey	70
Hungary	32	United Kingdom	71
India	33	Uruguay	72
Indonesia	34	Venezuela	73
Iran	35	Vietnam	74
Iraq	36	US: Alaska	75 [Go to 11.7]
Ireland	37	US: Hawaii	76 [Go to 11.7]
Israel	38		

Italy	39	DK/not sure	77
Jamaica	78	Other(specify)	88
		Refused	99

//ASK IF 11.6 = 88//

11.6_oth ENTER OTHER SPECIFY

//ASK IF 11.6 = 02-74 or 11.6= 78, 79, 88//

11.6a How many years have you lived in this country?

- ___ Years (round fractions up) [RANGE 0-76] [76 = 76 or more]
- 7 7 Don't know/not sure
- 9 9 Refused

//ASK IF (11.6a = 01-76 and 11.1 AGE = 18-99) AND (11.6a > 11.1 AGE)//

11.6_ck (UPDTAG)

I'm sorry, you indicated you were {CATI: fill-in response from 11.1 AGE} years old, and you stated you have lived in this country for {CATI: fill-in response from 11.6a} years which is greater than your age. Which is correct?

- 01** Years in country is correct (Update age) **GO TO 11.1 AGE**
- 02** Age is correct (Update years in country) **GO TO 11.6a**
- 03** Refused **CONTINUE**

//ASK ALL//

11.7 What is the primary language spoken in your home?

- 1 English
- 2 Spanish
- 3 Portuguese or Portuguese Creole
- 4 Chinese
- 5 Vietnamese
- 6 Haitian Creole
- 8 Cambodian/Khmer
- 10 Italian
- 11 Russian
- 12 Other (specify)_____
- 77 Don't know/not sure
- 99 Refused

//ASK IF 11.7 = 12//

11.7_oth ENTER OTHER SPECIFY

//ASK ALL//

11.8 (MARITAL)

Are you?

Please read:

- 1 Married
- 2 Divorced
- 3 Widowed
- 4 Separated

- 5 Never married
- Or**
- 6 A member of an unmarried couple living together

Do not read:

- 9 Refused

//ASK ALL//

ADULTS_CELL How many members of your household, including yourself, are 18 years of age or older?

ADULTS ___ Number of adults [RANGE 1-18]

//ASK ALL//

11.9

If you have children less than 18 years of age living in your household, going from OLDEST to YOUNGEST, what are their current ages? [READ AS NEEDED: The oldest child is the first child and the youngest child is the last. Please include children with the same birth date, including twins, in the order of their birth.]

[Record up to 9 people.]

Interviewer Note: 00= <1 year

___ ___ Code ages [RANGE 1-17]

11.9_1 What is the age of the oldest child – Child #1

11.9_2 What is the age of the second oldest child – Child #2 [Etc.]

- 0 0 <1 year
- 8 8 None/No more
- 9 8 Don't know/not sure
- 9 9 Refused

//ASK IF Q11.9 iteration/child X<88 AND 11.9 iteration/child X-1 IS LESS THAN 11.9 iteration/child X//

11.9CHK

I need to record the ages of the children younger than 18 living in your household going from the OLDEST child to the YOUNGEST child. I will re-ask these questions. To begin, I will ask for the age of the household's OLDEST child.

1. Re-Ask 11.9 **GO BACK TO 11.9**

//ASK ALL//

11.10

What is the highest grade or year of school you completed?

Read only if necessary:

- 1 Never attended school or only attended kindergarten
- 2 Grades 1 through 8 (Elementary)
- 3 Grades 9 through 11 (Some high school)
- 4 Grade 12 or GED (High school graduate)
- 5 Some college or technical school (1 year to 3 years of college or Associate's degree)
- 6 College graduate (4 to 5 years college ending in Bachelor's degree)
- 8 Some graduate school or graduate degree (such as Masters, Doctorate, MD)

Do not read:

- 9 Refused

//ASK ALL//

11.11 (EMPLOY)

Are you currently?

Please read:

- 01 Employed full-time for wages
- 10 Employed part-time for wages
- 02 Self-employed
- 03 Out of work for 1 year or more
- 04 Out of work for less than 1 year
- 05 A Homemaker
- 06 A Student
- 07 Retired
- Or**
- 08 Unable to work

Do not read:

- 09 Refused

//ASK ALL//

11.12 (RENTHOM1)

Do you own or rent your home?

INTERVIEWER NOTE: "Other arrangement" may include group home, staying with friends or family without paying rent.

NOTE: Home is defined as the place where you live most of the time/the majority of the year.

Read only if necessary:

- 1 Own
- 2 Rent
- 3 Other arrangement

Do not read:

- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

11.13A [04] Is your annual household income from all sources...Less than \$25,000 (\$20,000 to less than \$25,000)

[INTERVIEWER NOTE: If respondent asks why income information is needed or initially refuses PLEASE READ: This information is very useful in helping us understand the relationship between health and financial resources. Please remember that the information you provide is strictly confidential and not linked to your name.]

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13A = 1//

11.13B [03] Less than \$20,000 (\$15,000 to less than \$20,000)

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13B = 1//

11.13C [02] Less than \$15,000 (\$10,000 to less than \$15,000)

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13C = 1//

11.13D [01] Less than \$10,000

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13A = 2//

11.13E [05] Less than \$35,000 (\$25,000 to less than \$35,000)

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13E = 2//

11.13F [06] Less than \$50,000 (\$35,000 to less than \$50,000)

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13F = 2//

11.13G [07] Less than \$75,000 (\$50,000 to less than \$75,000)

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13G = 2//

11.13H [08] Less than \$100,000 (\$75,000 to less than \$100,000)

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

//ASK IF 11.13H = 2//

11.13I [09] Less than \$150,000 (\$100,000 to less than \$150,000)

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

//ASK IF 11.13I = 2//

11.13J [10] \$150,000 or more

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

//HIDDEN SELECTION QUESTION CREATED FOR 11.13 RESPONSE, DO NOT DISPLAY FOR INTERVIEWER//

//ASK ALL//

//IF 11.13B=2, SET INCOME=04

IF 11.13C=2, SET INCOME=03

IF 11.13D=2, SET INCOME=02

IF 11.13D=1, SET INCOME=01

IF 11.13E=1, SET INCOME=05

IF 11.13F=1, SET INCOME=06

IF 11.13G=1, SET INCOME=07

IF 11.13H=1, SET INCOME=08

IF 11.13I=1, SET INCOME=09

IF 11.13J=1, SET INCOME=10

IF ANY OF 11.13A-I=7, SET INCOME=77

IF ANY OF 11.13A-I=9, SET INCOME=99//

INCOME

- 01 Less than \$10,000
- 02 \$10,000 to less than \$15,000
- 03 \$15,000 to less than \$20,000
- 04 \$20,000 to less than \$25,000
- 05 \$25,000 to less than \$35,000
- 06 \$35,000 to less than \$50,000
- 07 \$50,000 to less than \$75,000
- 08 \$75,000 to less than \$100,000
- 09 \$100,000 to less than \$150,000
- 10 \$150,000 or more
- 77 Don't know
- 99 Refused

//ASK IF INCOME=01-10//

S11Q13AA

Your annual household income is [INSERT ANSWER FROM INCOME]
Is this correct?

- 1 Yes, correct as is
- 2 No, re-ask question

//ASK ALL//

P11.14

About how much do you weigh without shoes?
ENTER "P" FOR WEIGHT GIVEN IN POUNDS
ENTER "K" FOR WEIGHT GIVEN IN KILOGRAMS

P pounds
K kilograms

7 Don't Know
9 Refused

//ASK IF 11.14 = P//

11.14 (WEIGHT2)

About how much do you weigh without shoes?
DP NOTE: If respondent answers in metrics, put "9" in column //

Round fractions up

__ __ __ Weight
(pounds) [Range 50-776,]

//ASK IF 11.14 =50-79 OR 351-776//

11.14_A: Just to double-check, you indicated \:11.14: pounds as your weight.

IS THIS CORRECT?

1. Yes
2. No [go back to 11.14]

//ASK IF 11.14 = K//

11.14M About how much do you weigh without shoes?

NOTE: If respondent answers in metrics, put "9" in column //.

Round fractions up

__ __ __ Weight(kilograms) [Range 23-352,]

//ASK IF S7Q19M = 23-352 AND PS7Q19 = "K"//

11.14am: Just to double-check, you indicated \:11.14m: kilograms as your weight.

IS THIS CORRECT?

1. Yes
2. No, [go back to 11.14m]

//ASK ALL//

P11.15 About how tall are you without shoes?

ENTER "F" FOR HEIGHT GIVEN IN FEET
ENTER "M" FOR HEIGHT GIVEN IN CENTIMETERS

F feet
M centimeters

7 Don't Know
9 Refused

//ASK IF P11.15=F//

11.15 (HEIGHT3)

About how tall are you without shoes?

NOTE: If respondent answers in metrics, put "9" in column 121.

Round fractions down
[Enter height in Feet and Inches]
[Ex: 5 feet 9 inches would be entered as 509]

__ / __ Height[Range 300-311, 400-411, 500-511, 600-611, 700-711]

//ASK IF 11.5= 300-407, 609-711]

11.5a: Just to double check, you indicated you are //enter feet from 11.15// FEET //enter inches from 11.15// INCHES TALL.

IS THIS CORRECT?
1. Yes
2. No, go back to 11.15

//ASK IF 11.15 = M//

11.15M About how tall are you without shoes?

NOTE: If respondent answers in metrics, put "9" in column //.

Round fractions down
[Enter height in *centimeters*]
[Ex: 2 meters 5 centimeters would be entered as 205]

--- Height[Range 90-254]

//ASK IF 11.15M = 90-254 AND P11.15=M//

11.15am: Just to double check, you indicated you are //11.15m// centimeters tall.

IS THIS CORRECT?
1. Yes
2 No [go back to 11.15m]

//ASK ALL//

11.16 Are you...

Please read:

- 1 a public housing resident living in a building owned by the Boston Housing Authority
- 2 part of a household that receives rental assistance, such as "Section 8" or any other rental assistance program
- 3 neither of the above

Do not read:

- 7 Don't know
- 9 Refused

11.16ck [If 11.12 (RENTHOM1)=1 and 11.16= 1 OR 2 please read:]

I'm sorry earlier you told me that you own your home, and now you stated that you live in public housing or receive rental assistance. Which is correct?

- 01 Live in public housing is correct (Update home ownership) **GO TO 11.12**
- 02 Own home is correct (Update public assistance status) **GO TO 11.16**
- 03 Refused **CONTINUE**

//ASK IF CELLFON=2// (cell phone)

LANDLINE Do you also have a landline telephone in your home that is used to make and receive calls?

READ ONLY IF NECESSARY: "By landline telephone, we mean a "regular" telephone in your home that is connected to outside telephone lines through a cable or cord and is used for making or receiving calls. Please include landline phones used for both business and personal use."

Interviewer Note: Telephone service over the internet counts as landline service (includes Vonage, Magic Jack and other home-based phone services.).

PLEASE CONFIRM NEGATIVE RESPONSES TO ENSURE THAT RESPONDENT HAS HEARD AND UNDERSTOOD CORRECTLY.

- 1 YES
- 2 NO
- 7 DON'T KNOW / NOT SURE
- 9 REFUSED

//ASK IF CELLPH=2 (not a cell phone)//

11.17 (NUMHHOL2)

Do you have more than one telephone number in your household? Do not include cell phones or numbers that are only used by a computer or fax machine.

- 1 Yes
- 2 No

[Go to CPDEMO1]

- 7 Don't know / Not sure [Go to CPDEMO1]
- 9 Refused [Go to CPDEMO1]

//ASK IF 11.17=1//

11.17a (NUMPHON2)

How many of these phone numbers are residential numbers?

- Residential telephone numbers [6=6 or more]
- 7 Don't know / Not sure
- 9 Refused

//ASK IF CELLPH=2 (not a cell phone)//

11.18 (CPDEMO1)

Do you have a cell phone for personal use? Please include cell phones used for both business and personal use.

- 1 Yes
- 2 No [Go to SEX]
- 7 Don't know / Not sure
- 9 Refused [Go to SEX]

//ASK IF (11.18=1,7) OR (LANDLINE=1,7)//

11.18a (CPDEMO4)

Thinking about all the phone calls that you receive on your landline and cell phone, what percent, between 0 and 100, are received on your cell phone?

- — — Enter percent (1 to 100)
- 8 8 8 Zero
- 7 7 7 Don't know / Not sure
- 9 9 9 Refused

//ASK IF ASKGNDR2=MISSING AND ASKGNDR3=MISSING AND GENDER=MISSING//

11.19 (SEX)

[This question should be asked of all respondents where sex is not verified in screening process.] Are you male or female?

- 1 Male
- 2 Female
- 3 Other

CATI Note: If respondent is a male, or if respondent is a female age 50 years old or older, go to 11.21T.

//ASK IF (11.19=2 OR ASKGNDR2=22 OR GENDER=22 OR ASKGNDR3=22) AND (11.1=07, 18-49 OR 11.1a=1-4, 9, 77,99)

11.20 (PREGNANT) To your knowledge, are you now pregnant?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

11.21T The next question is about sexual orientation.

1 Continue

//ASK ALL//

11.21

Do you consider yourself to be:

Please read:

- 1 Straight or heterosexual
- 2 Gay, lesbian, or homosexual
- 3 Bisexual or
- 4 Something else [Other specify _____]

Do not read:

- 7 Don't Know/Not Sure
- 9 Refused

[Additional information for interviewers: If respondent requires further definition of the terms heterosexual, homosexual/gay/lesbian, and/or bisexual, please read the appropriate definition(s) as below:

Heterosexual: A person who has sex with and/or is primarily attracted to people of the opposite sex.

Homosexual/Gay/Lesbian: A person who has sex with and/or is primarily attracted to people of the same sex.

Bisexual: A person who has sex with and/or is attracted to people of either sex.]

//ASK IF 11.21=4//

11.21o

ENTER OTHER SPECIFY

//ASK ALL//

11.22T

Some people describe themselves as transgender when they experience a different gender identity from their sex at birth. For example, a person born into a male body, but who feels female and may live as a woman.

1 Continue

//ASK ALL//

11.22

Do you consider yourself to be transgender?

IF YES, ASK "DO YOU CONSIDER YOURSELF TO BE A) MALE-TO-FEMALE, B) FEMALE-TO-MALE, OR C) GENDER NON-CONFORMING?"

- 1 Yes, Transgender, male-to-female
- 2 Yes, Transgender, female-to- male
- 3 Yes, Transgender, gender nonconforming
- 4 No
- 7 Don't know/not sure
- 9 Refused

[NOTE: Additional Information for interviewers if asked about definition of transgender:

Some people describe themselves as transgender when they experience a different gender identity from their sex at birth. For example, a person born into a male body, but who feels female or lives as a woman would be transgendered. Some transgender people change their physical appearance so that it matches their internal gender identity. Some transgender people take hormones and some have surgery. A transgender person may be of any sexual orientation – straight, gay, lesbian, or bisexual.]

//ASK ALL//

[Interviewer: DO NOT READ!]

Lang1. In what language was this interview completed?

- 1 English
- 2 Spanish

Section 12: Depression/Anxiety

//ASK ALL//

12.1T Now, I am going to ask you some questions about how you have been feeling lately.

- 1 Continue

//ASK ALL//

12.1 During the past 30 days, for about how many days have you felt worried, tense, or anxious?

- __ __ Number of days
- 8 8 None
- 7 7 Don't know/Not sure
- 9 9 Refused

//ASK ALL//

12.2 During the past 30 days, for about how many days have you felt sad, blue, or depressed?

- __ __ Number of days
- 8 8 None
- 7 7 Don't know/Not sure
- 9 9 Refused

//ASK ALL//

12.3 During the past 12 months, have you received professional counseling or any kind of treatment, including medication, for sadness or depression?

NOTES TO INTERVIEWERS:

If respondent says they are on medication for depression, code as "YES".

If respondent says they have had just one counseling session, code as "YES".

Talking with clergy, social worker, school counselor, physician = "YES".

Talking with family, friend, teacher, lawyer = "NO".

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

12.4 Was there a time in the past 12 months when you would have seen a therapist, psychologist or psychiatrist but did not because of cost?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

12.5 Can you count on anyone to provide you with emotional support such as talking over problems or helping you make a difficult decision?

- 1 Yes
- 2 No
- 3 Respondent doesn't need help
- 7 Don't know/Not sure
- 9 Refused

Section 13: Physical Activity

//ASK ALL//

13.1T The next few questions are about exercise, recreation, or physical activities other than your regular job duties.

INTERVIEWER INSTRUCTION: If respondent does not have a "regular job duty" or is retired, they may count the physical activity or exercise they spend the most time doing in a regular month.

- 1 Continue

//ASK ALL//

13.1 During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

- 1 Yes
- 2 No [Go to Q13.8]
- 7 Don't know / Not sure [Go to Q13.8]
- 9 Refused [Go to Q13.8]

//ASK IF 13.1=1//

13.2 What type of physical activity or exercise did you spend the most time doing during the past month?

INTERVIEWER INSTRUCTION: If the respondent's activity is not included in the Coding List A, choose the option listed as "Other".

- __ (Specify) [See Coding List A]
- 9 7 Don't know / Not Sure [Go to Q13.8]
- 9 9 Refused [Go to Q13.8]

//ASK IF 13.2 NE MISSING AND 13.2 NE 77, 99//

13.2CK

INTERVIEWER: YOU'VE CHOSEN _____

IS THAT CORRECT?

- 1 YES
- 2 NO - GO BACK AND CHANGE RESPONSE

//ASK IF 13.2=98//

13.2o Enter Other Activity _____

//ASK IF 13.2<97//

13.3 How many times per week or per month did you take part in this activity during the past month?

- 1__ Times per week [range 101-150]
- 2__ Times per month [range 201-250]
- 7 7 7 Don't know / Not sure
- 9 9 9 Refused

//ASK IF 13.2<97//

13.4 And when you took part in this activity, for how many minutes or hours did you usually keep at it?

- _:__ Hours and minutes [RANGE = 1-59,100-159,200-259,300-359,400-459,500-559,600-659,700-759,800-859,900-959]
- 998 Don't know / Not sure
- 9 9 9 Refused

//ASK IF 13.2 NE MISSING AND 13.2 NE 77 99//

13.5 What other type of physical activity gave you the next most exercise during the past month?

INTERVIEWER INSTRUCTION: If the respondent's activity is not included in the Coding List A, choose the option listed as "Other".

- __ (Specify) [See Coding List A]
- 8 8 No other activity [Go to Q13.8]
- 9 7 Don't know / Not Sure [Go to Q13.8]
- 9 9 Refused [Go to Q13.8]

//ASK IF 13.5 NE MISSING AND 13.5 NE 77, 99//

13.5CK

INTERVIEWER: YOU'VE CHOSEN _____

IS THAT CORRECT?

- 1 YES
- 2 NO - GO BACK AND CHANGE RESPONSE

//ASK IF 13.5=98//

13.5o Enter Other Activity _____

//ASK IF 13.5 NE MISSING AND 13.5 NE 77, 88, 99//

13.6 How many times per week or per month did you take part in this activity during the past month?

- 1__ Times per week [range 101-199]
- 2__ Times per month [range 201-299]
- 7 7 7 Don't know / Not sure
- 9 9 9 Refused

//ASK IF 13.5 NE MISSING AND 13.5 NE 77, 88, 99//

13.7 And when you took part in this activity, for how many minutes or hours did you usually keep at it?

- _:__ Hours and minutes [range=1-959]
- 998 Don't know / Not sure
- 9 9 9 Refused

//ASK ALL//

13.8 During the past month, how many times per week or per month did you do physical activities or exercises to STRENGTHEN your muscles? Do NOT count aerobic activities like walking, running, or bicycling. Count activities using your own body weight like yoga, sit-ups or push-ups and those using weight machines, free weights, or elastic bands.

- 1__ Times per week [range 101-199]
- 2__ Times per month [range 201-299]
- 8 8 8 Never
- 7 7 7 Don't know / Not sure
- 9 9 9 Refused

Section 14: Asthma

//ASK ALL//

14.1 (ASTHMA2)

Have you ever been told by a doctor, nurse, or other health professional that you had asthma?

- 1 Yes
- 2 No **[Go to next section]**
- 7 Don't know / Not sure **[Go to next section]**
- 9 Refused **[Go to next section]**

//ASK IF 14.1=1//

14.2 (ASTHNOW)

Do you still have asthma?

- 1 Yes

- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK IF 14.2=1//

14.3 (ASTHMAER)

During the past 12 months, how many times did you visit an emergency room or urgent care center because of your asthma?

- Number of visits [87=87 or more] [RANGE=0-87]
- 88 None
- 98 Don't know / Not sure
- 99 Refused

Section 15: Falls

CATI NOTE: If respondent is 45 years or older continue, otherwise go to next section.

//ASK IF 11.1=45-99 or 11.1a=5, 6, 7, 8, or 9 //

15.1T Next, I will ask about recent falls. By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level. 1. Continue

//ASK IF 11.1=45-99 or 11.1a=5, 6, 7, 8, or 9 //

15.1 (TIMEFALL)

In the past 12 months, how many times have you fallen?

- Number of times [76 = 76 or more]
- 8 8 None [Go to next section]
- 7 7 Don't know / Not sure [Go to next section]
- 9 9 Refused [Go to next section]

//ASK IF 15.1=1//

15.2A

Did this fall cause an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor.

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK IF 15.2A=2-76//

//DATA PROCESSOR: IF 15.1=1 AND 15.2a=1, SET 15.2=1. IF 15.1=1 AND 15.2a=2, SET 15.2=88//

15.2 (FALLINJR)

How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor.

- Number of falls [76 = 76 or more]
- 8 8 None
- 7 7 Don't know / Not sure

Section 16: Alcohol & Drug Use

//ASK ALL//

16.1T Now on a different topic,

1 Continue

//ASK ALL//

16.1 (ALCDAY4)

During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage, such as beer, wine, a malt beverage or liquor?

- 1__ Days per week [range 101-107]
 2__ Days in past 30 days [range 201-230]
 8 8 8 No drinks in past 30 days [Go to PRE-NARC2]
 7 7 7 Don't know / Not sure
 9 9 9 Refused [Go to PRE-NARC2]

PROGRAMMER NOTE: S16Q1 not missing – assign flag16 = 1

//ASK IF 16.1 ne (888, 999)//

16.2 (AVEDRNK2)

One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?

INTERVIEWER NOTE: A 40 ounce beer would count as 3 drinks, or a cocktail drink with 2 shots would count as 2 drinks.

- __ Number of drinks [range 01-76]
 7 7 Don't know / Not sure
 9 9 Refused

IF: **([16.2#12-76])**

16.2CK

Just to clarify, you said that you consume X drinks per day."

- 1 Correct as is
 2 No, Re-ask question

//ASK IF 16.1 ne 888, 999//

16.3 (DRNK3GE5)

Considering all types of alcoholic beverages, how many times during the past 30 days did you have [IF S11Q19=1 OR ASKGNDR2=21 OR ASKGNDR3=21 OR GENDER=21 INSERT "5" OR S11Q19=2 OR ASKGNDR2=22 OR ASKGNDR3=22 OR GENDER=22 INSERT "4"] or more drinks on an occasion?

INTERVIEWER NOTE: If asked, "occasion" means in a row or within a few hours.

- __ Number of times [range 01-76]
 8 8 None
 7 7 Don't know / Not sure
 9 9 Refused

IF: **([16.3#16-76])**

16.3CK

I am sorry, you said that in the past month there were \:s16q3: occasions when you had [IF S11Q19=1 OR ASKGNDR2=21 OR ASKGNDR3=21 OR GENDER=21 INSERT "5" OR S11Q19=2 OR ASKGNDR2=22 OR ASKGNDR3=22 OR GENDER=22 INSERT "4"]] or more drinks.

Is this correct?

- 1 Correct as is
- 2 No, Re-ask question

//ASK ALL//

16.5 Have you ever used marijuana or hashish?

- 1 Yes
- 2 No [Go to next section]
- 7 Don't Know/Not Sure [Go to next section]
- 9 Refused [Go to next section]

//ASK IF 16.5=1//

16.6 During the past 30 days, on how many days did you use marijuana or hashish?

- ___ ___ Number of days [1-30]
- 88 None [Go to next section]
 - 77 Don't know/Not sure
 - 99 Refused

//ASK IF 16.6=1-30 OR 77 OR 99//

16.7 When you used marijuana or hashish during the past 30 days, was it for medical reasons to treat or decrease symptoms of a health condition, or was it for non-medical reasons to get pleasure or satisfaction (such as: excitement, to "fit in" with a group, increase awareness, to forget worries, for fun at a social gathering).

- 1 Only for medical reasons to treat or decrease symptoms of a health condition
- 2 Only for non-medical purposes to get pleasure or satisfaction
- 3 Both medical and non-medical reasons
- 7 Don't know/Not sure
- 9 Refused

Section 17: Women's Health

CATI note: If respondent is male, go to the next section.

//ASK IF 11.19=2 OR ASKGNDR2=22 OR ASKGNDR3=22 OR GENDER=22//

17.1T The next questions are about women's health.

1 Continue

//ASK IF 11.19=2 OR ASKGNDR2=22 OR OR ASKGNDR3=22 OR GENDER=22//

17.1 (HADPAP2)

A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?

- | | | |
|---|-----------------------|--------------------------------|
| 1 | Yes | |
| 2 | No | [Go to pre-HADMAM instruction] |
| 7 | Don't know / Not sure | [Go to pre-HADMAM instruction] |
| 9 | Refused | [Go to pre-HADMAM instruction] |

//ASK IF 17.1=1//

17.2 (LASTPAP2)

How long has it been since you had your last Pap test?

Read only if necessary:

- | | |
|---|---|
| 1 | Within the past year (anytime less than 12 months ago) |
| 2 | Within the past 2 years (1 year but less than 2 years ago) |
| 3 | Within the past 3 years (2 years but less than 3 years ago) |
| 4 | Within the past 5 years (3 years but less than 5 years ago) |
| 5 | 5 or more years ago |

Do not read:

- | | |
|---|-----------------------|
| 7 | Don't know / Not sure |
| 9 | Refused |

Pre-HADMAM CATI Instruction: Go to next section if respondent age less than 40 years. Otherwise proceed.

//ASK IF (11.19=2 OR ASKGNDR2=22 OR ASKGNDR3=22 OR GENDER=22), AND (11.1=40-99 OR 11.1a=4-8, 9)//

17.3 (HADMAM)

A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?

- | | | |
|---|-----------------------|----------------------|
| 1 | Yes | |
| 2 | No | [Go to next section] |
| 7 | Don't know / Not sure | [Go to next section] |
| 9 | Refused | [Go to next section] |

//ASK IF 17.3=1//

17.4 (HOWLONG)

How long has it been since you had your last mammogram?

Read only if necessary:

- | | |
|---|---|
| 1 | Within the past year (anytime less than 12 months ago) |
| 2 | Within the past 2 years (1 year but less than 2 years ago) |
| 3 | Within the past 3 years (2 years but less than 3 years ago) |
| 4 | Within the past 5 years (3 years but less than 5 years ago) |
| 5 | 5 or more years ago |

Do not read:

- 7 Don't know / Not sure
- 9 Refused

Section 18: Colorectal Cancer Screening

CATI Note: If respondent is <45 years of age, go to next section.

//ASK IF (11.1=45-99 OR 11.1a=05-08, 09)//

18.1T The next questions are about colorectal cancer screening.

//ASK IF (11.1=45-99 OR 11.1a=05-08, 09)//

18.1 (HADSIGM3)

Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

- 1 Yes
- 2 No **[Go to next section]**
- 7 Don't know / Not sure **[Go to next section]**
- 9 Refused **[Go to next section]**

Section 19: Food Security

//ASK ALL//

19.1T Next I'm going to read you two statements that people have made about their food situation. Please tell me whether these statements were OFTEN, SOMETIMES, or NEVER true for you or your household in the last 12 months.

- 1 Continue

//ASK ALL//

19.1 "The food that we bought just didn't last, and we didn't have money to get more." Was that often, sometimes, or never true for you or your household in the last 12 months?

[IF NECESSARY "Please tell me whether these statements were OFTEN, SOMETIMES, or NEVER true for you or your household in the last 12 months."]

- 1 Often true
- 2 Sometimes true
- 3 Never true
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

19.2 (19.4) "We were hungry but didn't eat because we couldn't afford enough food." Was that often, sometimes, or never true for you or your household in the last 12 months?

[IF NECESSARY "Please tell me whether these statements were OFTEN, SOMETIMES, or NEVER true for you or your household in the last 12 months."]

- 1 Often true
- 2 Sometimes true
- 3 Never true
- 7 Don't know/Not sure
- 9 Refused

Section 20: Discrimination

//ASK ALL//

20.1T Now I will ask about discrimination you may have experienced.

- 1 Continue

//ASK ALL//

20.1 In your day-to-day life, how often do you receive poorer service than other people at restaurants or stores due to discrimination? Would you say...

[PLEASE READ]

- 1 Almost everyday
- 2 At least once a week
- 3 A few times a month
- 4 A few times a year
- 5 Less than once a year
- 6 Never

[DO NOT READ]

- 7 Don't Know/Not sure
- 8 Refused

//ASK ALL//

20.2 In your day-to-day life, how often are you threatened or harassed due to discrimination? Would you say...

[PLEASE READ]

- 1 Almost everyday
- 2 At least once a week
- 3 A few times a month
- 4 A few times a year
- 5 Less than once a year
- 6 Never

[DO NOT READ]

- 7 Don't Know/Not sure
- 9 Refused

[PRE-20.3 INSTRUCTION: If 20.1 OR 20.2=(1-4), then go to 20.3. Else if, go to 20.4.]

20.3 What do you think is the main reason for these experiences? Is it because of...

[PLEASE READ]

- 01 Your ancestry or national origins
- 02 Your gender
- 03 Your race
- 04 Your age
- 05 Your religion
- 06 Some aspect of your physical appearance
- 07 Your sexual orientation
- 08 A physical disability
- 09 Other [specify] _____

[DO NOT READ]

- 77 Don't know/ not sure
- 99 Refused

//ASK IF 20.3 = 09 //

20.3o ENTER OTHER SPECIFY

//ASK ALL//

20.4 Have you ever felt you were stopped by the police just because of your race or ethnic background?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

Section 21: Social Determinants

//ASK ALL//

21.1T Now I am going to ask you about other factors that can affect a person's health. 1. Continue

//ASK ALL//

21.1 For how many years in a row have you lived in your current zip code? Please exclude time as a student living on a college or university campus.

- _____ Number of years [RANGE: 1-99]
- 666 Less than a year
- 777 Don't know/not sure
- 999 Refused

//ASK ALL//

21.2 How safe from crime do you consider your neighborhood to be? Would you say...

[Please read:]

- 1 Extremely safe

- 2 Safe
- 3 Unsafe
- 4 Extremely unsafe

Do not read:

- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

21.4 In the past three years, did you move because you could no longer afford your home?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

21.5a In the past 12 months, have difficulties in transportation kept you from medical appointments, meetings, work or from getting things needed for daily living?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

21.6 Have you ever served time or been sentenced to serve time in a prison, jail, or other correctional facility?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

Section 21A: Disability

//ASK ALL//

21.1AT Next I am going to ask you about issues with disability. 1. Continue

//ASK ALL//

21.1A Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

21.2A Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone, such as visiting a doctor's office or shopping?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK ALL//

21.3A Do you have serious difficulty walking or climbing stairs?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

Section 22: Adverse Childhood Experiences

//ASK ALL//

22.1T I'd like to ask you some questions about events that happened during your childhood. This information will allow us to better understand problems that may occur early in life, and may help others in the future. This is a sensitive topic and some people may feel uncomfortable with these questions. At the end of this section, I will offer you a phone number for an organization that can provide information and referral for these issues. Please keep in mind that you can ask me to skip any question you do not want to answer.

All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age—

//ASK ALL//

22.1 Did you ever live with a parent or caregiver who was depressed, mentally ill, or suicidal?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

22.2 Did you ever live with a parent or caregiver who was a problem drinker or alcoholic, or who used illegal street drugs or abused prescription medications?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

22.3 (ACEPUNCH)

How often did your parents or the adults in your home ever slap, hit, kick, punch or beat each other up? Would you say...

- 1 Never
- 2 Once
- 3 More than once

Do not read:

- 7 Don't know / Not sure
- 9 Refused

//ASK ALL//

22.4 Did you live with anyone who had served time or was sentenced to serve time in a prison, jail, or other correctional facility?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

//If 22.1=1, or 22.2=1, or 22.3 (ACEPUNCH)=2, 22.3 (ACEPUNCH) =3, or 22.4=1//

22.3T As I mentioned when we started this section, I have a phone number for an organization that can provide information and referral for these issues. Would you like that number now? **[If yes proceed:]** You can dial 1-800-792-5200 to reach a referral service to locate an agency in your area.

Section 23: Physical and Sexual Violence

//ASK ALL//

23.1T The next questions deal with intimate partner abuse, physical violence, and sexual violence. I realize these are sensitive topics and some people may feel uncomfortable with these questions. Remember that your answers are strictly confidential and that you don't have to answer a question if you don't want to. If you believe it would not be safe for you to talk about this now, or at anytime during this part of the survey, please tell me to skip to the next topic. 1. Continue

//ASK ALL//

23.2 Physical or sexual violence includes incidents involving a stranger, acquaintance, friend, family member, or someone you are in a relationship with. By physical or sexual violence we mean being pushed, slapped or hit, made to take part in any sexual activity when you didn't want to, or otherwise harmed by another person. During your lifetime as an adult, in other words since turning 18 years old, have you experienced any physical or sexual violence?

[Do not include situations that involve threats, but no physical violence]

- 1 Yes
- 2 No **[Go to PRE-23.6]**
- 3 Respondent requested to skip to next topic **[Go to next section]**
- 4 Respondent terminated interview at this point **[Go to closing, record as a**

complete]

- 7 Don't know/Not sure [Go to PRE-23.6]
- 9 Refused [Go to PRE-23.6]

//ASK IF 23.2=1//

23.3 During the past 12 months, have you experienced any physical or sexual violence?

[Do not include situations that involve threats, but no physical violence]

- 1 Yes
- 2 No [Go to PRE-23.6]
- 7 Don't know/Not sure [Go to PRE-23.6]
- 9 Refused [Go to PRE-23.6]

PRE-23.6 Now, I am going to ask you questions specifically about unwanted sex. Unwanted sex includes things like someone putting anything into your **[S11Q19=2 OR ASKGNDR2=22 OR OR ASKGNDR3=22 OR GENDER=22INSERT "vagina,"]**, anus, or mouth or making you do these things to them after you said or showed that you didn't want to.

It includes times when you were unable to give consent, for example, you were drunk or asleep, or you thought you would be hurt or punished if you refused.

23.6 Has anyone EVER had sex with you after you said or showed that you didn't want them to or without your consent?

- 1 Yes
- 2 No [Go to end of section statement]
- 7 Don't know / Not sure [Go to end of section statement]
- 8 Respondent asks to skip rest of section [Go to end of section statement]
- 9 Refused [Go to end of section statement]

//ASK IF 23.6=1//

23.7 Has this happened in the past 12 months?

- 1 Yes
- 2 No
- 7 Don't know/not sure
- 9 Refused

//ASKIF 23.2=1,7,9 or IF 23.6=1,7,8,9//

23.7T If you or anyone you know is ever in immediate danger, you can call 911 or the local police. There is also a confidential, multilingual hotline to help anyone who is being hurt, threatened, or controlled by an intimate partner, or help others who have experienced physical or sexual violence. Would you like the hotline's number? **[If yes, continue]** The hotline's number is 1-877-785-2020.

Section 24: Follow-up

//ASK IF 23.1=1,2,3,7,9//

24.1 Finally, would you be willing to be contacted at some time in the future to participate in a follow-up survey?

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused

//ASK IF 23.2=1,2,3,4,7,9//

CLOSING That's my last question. Everyone's answers will be combined to give us information about the health practices of people in Boston. Thank you very much for your time and cooperation.

Activity List for Common Leisure Activities (To be used for Section 13: Physical Activity)

Code Description (Physical Activity, Questions EXERACT3 and EXERACT4 above)

0 1 Active Gaming Devices (Wii Fit, Dance Dance revolution)	4 1 Rugby
0 2 Aerobics video or class	4 2 Scuba diving
0 3 Backpacking	4 3 Skateboarding
0 4 Badminton	4 4 Skating – ice or roller
0 5 Basketball	4 5 Sledding, tobogganing
0 6 Bicycling machine exercise	4 6 Snorkeling
0 7 Bicycling	4 7 Snow blowing
0 8 Boating (Canoeing, rowing, kayaking, sailing for pleasure or camping)	4 8 Snow shoveling by hand
0 9 Bowling	4 9 Snow skiing
1 0 Boxing	5 0 Snowshoeing
1 1 Calisthenics	5 1 Soccer
1 2 Canoeing/rowing in competition	5 2 Softball/Baseball
1 3 Carpentry	5 3 Squash
1 4 Dancing-ballet, ballroom, Latin, hip hop, zumba, etc	5 4 Stair climbing/Stair master
1 5 Elliptical/EFX machine exercise	5 5 Stream fishing in waders
1 6 Fishing from river bank or boat	5 6 Surfing
1 7 Frisbee	5 7 Swimming
1 8 Gardening (spading, weeding, digging, filling)	5 8 Swimming in laps
1 9 Golf (with motorized cart)	5 9 Table tennis
2 0 Golf (without motorized cart)	6 0 Tai Chi
2 1 Handball	6 1 Tennis
2 2 Hiking – cross-country	6 2 Touch football
2 3 Hockey	6 3 Volleyball
2 4 Horseback riding	6 4 Walking
2 5 Hunting large game – deer, elk	6 6 Waterskiing
2 6 Hunting small game – quail	6 7 Weight lifting
2 7 Inline Skating	6 8 Wrestling
2 8 Jogging	6 9 Yoga
2 9 Lacrosse	7 1 Childcare
3 0 Mountain climbing	7 2 Farm/Ranch Work (caring for livestock, stacking hay, etc.)
3 1 Mowing lawn	7 3 Household Activities (vacuuming, dusting, home repair, etc.)
3 2 Paddleball	7 4 Karate/Martial Arts
3 3 Painting/papering house	7 5 Upper Body Cycle (wheelchair sports, ergometer, etc.)
3 4 Pilates	7 6 Yard work (cutting/gathering wood, trimming hedges etc.)
3 5 Racquetball	7 7 Don't know
3 6 Raking lawn	9 8 Other_____
3 7 Running	9 9 Refused
3 8 Rock Climbing	
3 9 Rope skipping	
4 0 Rowing machine exercise	

XIII. APPENDIX C: SAS OUTPUT FOR CALCULATING WEIGHTS

RAKING WITH TRIMMING WEIGHT BY INDIVIDUAL AND GLOBAL CAP VALUE METHOD

Sample size of completed interviews: 3001

Raking input weight adjusted to population total: W3B_ATPT

Mean value of raking input weight adjusted to population total: 173.99

Minimum value of raking input weight: 9.99

Maximum value of raking input weight: 2719.96

Coefficient of variation of raking input weight: 0.87

Global low weight cap value (GLCV): 21.75

Global low weight cap value factor: Mean input weight times 0.125

Global high weight cap value (GHCV): 1043.91

Global high weight cap value factor: Mean input weight times 6

Individual low weight cap value (ILCV) factor: Respondent's weight times 0.2

Individual high weight cap value (IHCV) factor: Respondent's weight times 5

Number of respondents who have an individual high weight cap value less than the global low weight cap value

(GLCV used in weight trimming): 0

Number of respondents who have an individual low weight cap value greater than the global high weight cap value

(GHCV used in weight trimming): 0

Weighted Distribution Prior To Raking. Iteration 0

sex_ agecell17	Input Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Input Weights	Target % of Weights	Difference in %
11	20174.27	33894	-13719.73	3.864	6.491	-2.628
12	37315.93	79074	-41758.07	7.147	15.144	-7.998
13	45302.32	40107	5195.32	8.676	7.681	0.995
14	40052.72	34369	5683.72	7.671	6.582	1.089
15	49637.83	30548	19089.83	9.507	5.851	3.656
16	38735.13	19063	19672.13	7.419	3.651	3.768
17	14499.79	11722	2777.79	2.777	2.245	0.532
21	22780.21	33597	-10816.79	4.363	6.435	-2.072
22	46742.14	81858	-35115.86	8.952	15.678	-6.725
23	42304.14	42464	-159.86	8.102	8.133	-0.031
24	50133.91	38029	12104.91	9.602	7.283	2.318
25	55334.29	35444	19890.29	10.598	6.788	3.809
26	42619.37	23506	19113.37	8.163	4.502	3.661
27	16498.96	18456	-1957.04	3.160	3.535	-0.375

Input Weight Sum	Target	Sum of Weights	% of Input	Target %	Difference
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racecell3	of Weights	Total	Difference	Weights	of Weights	in %
0	92236.32	93277	-1040.68	17.665	17.865	-0.199
1	225141.92	246595	-21453.08	43.120	47.229	-4.109
2	131157.88	116474	14683.88	25.120	22.307	2.812
3	73594.88	65785	7809.88	14.095	12.599	1.496

sex_ racecell3	Input Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Input Weights	Target % of Weights	Difference in %
10	44026.94	45426	-1399.06	8.432	8.700	-0.268
11	106127.42	121193	-15065.58	20.326	23.211	-2.885
12	59442.36	51560	7882.36	11.385	9.875	1.510
13	36121.27	30598	5523.27	6.918	5.860	1.058
20	48209.37	47851	358.37	9.233	9.165	0.069
21	119014.50	125402	-6387.50	22.794	24.017	-1.223
22	71715.52	64914	6801.52	13.735	12.433	1.303
23	37473.61	35187	2286.61	7.177	6.739	0.438

ceduc18	Input Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Input Weights	Target % of Weights	Difference in %
1	40073.08	68077	-28003.92	7.675	13.038	-5.363
2	87196.38	102302	-15105.62	16.700	19.593	-2.893
3	100449.84	108191	-7741.16	19.238	20.721	-1.483
4	294411.70	243561	50850.70	56.387	46.647	9.739

mar_ stat3	Input Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Input Weights	Target % of Weights	Difference in %
1	204352.21	174759	29593.21	39.138	33.470	5.668
2	213393.20	269831	-56437.80	40.870	51.679	-10.809
3	104385.59	77541	26844.59	19.992	14.851	5.141

agecell3_ racecell3	Input Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Input Weights	Target % of Weights	Difference in %
10	32320.19	41820	-9499.81	6.190	8.009	-1.819
11	34622.09	114943	-80320.91	6.631	22.014	-15.383
12	22450.69	41790	-19339.31	4.300	8.004	-3.704
13	37619.57	29870	7749.57	7.205	5.721	1.484

20	38989.81	32429	6560.81	7.467	6.211	1.257
21	73489.65	64613	8876.65	14.075	12.375	1.700
22	45739.82	38170	7569.82	8.760	7.310	1.450
23	19573.82	19757	-183.18	3.749	3.784	-0.035
30	20926.31	19028	1898.31	4.008	3.644	0.364
31	117030.17	67039	49991.17	22.414	12.839	9.574
32	62967.37	36514	26453.37	12.060	6.993	5.066
33	16401.49	16158	243.49	3.141	3.095	0.047

 **** Program terminated at iteration 9 because all current percents differ from target percents by less than .001 ****

Weighted Distribution After Raking

sex_ agecell7	Output Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Output Weights	Target % of Weights	Difference in %
11	33893.82	33894	-0.18	6.491	6.491	-0.000
12	79073.53	79074	-0.47	15.144	15.144	-0.000
13	40106.94	40107	-0.06	7.681	7.681	-0.000
14	34369.12	34369	0.12	6.582	6.582	0.000
15	30547.87	30548	-0.13	5.851	5.851	-0.000
16	19063.07	19063	0.07	3.651	3.651	0.000
17	11722.17	11722	0.17	2.245	2.245	0.000
21	33596.86	33597	-0.14	6.435	6.435	-0.000
22	81858.79	81858	0.79	15.678	15.678	0.000
23	42463.93	42464	-0.07	8.133	8.133	-0.000
24	38029.01	38029	0.01	7.283	7.283	0.000
25	35443.76	35444	-0.24	6.788	6.788	-0.000
26	23506.04	23506	0.04	4.502	4.502	0.000
27	18456.09	18456	0.09	3.535	3.535	0.000

racecell3	Output Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Output Weights	Target % of Weights	Difference in %
0	93277.00	93277	-0.00	17.865	17.865	-0.000
1	246595.00	246595	0.00	47.229	47.229	0.000
2	116474.00	116474	-0.00	22.307	22.307	-0.000
3	65785.00	65785	0.00	12.599	12.599	-0.000

sex_ racecell3	Output Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Output Weights	Target % of Weights	Difference in %
10	45425.96	45426	-0.04	8.700	8.700	-0.000
11	121192.69	121193	-0.31	23.211	23.211	-0.000
12	51559.90	51560	-0.10	9.875	9.875	-0.000
13	30597.97	30598	-0.03	5.860	5.860	-0.000
20	47851.04	47851	0.04	9.165	9.165	0.000
21	125402.31	125402	0.31	24.017	24.017	0.000
22	64914.10	64914	0.10	12.433	12.433	0.000
23	35187.03	35187	0.03	6.739	6.739	0.000

ceduc18	Output Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Output Weights	Target % of Weights	Difference in %
1	68075.96	68077	-1.04	13.038	13.038	-0.000
2	102301.29	102302	-0.71	19.593	19.593	-0.000
3	108190.77	108191	-0.23	20.721	20.721	-0.000
4	243562.97	243561	1.97	46.648	46.647	0.000

mar_ stat3	Output Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Output Weights	Target % of Weights	Difference in %
1	174758.48	174759	-0.52	33.470	33.470	-0.000
2	269832.77	269831	1.77	51.679	51.679	0.000
3	77539.75	77541	-1.25	14.851	14.851	-0.000

agecell3_ racecell3	Output Weight Sum of Weights	Target Total	Sum of Weights Difference	% of Output Weights	Target % of Weights	Difference in %
10	41820.00	41820	-0.00	8.009	8.009	-0.000
11	114943.00	114943	0.00	22.014	22.014	0.000
12	41790.00	41790	0.00	8.004	8.004	0.000
13	29870.00	29870	0.00	5.721	5.721	0.000
20	32429.00	32429	-0.00	6.211	6.211	-0.000
21	64613.00	64613	0.00	12.375	12.375	0.000
22	38170.00	38170	-0.00	7.310	7.310	-0.000
23	19757.00	19757	0.00	3.784	3.784	0.000
30	19028.00	19028	0.00	3.644	3.644	0.000

31	67039.00	67039	-0.00	12.839	12.839	-0.000
32	36514.00	36514	-0.00	6.993	6.993	-0.000
33	16158.00	16158	-0.00	3.095	3.095	-0.000

Iteration Number	Maximum Absolute Value of Difference in Sum of Weights	Maximum Absolute Value of Difference in %	Coefficient of Variation of Weights at the Completion of the Iteration
1	10314.18	1.9754	1.13556
2	3332.79	0.6383	1.14618
3	1087.28	0.2082	1.15042
4	372.70	0.0714	1.15196
5	129.66	0.0248	1.15248
6	45.36	0.0087	1.15266
7	15.95	0.0031	1.15272
8	5.61	0.0011	1.15274
9	1.97	0.0004	1.15275

Number of Respondents Who Had Their Weights Decreased by the Trimming: 79
Number of Respondents Who Had Their Weights Increased by the Trimming: 492

Raking output weight: w4b

Weight	Mean	Min	Max	CV
W3B_ATPT	173.99	9.99	2719.96	0.868
w4b	173.99	21.75	1043.91	1.153