2023

BRFSS Data Collection Protocol with

Disposition Table

 

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Introduction   
In 1984, the Centers for Disease Control and Prevention (CDC) initiated the state-based Behavioral Risk Factor Surveillance System (BRFSS)—a cross-sectional telephone survey that state health departments conduct monthly over landline telephones and, since 2011, cell phones; the states conduct the BRFSS survey with the use of a standardized questionnaire and the technical and methodologic assistance from CDC. BRFSS collects prevalence data among noninstitutionalized adult US residents regarding their risk behaviors and preventive health practices that can affect their health. Respondent data are forwarded to CDC to be aggregated for each state, returned with standard tabulations, and published at year's end by each state. In 2020, over 400,000 interviews were conducted in the states, the District of Columbia, and participating US territories and other geographic areas.

This document provides data collectors with a BRFSS overview and outlines the processes involved with calling, disposition-code assignment, and data submission. This document does not cover details of sampling and weighting, as they are not data-collectors’ responsibilities. Specific information regarding data quality, response and/or cooperation rates, or calling outcome can be found in the yearly Summary Data Quality Report released with the annual data set.   
  
Find yearly data and support documents here: <http://www.cdc.gov/brfss/data_documentation/index.htm>.

Details of the data collection process are discussed in regularly scheduled conference calls and at the annual BRFSS meetings/training workshops. BRFSS encourages data collectors to participate in these events, as updating BRFSS data-collection protocol is a collective process that is strengthened when organizations and day-to-day stakeholders provide their input.

## The BRFSS Process

The BRFSS questionnaire was developed in collaboration with CDC and public health departments in each of the states, the District of Columbia, and participating territories. Data derived from the questionnaire provide health departments, public health officials, and policy makers with behavioral and health status information that, when combined with mortality and morbidity statistics, guide the development of health-related policies and priorities as well as help decision makers address and assess strategies to promote good health. A finalized version of the questionnaire is sent to the states each year. CDC also provides computer-assisted telephone interviewing (CATI) programming to states, but they may opt to use their own CATI programming software using the final version of the BRFSS questionnaire as a guide. States which develop their own programming systems are required to test it accurately against the CDC provided programming. States may not change the skip patterns or wording of questions in the questionnaire but are free to create state-added questions that can be customized to states’ individual needs (see below). Spanish versions of the BRFSS questionnaire are provided annually to the state health departments and the data collectors. States may modify the translation to meet the specific needs of the Spanish speaking population within their state. However, modifications of the translation must be made at the state level. States and data collectors should not use different versions of the Spanish translations within the same year. In some instances, states may insert state-added questions into the questionnaire--with permission from CDC--when such questions fit into the context of extant topics/sections and do not impede the flow of the interview. Requests should be submitted to the state project officer or the survey methodologist on the Survey Operations Team.

Annual questionnaire construction

The BRFSS questionnaire is comprised of an **annual standard core**, which includes questions asked of respondents each year; **a biannual rotating core**, which includes questions asked only in even- or odd-numbered years; **three-year and four-year rotation components**, which includes some questions collected on the core questionnaire every third or fourth year; **optional modules**, which include standardized questions adopted verbatim by the states; and **state-added questions**, which states individually customized. Appendix A includes a copy of the 2023 BRFSS questionnaire landline screening questions. Appendix B includes a copy of the 2023 BRFSS questionnaire cell phone screening questions. The full 2023 BRFSS questionnaire is available for download from the state data submission site for BRFSS coordinator and BRFSS data collectors. Data collectors will note that the 2023 questionnaire includes skip patterns for landline and cell phone interviews that administrators should follow when they are conducting interviews using a sample provided by CDC (see Sampling below). Beginning in 2021, states were be highly encouraged to adhere to high proportions of cell phone samples and lower proportions of landline samples. This is also encouraged in 2023. The table below outlines the core sections that are anticipated to be offered through 2026.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 1  Core Sections 2022-2026 | | | | | |
|  | 2022 | 2023 | 2024 | 2025 | 2026 |
| Health Status | √ | √ | √ | √ | √ |
| Healthy Days | √ | √ | √ | √ | √ |
| Health Care Access | √ | √ | √ | √ | √ |
| Exercise | √ | √ | √ | √ | √ |
| Hypertension Awareness |  | √ |  | √ |  |
| Cholesterol Awareness |  | √ |  | √ |  |
| Chronic Health Conditions | √ | √ | √ | √ | √ |
| Demographics | √ | √ | √ | √ | √ |
| Disability | √ | √ | √ | √ | √ |
| Tobacco Use | √ | √ | √ | √ | √ |
| Alcohol Consumption | √ | √ | √ | √ | √ |
| Immunization | √ | √ | √ | √ | √ |
|  | (TDAP) | (shingles) | (place flu shot) | (TDAP) | (shingles) |
| H.I.V./AIDS | √ | √ | √ | √ | √ |
|  | (with risk Q) |  | (with risk Q) |  | (with risk Q) |
| Falls |  | √ |  |  | √ |
| Physical Activity |  | √ |  |  |  |
| Breast and Cervical Cancer | √ |  | √ |  | √ |
| Lung Cancer | √ |  | √ |  | √ |
| Colorectal Cancer | √ |  | √ |  | √ |
| Drinking Driving/ Seat Belt Use |  | √ |  |  | √ |
| Inadequate Sleep | √ |  |  | √ |  |
| Oral Health | √ |  | √ |  | √ |
| Fruits and Vegetables |  |  |  | √ |  |

**Standard Core Questions:** The portion of the questionnaire that is included each year and must be asked by all states. The core may include Emerging Core questions about “late-breaking” health issues. After 1 year, these questions are either discontinued, incorporated back into the standard core or become part of the rotating core or optional modules.

**Rotating Core Questions:** The portion of the questionnaire asked by all states on an every-other-year basis. These questions regularly appear in even- and odd-numbered years.

**Three-year Core Rotation Questions:** A few questions (dealing with immunization) have been scheduled in the past to appear on the BRFSS core in three-year rotating cycles. States may use rotation core questions as optional modules in off-year questionnaires. Since 2021, additional core sections were moved from the two-year Rotating Core to the Three-Year Core Rotation. There are also a few questions which appear every four years on the questionnaire.   
  
**Optional Modules:** Optional modules are sets of standardized questions on various topics that each state may select and include in its questionnaire. Once selected, a module must be used in its entirety and asked of all eligible respondents. If an optional module is modified in any way (e.g., if a question is omitted), then the questions will be treated as state-added questions (see below).

In order to achieve a wide range of data, states may choose to “split” samples in order to give different modules to each smaller group of participants. For example, if a state adopts a questionnaire that is too long to ensure respondent cooperation, the state may choose to provide a version of the questionnaire with the core and a subset of modules. In this way a greater number of modules may be used if the state uses different modules on different versions of the questionnaire. Some respondents, therefore, will answer the core questionnaire and one set of modules, while others answer the core questionnaire and a different set of modules. States are required to conduct at least 2,500 interviews for each of the versions of the split questionnaire in order to have enough responses for weighting purposes. States may adopt up to three versions of the questionnaire, each including the core (with standard and rotating core questions) and a specified number of modules, which will differ by version. States must include modules on both landline and cell phone interviews. Versions must also be included in both samples.

In many instances, states may prefer to insert optional modules into the core questionnaire. This may be done to improve the flow of the questionnaire by grouping questions on similar topics. The following optional modules may be inserted into the questionnaire **at the discretion** of the BRFSS coordinators:

|  |  |
| --- | --- |
| **Name of Optional Module** | **Approved section of questionnaire** |
| Industry and Occupation | After the employment question in the demographics section |
| Diabetes/  Pre-diabetes | After the diabetes question in the chronic disease section |
| Adult HPV, Place of Flu vaccination, Shingles | In Immunization section |
| Sex at Birth | In demographics after CDEM.03 |
| Sexual Orientation and Gender Identity | In Demographics section just after the question on sex at birth (CDEM.03), |

All other insertions of optional modules into the core sections should be approved by CDC prior to implementation of the survey.

**State-added Questions:** BRFSS encourages states to add their own extra questions to their questionnaire, so they can gather data on additional topics related to their specific health priorities. All questions included in the BRFSS, with the exception of state-added questions, are cognitively tested prior to inclusion in the questionnaire. It is up to each state to decide whether or not it will cognitively test its state-added questions before use. State-added questions may not be inserted into the text of the core questionnaire or optional modules without approval from BRFSS. States should contact their project officers to request insertion of state-added questions into text that has been approved for use by all states.

The wording of the questions in any part of the BRFSS, with the exception of state-added questions, is determined at the annual BRFSS meeting (in spring or early summer), where BRFSS partners vote to adopt questions submitted by CDC programs. A governing group including state BRFSS coordinators, CDC staff and others known as the BRFSS Working Group, may add questions on emerging issues (such as the H1N1 flu questions added in 2009 and e-cigarette use in 2014). In 2023 an emerging core section on long-term effects of COVID is included in the questionnaire. A field test of new questions, modules and those sections of the questionnaire affected by new questions is conducted after the state voting process. CDC then designs core components and optional modules and produces data processing layouts, while considering state priorities, potential funding, and other practical aspects. Minor changes in question wording and format may be made after the field test. The new BRFSS materials for the next surveillance year are then sent to the states, which may add their own questions that they have designed or acquired. A target of November 1 is set for finalization of the questionnaire for the upcoming year.

Data collectors should have the capacity to make modifications, including addition of questions, during the course of the year. In addition, data collectors must be capable of adjusting screening questions that determine eligibility during the course of the year.

## Data Collection

Data collection follows a suggested BRFSS interviewing schedule; all calls for a given survey month should be completed in the same sample month if possible. In some cases, samples begun in one month may be completed in the first 7-10 days of the next month. Up to 6 calling attempts may be made for each landline and cell phone number in the sample, depending on state regulations for calling and outcomes of previous calling attempts. Although states have some flexibility in distribution of calling times, i*n general*, surveys are conducted using the following calling occasions[[1]](#footnote-2):

Landline calling hours:

* Conduct 40% of landline calling attempts on weekdays (before 5:00 PM)
* Conduct 40% of landline calling attempts on weeknights (after 5:00 PM) and weekends
* Conduct 20% of landline calling attempts on the weekend.

Cellphone calling hours:

* Conduct cell phone calling attempts during all three calling occasions (weekday, weeknight, and weekend), with approximately 30% on weekend calling occasions.
* Change schedules to accommodate holidays and special events.
* Make weeknight calls after 5:00 PM.
* Adhere to respondents’ requests for specific callback/appointment times whenever possible. Weekends have been shown to be good times for callback scheduling.

With larger portions of state-level samples or the entire sample allocated to cell phone numbers, states may modify the calling schedule for efficiency. Data collectors must develop and maintain procedures to ensure respondents’ confidentiality, assure and document the quality of the interviewing process, and supervise and monitor the interviewers. CDC does not authorize the taping of interviews. Data collectors should keep in mind that state laws on recording conversations may vary, and there is no certainty when dialing a cell phone number as to where respondents are currently residing and accepting calls. Should a data collector record a call for any reason (such as training), CDC must be notified and approve of the procedure. In all cases where quality is being monitored by recording calls, respondents should be notified before the first questions are posed.

Each telephone number in the CDC-provided sample must be assigned a final disposition code to describe the result of calling the number:

* A completed or partially completed interview (see definitions in Appendix B) or
* A determination that:
  + A household was eligible to be included but an interview was not completed or
  + A telephone number was ineligible or could not have its eligibility determined.

The final disposition codes are then used to calculate response rates, cooperation rates, and refusal rates. The distribution of individual disposition codes and the rates of cooperation, refusal, and response are published annually in the Summary Data Quality Reports. BRFSS uses standards set by the American Association of Public Opinion Research (AAPOR) to determine disposition codes and response rates. All BRFSS disposition codes and rules for assigning disposition codes are provided in Appendix B: Disposition Table with Callback Rules. Given the myriad outcomes for assigning specific codes associated with technological barriers. Data collectors must follow the rules for assigning disposition codes and train and monitor interviewers in the use of specific dispositions.

## Survey Protocol

BRFSS sets standard protocols for data collection, in order to maintain consistency across states that permits state-to-state data comparison. Data collectors should follow the assignment of disposition codes provided in Appendix B: Disposition Table with Callback Rules. Disposition codes follow the format of 1000-1999 completed/partially completed; 2000-2999 non-completed interviews with eligible respondents/households; 3000-3999 non-completed interviews with unknown eligible persons/households; 4000-4999 ineligible numbers; 5000-5999 interim dispositions. A 2000 level disposition should not be assigned unless the interviewer is certain that both the household and respondent are eligible for the survey. Assigning incorrect disposition codes can lower response rates and efficient use of the sample. The following items are included in the BRFSS survey protocol:

1. All states must include the core questions and introductory scripts without modification. States may choose to add any, all, or none of the optional modules and state-added questions after the core component. Interviewers may not offer information to respondents on the meaning of questions, words, or phrases beyond the interviewer instructions provided by CDC and/or the state BRFSS coordinators. States may not insert state-added questions into the core component or into optional modules without permission. State coordinators should contact their CDC project officers to request the placement of state-added questions into text that has been approved for use by all states.

2. Systematic, unobtrusive electronic monitoring is a routine and integral part of monthly survey procedures for all interviewers. States may also use callback verification procedures to ensure data quality. Unless supervisory monitoring of 10% of all interviews is being routinely conducted, a 5% random sample of each month’s interviews must be called back to verify selected responses for quality assurance. Recording calls as part of quality assurance is not part of the BRFSS methodology and recording interviews without respondent knowledge is not legal in all states. Data collectors should remember that cell phone numbers may reach respondents in any state or country, where laws on recording calls may be different than in the state where the call originated.

3. An eligible household is defined as a housing unit that has a separate entrance, where occupants eat separately from other persons on the property, and that is occupied by its members as their principal or secondary place of residence. The following are non-eligible households: vacation homes not occupied by household members for more than 30 consecutive days per year, group homes, institutions, and (in the landline telephone sample) households in states other than the one conducting the BRFSS questionnaire. Persons in a state’s cell phone sample who are residents of other states are eligible for interview. The state contacting the respondent should complete the core questionnaire and then provide the data to CDC for transfer to the appropriate state of the respondents’ residence. States should especially attempt to obtain the state of residence of respondents who indicate that they have moved and retained their cell phone number from another state. States should collect verbatim county information on persons who live in other states in order to permit the correct weight for the respondent after data are transferred. Since 2012, persons living in college housing have been included as eligible respondents. Although it is rare to contact a college housing resident in the landline sample, this person would also be included as a single adult household. The BRFSS is a self-reported survey. If respondents report that they live in private residences, it is not the role of interviewers to question them. The only instances under which there is discussion of information on whether households qualify as private residences is when respondents initiate the question.

4. Eligible household members include all related adults (aged 18 years or older), unrelated adults, boarders/roomers, live-in au pairs or students and domestic workers who consider the household their home, even though they may not be home at the time of the call. College housing residents are treated as single adult households. Household members do not include adult family members (including students) who are currently living elsewhere.

5. Questions should be read verbatim. In many cases introductory phrases are provided which should also be read as written. Interviewer instructions are optional and can be read if the respondent is confused or needs additional information. Items in parentheses in statements are also optional and may be read for clarification. Interviewers should not offer their own interpretation of questions or response options.

6. Proxy interviews are not conducted in the BRFSS. For people interviewed on landline telephones, individual respondents are randomly selected from all adults living in a household and are interviewed in accordance with BRFSS protocol. Household members include all family members, domestic servants, and au pair or live-in students who have resided at the residence for at least 3 months. Cell phone interviews are conducted with respondents who answer the number called and are treated as one-person households.

7. An interview is considered complete if data are collected for all questions which would have normally been asked for any selected respondent. Partially completed interviews are defined as those where the first sections of the interview are completed and the portions of the demographic section which are used for weighting are also asked of the selected respondent in regular order of the questionnaire. For the 2023 questionnaire this will include through question CDEM.11 for both landline respondents and cell phone respondents. If the respondent does not provide substantive responses for weighting variables (that is, the respondent refuses to answer or responds that he/she does not know), imputed values will be generated and used only to assign weights. Respondent sex is the only weighting variable which is not imputed if a respondent fails to answer. If a respondent will not answer questions on sex and/or sex at birth the interviewer should terminate the interview. This a due to the fact that data from persons who refuse these questions cannot be weighted to a known population margin. **If an interviewer codes a number of responses as “don’t know” or “refused” just prior to cut off in order to have an interview count as a partial complete, this will be noted by the CDC staff as potential falsification of data. States should monitor data collection to ensure that the percentage of partial completes is not greater than 15% of the number of completes. A large percentage of partial completes could result in missing data for variables that follow the demographic sections including all optional modules. The number of partial completes which are not part of the RFP may be higher, if the state has contracted with the data collector ONLY on the number of 1100 dispositions.**

8. Data collectors are responsible for ensuring that codes for refusal or DNK are not entered as data for questions which have been skipped and/or not asked due to termination/refusal/drop off.

9. With the exception of verbally abusive respondents, eligible people who initially refuse to be interviewed may be contacted at least one additional time and given the opportunity to be interviewed. Preferably, this second contact will be made by a supervisor or a different interviewer. Some states have regulations on whether refusals should be called again and the manner of the refusal conversion. For example, a period of two days between the initial refusal and second attempt is often standard protocol. Data collectors should contact the state BRFSS coordinator to determine the state’s policy on calling back refusals. Some states maintain an internal list of numbers which connect to households/persons who have been particularly adamant about being taken off calling lists. Numbers from new samples are matched against these lists to prevent calling the numbers. States generally maintain a number on the list for up to two years. Numbers de-duped as a result of such lists should be coded with dispositions of 3700. Just because a potential respondent says that they are on the “do-not-call” list does not mean that this is accurate. Moreover, the do not call lists do not apply to legitimate research calls.

10. States are required to give a final disposition for every number in the sample, usually within the same month of the sample. States should complete all calling on each monthly sample within that month. A few states receive and account for all calling on a sample on a quarterly basis rather than a monthly basis. Data collectors should contact the state BRFSS coordinator to verify whether the state is receiving a monthly or quarterly sample from CDC.

11. The BRFSS OMB number and burden statement must appear on the header page of all interviewer forms. The CDC will provide the header with the questionnaire each year. Please note that the interviewers do not need to read any part of the OMB number or burden statement to the respondents unless asked. The entire burden statement does not need to be read if the respondent is simply asking how long the interview will take. If the respondent asks for any information at any time about the authority by which information is being collected, it is imperative that the OMB approval information be available to the interviewer. The interviewer may then cite the OMB control information, which would allow the respondent to review the project plan online.

12. CDC provides the states with a Spanish translation of the BRFSS questionnaire. Unlike the English version, states may change wording of the Spanish version in order to match local dialects. The Spanish version may not include translation of CATI programming, but will include questions, responses and any interviewer note which might be read to respondents. Instructions to interviewers which are not read to respondents may not appear on the translated version of the questionnaire.

13. Each data collector must assign a unique identifier to each interviewer, so that state health departments and the CDC may conduct interviewer-level analyses. This identifier should not be assigned to other interviewers working on the BRFSS for that state. Responses by interviewer ID numbers should be conducted periodically to check for unusual responses and productivity by interviewer. The use of the interviewer ID can be helpful to insure that the questionnaire is being correctly administered.

General callback and disposition coding rules are established by CDC (see Appendix B), and states are encouraged to adhere to them whenever possible. The calling rules are not universally applicable to each state. Data collectors contracted by the states should have the capacity to adhere to the calling rules listed below as well as those to in Appendix B.

1. ***All cell phone numbers must be hand dialed.*** Data collectors should seek legal advice if they are uncertain whether their practices are in any way contradictory to the regulations.
2. New callback rules allow for phone numbers without contact to have a maximum number of calling attempts at 6. If any interim disposition indicates that contact has been made, the number of calling attempts will be increased to 8. Interim disposition codes beginning with 5 indicate contact has been made; interim disposition codes beginning with 6 indicate that no person was actually contacted by the calling attempt.
3. Interviewers should be trained specifically for the BRFSS and retrained each year.
4. If possible, calls made to non-English-speaking households and assigned the interim disposition code of 5330 (household language barrier) should be attempted again with an interviewer who is fluent in the household language (e.g., Spanish).
5. States should maximize calling attempts as outlined in Appendix B. The maximum number of attempts (8) may be exceeded if formal appointments are made with potential respondents. There are many instances in which the maximum number of callbacks is not required. States and data collectors should refer to the callback table provided in Appendix B with this document for the required number of callbacks for each calling outcome/ disposition.
6. Calling attempts should allow for a minimum of 6 rings and up to 10 rings if not answered or diverted to answering devices.
7. The maximum number of attempts may be set by the states. CDC recommends a maximum of 8 calling attempts. All numbers must be assigned a final disposition. Data should not be submitted with interim dispositions.
8. Messages left on answering devices/voice mail devices should be left by interviewers. **Messages should never be left by any automated voice devices**. States may have their own standard scripts for messages, describing the reasons for the call and when respondents might expect a return call. Messages can be left after any attempt. It is not recommended that respondents be burdened by repeated messages. States should adopt protocols to leave one or two messages during the calling attempts for a single number during the calling period. In order to minimize the potential effects of spam filters, it is recommended that messages be left on the first or second attempt. Some states have noted that leaving messages may hinder subsequent contact. States may track the benefits associated with leaving messages.
9. States may use text messages to remind respondents of an upcoming appointment for interview, However text messages may not be sent without respondent permission to do so.
10. If a respondent indicates that they will be available for a callback at a specific time/date, appointments may be made. Data collectors may send texts reminding cell phone respondents of the appointments after receiving verbal permission to text that information.
11. States adopting the Adverse Childhood Experience (ACE) Module, should train interviewers on how to handle respondents who become upset or stressed as a result of the questions.

## Using the BRFSS Sample

In some instances, states design samples within boundaries of sub-state geographic regions. States may determine that they would like to sample by county, public health district, or other sub-state geography in order to make comparisons of geographic areas with their states. To conduct the BRFSS, states get samples of telephone numbers from CDC. States then review their sampling methodology with a state statistician and CDC to make sure data collection procedures are in place to follow the methodology. States must consult with CDC before making changes to methodology. States must maintain sample phone numbers in files that are separate from responses, in order to maintain standards of respondent confidentiality.

In states where landline calls are still being made, the BRFSS uses two separate samples: one for landline telephone respondents and one for cell phone respondents. State BRFSS coordinators work with CDC to produce all samples The states are ultimately responsible for the distribution between landline and cell phones. Since landline telephones are often shared, household sampling is used in the landline telephone sample. Household sampling requires interviewers to collect information on the number of adults living in a residence and then select randomly from all eligible adults (see questionnaire). Cell phone respondents are treated as single adult households and therefore do not require household sampling. The samples are fully overlapping, so that any eligible person in the landline frame may also be eligible in the cell phone frame. States receive the sample monthly or quarterly, approximately by the 15th. Note that the BRFSS is a sample with replacement. It is possible, therefore, for a single household/respondent to be eligible and appear in a sample more than once within a year. Some states eliminate duplicate (“de-dup”) numbers that appear within the same quarter. A state with sub-state regions that represent small areas is more likely to encounter repeat numbers in the sample. States that wish to send advance letters should request addresses with their regular landline and cell phone samples. For states that send advance letters, mailing addresses are appended to telephone numbers. Data collections should release all replicates (of 30 numbers) in the sample in the first week of each month. Those who receive samples quarterly should release them in a manner that allows for sufficient calling prior to the end of the quarter. Beginning in late 2021 cell phone respondents who live in other states have been included in the cell phone sample. Therefore it is not unusual to have area codes which are outside the state appear in the state sample. The table below provides the format for the landline and cell phone sample files received by the states.

| **Field Name** | **Size** | | | **Position** | **Format/Values/Explanation** |
| --- | --- | --- | --- | --- | --- |
| Phone Number (AREACODS, PREFIXS, SUFFIXS) | 22 | | | 1-22 | 9,1-*NNN*-*NNN*-*NNNN*v20231 |
| Geographic Stratum (\_GEOSTRS) | 3 | | | 23-25 | First position = 2 for Cell Phone. Then  States with no geographic strata=01 in each record. Others according to provided information. |
| Density Stratum (\_DENST2S) | 1 | | | 26 | 1=Listed number, 2=Not listed one-plus block, 3=Zero block, 9=Not applicable (GU, PR, VI). |
| Sequence Number (SEQNO) | 10 | | | 27-36 | A unique 10-digit number for a state for a year with year in the first four digits. For example: 2023000001. |
| Number of Records Selected From Stratum (NRECSELS) | 6 | | | 37-42 | Number of telephone numbers (eligible sampling units) selected from stratum. |
| Number of Records in Stratum (NRECSTRS) | 9 | | | 43-51 | Number of telephone numbers in the stratum from which sample was selected. |
| Precalling [Cell-WINS Screening] Status (PRECALLS) | 1 | | | 52 | 1=Active, 3=Inactive, 7=Unknown Status, 8=Non-Answerable Device, 9=Temporarily Out of Service |
| Replicate Number (SMONTH, REPNUM) | 6 | | | 53-58 | The first two digits, 01-12, represent months, the last four digits a sequential number starting with 0001 each month. |
| Replicate Depth (REPDEPTH) | 2 | | | 59-60 | A sequential number from 01‑30 in each replicate. |
| State FIPS Code (\_STATE) | 2 | | | 61-62 | FIPS code of assigned state. |
| County FIPS Code (ASGCNTY) | 3 | | | 63-65 | Blank |
| County FIPS Code of Listed Number (LISTCNTY) | 3 | | | 66-68 | Blank |
| Number of Listed Household Numbers in Prefix in Assigned County (NOHHCTY) | 4 | | | 69-72 | Blank. |
| NXX Type (NXXTYPE) | 2 | | | 73-74 | Blank |
| Block Size (BLCKSIZE) | 3 | | | 75-77 | Blank |
| Number of Listed Households in Prefix (LSTHHPRE) | 5 | | | 78-82 | Blank |
| Estimated Total Households in Prefix (TOTHHPRE) | 5 | | | 83-87 | Blank |
| Core Based Statistical Area  (CBSACODE) | 5 | | | 88-92 | Blank |
| Metropolitan Status Code (MSCODE) | 1 | | | 93 | Blank |
| Rate Center Name | 30 | | | 94-123 | The name of the rate center associated with the phone number. |
| V&H Coordinate (VNHCOORD) | 10 | | | 124-133 | Blank |
| Date Sample Generated (DATESMP) | 10 | | | 134-143 | *mm/dd/yyyy* |
| Pre-screening Process Used  (PRESCREN) | 1 | | | 144 | 0= Not screened  1=ID 2=ID Plus  3 = CSS  4=Cell-WINS |
| Date Sample Pre-screened  (DATESCRN) | 10 | | | 145-154 | Blank |
| Release Date of Active Prefix Database (PHNRLDAT) | 10 | | | 155-164 | Blank |
| Release Date of Listed Phone Number Database (LSTRLDAT) | 10 | | | 165-174 | Blank |
| CLEC Number (CLEC) | 1 | | | 175 | Blank |
| Replicate designated for inclusion in Multi-Mode Mail Survey and address match status (MSREPMCH) | 1 | | | 176 | Blank |
| Time Zone | 1 | | | 177 | Blank |
| Primary or Secondary Phone (PRISECPH) | 1 | | | 178 | Blank |
| Listed in one of the following Databases: InfoUSA, Experian, (DIRLST) | 1 | | | 179 | Blank |
| Secondary Screening Flags | | 1 | 180 | | Blank |
| Indication of Address Matching | | 1 | 181 | | Blank |
| Path variable (PATH) used to help identify which questionnaire is used when there are dual questionnaires. | | 2 | 182-183 | | 10 = Default Genesys value Landline Survey Sample  20 = Default Genesys value Cell Phone Survey Sample |

|  |
| --- |
| Note: Monthly files will be sorted by stratum, replicate, and depth. The order of numbers within a replicate will be randomized before assignment of depth numbers. All numeric fields are right aligned and padded with leading zeros. All character fields are left aligned with trailing blanks. |

Each phone number is assigned a precall status to indicate whether the number should be called. States may opt to call landline telephone numbers with precall status >1 but are not required to do so. States may also choose not to call landline numbers from the unlisted portion of the sample with precall status = 1 which also have secondary screening status as fax/modem lines or are listed as “busy” by the precall screener. Late in 2019, additional options to not call landline numbers with precall=1, density strata =2 and which also have secondary screeners of 2 or 3. This will continue in the 2023 administration.

States are not required to call cell phone sample numbers with an “inactive” precall status but may choose to do so. States should call all cell phone numbers with active and unknown precall status in the cell phone samples. In 2023, new screening is provided for cell phone numbers which are likely to be used for a device other than a phone (such as a security system or tablet) and numbers which are identified as “temporarily out of service”. States are not required to call cell phone numbers with these new pre-codes (8 and 9, respectively). States which have higher proportions of numbers with precall status 8 may choose to dial the numbers once or twice to ensure that the screening is not eliminating active numbers. Given that the precall status indicates the potential for reaching an eligible respondent, calling landline numbers with precall >1 or cell phone numbers with inactive precall status may reduce response rates. States may also use the secondary precall status to assign bilingual interviewers to numbers with language barrier precall assignments or make extra efforts to reach numbers which have precall status indicating residence/household status. In 2023, landline phone numbers will be differentiated in the sample as precall > 1 if a technical review indicates that the number is never answered or a business. This should reduce the calling efforts for landline no answers, which typically represent more than half of the final dispositions for landline sample. In 2023 the number and percentage of landline numbers in the sample will be reduced substantially for many states. Although the BRFSS may maintain the landline sample for several more years, it will eventually be phased out of the sampling process. For some states landline numbers are an important way to ensure that rural residents are included in the sample. As cell phone sampling improves in terms of geographic specificity, the need for landline numbers in the sample will diminish. The 2023 landline sample will also include fewer unlisted numbers (that is that the numbers are not from unlisted blocks). During the course of the year, if internal checks on the use of listed blocks shows that it is feasible, numbers from unlisted blocks may be eliminated from the sample. Data collectors should not change their practices for calling landline numbers in the sample until such a determination is made.

The landline sample is taken from listed and unlisted numbers at a ratio of 1:4. The ratio has changed from previous years due to the changes in stability of the landline samples. In 2023 the landline ratio of listed/unlisted numbers may change as landline sampling continues to be dynamic. Data collectors should expect changes in this ratio, and/or the elimination of unlisted numbers from the landline sample in 2023.

States that request addresses may send advance letters to those households to alert them to the fact that they will be receiving calls and the nature of the survey. States may include a toll-free number for potential respondents to inquire about the BRFSS. Studies have shown that the use of advance letters does improve response rates. However, the proportion of the landline sample that is accurately matched to addresses is declining. Currently about 20-30% of the landline sample is accurately matched to an address. In 2023 the BRFSS will also support sending advance letters to cell phone respondents. The ability to match cell phone numbers to addresses is improving—recent estimates show that about 40% of cell phone numbers will match to an address. Less is know about whether the phone number/address match is accurate. Since the cell phone sample is at the individual rather than household level, letters should specify which phone number connected to that address has been chosen. In order to maintain confidentiality, it is required that only portions of the phone number (such as the last four digits) be noted in the advance letters for cell phone respondents. The CDC will make every effort to provide addresses for advance letter as early as possible during each month. Data collectors should note that the cell phone sample is appended with landline numbers which have been ported to cell phone in previous months. Therefore, the landline sample files may arrive earlier in the month than cell phone samples. Data collectors should speak to their BRFSS state coordinators about advance letters.

Samples for US territories differ from those from the states. BRFSS coordinators in US territories may deviate from the calling and sampling guidelines to fit the data needs of their jurisdictions. Data collectors should work closely with state BRFSS coordinators to ensure that the sample is properly managed. CDC will provide quarterly sample productivity tables on the upload/download site to alert the state coordinators of any problems with sample management.

Data collectors can track samples and productivity using the YTD Data Quality Reports (DQR) available with assigned logins on the upload site. The following table of contents lists the information available in the YTD Data Quality Reports. Changes in the information provided in the DQRs may change according to the needs of the data collectors and state coordinators. BRFSS Coordinators and Data Collectors may attend training on using the YTD reports and Uploading Data at the annual BRFSS Questionnaire Meeting.

|  |
| --- |
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Summary Data Quality Reports are also available on the BRFSS website for previous years. States may compare their data productivity to that of other states in the summary reports, but will not have access to the YTD reports from other states.

## Data Submission

CDC will provide a data layout file for monthly data submission. The BRFSS provides a data submission website to be used for uploading states’ data and monitoring the progress of processing. Access to this site is limited and requires a login accepted by CDC. Details on data submission are included in separate documents available on the upload/download site. Data collectors should download and run edit fix programs from the upload site prior to submitting data. Errors in submitted data will delay processing and may result in data sets being returned to states for corrections. Monthly data submission is preferable (and required during flu season, September-June). Data for each should be submitted by the 25th of April, July, October and January, respectively. Following the quarterly submissions, states will receive a data file for checking.

## Data Sharing, Security and Rights to the Datasets

State and territorial health departments are the owners of the datasets. Data Collectors which are contracted by health departments have NO data rights and should not share or publish from state data sets without written permission. States should consider carefully before permitting use of data which are not part of the public use dataset. Persons seeking access to county code information, industry and occupation information or other variables which are not part of the public use dataset may apply for access through the CDC Research Data Center (RDC) at https://www.cdc.gov/rdc/index.htm.

While the Privacy Act is not applicable, the appropriate security controls and Rules of Behavior should be incorporated to protect the confidentiality of information, proprietary, sensitive, and Personally Identifiable Information (PII) the data collector may come in contact with during the BRFSS data collection process. The BRFSS itself does not require any PII to be provided by the respondents.

As is noted elsewhere in this document, sample files and response files should not be merged or linked. Data collections should transmit data only through the upload sites provided by CDC and not by email attachments or other means. Data collectors should maintain the most recent virus protections, operating systems patch levels and other security measures to all computers used to collect BRFSS data. While computers used for CATI data collection are not in all cases accessible to the internet, data collectors should ensure that access to data using flash drives or other devices is restricted to authorized individuals for authorized purposes.

Sample files should not be retained past the data of final use for BRFSS purposes. BRFSS sample file use is restricted to completion of BRFSS data collection and data collection for BRFSS call-back surveys. BRFSS sample files are not to be used for any other or subsequent purpose. Data collectors may not obtain permission for such use from respondents and are restricted from soliciting BRFSS respondent to take part in other surveys, internet panels or any other related use.

Data collectors should not retain sample or data files beyond the time that is necessary to finalize data. During the time that datasets are retained by data collectors, they should meet all security requirements for data storage and firewalls that are included in the most current BRFSS OMB approval. Data collectors may choose to configure computers that contain BRFSS data with the applicable United States Government Configuration Baseline (USGCB) (see http://usgcb.nist.gov/). Note: USGCB is applicable to all computing systems, including desktops and laptops—regardless of function—but not including servers.

## State Pilot Projects Using Protocol Adjustments

At any time during the data collection process, states may make greater efforts to reach respondents than the protocols listed here. These efforts may include increasing the number of attempts, increasing the ring times, calling all numbers in the sample regardless of the precall status or increased interviewer monitoring or training. On occasion states may wish to make adjustments to the data collection protocol in order to test the efficiency of a new procedure. For example, in 2017, one state determined that response rates might improve if the interviewer took a more conversational tone during the introduction of the survey. The protocol adjustment was approved and the change was made and tested by the state. States, and data collectors who wish to make protocol adjustments must have written approval from CDC in order to make adjustments. State coordinators should contact their project officers and the survey operations team at the Public Health Surveillance Branch of the Division of Population

# Appendix A: 2023 BRFSS Questionnaire Landline Introduction

Landline Introduction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Question Number | Question text | Responses  (DO NOT READ UNLESS OTHERWISE NOTED) | SKIP INFO/ CATI Note | Interviewer Note (s) | Comments |
| LL01. | Is this [PHONE NUMBER]? | 1 Yes | Go to LL02 |  |  |
| 2 No | TERMINATE | Thank you very much, but I seem to have dialed the wrong number. It’s possible that your number may be called at a later time. |
| LL02. | Is this a private residence? | 1 Yes | Go to LL04 | Read if necessary: By private residence we mean someplace like a house or apartment.  Do not read: Private residence includes any home where the respondent spends at least 30 days including vacation homes, RVs or other locations in which the respondent lives for portions of the year. |  |
| 2 No | Go to LL03 | If no, business phone only: thank you very much but we are only interviewing persons on residential phones lines at this time.  NOTE: Business numbers which are also used for personal communication are eligible. |
| 3 No, this is a business |  | Read: Thank you very much but we are only interviewing persons on residential phones at this time.  TERMINATE |
| LL03. | Do you live in college housing? | 1 Yes | Go to LL04 | Read if necessary: By college housing we mean dormitory, graduate student or visiting faculty housing, or other housing arrangement provided by a college or university. |  |
| 2 No | TERMINATE | Read: Thank you very much, but we are only interviewing persons who live in private residences or college housing at this time. |
| LL04. | Do you currently live in\_\_(state)\_\_\_\_? | 1 Yes | Go to LL05 |  |  |
| 2 No | TERMINATE | Thank you very much but we are only interviewing persons who live in [STATE] at this time. |
| LL05. | Is this a cell phone? | 1 Yes, it is a cell phone | TERMINATE | Read: Thank you very much but we are only interviewing by landline telephones in private residences or college housing at this time. |  |
| 2 Not a cell phone | Go to LL06 | Read if necessary: By cell phone we mean a telephone that is mobile and usable outside your neighborhood.  Do not read: Telephone service over the internet counts as landline service (includes Vonage, Magic Jack and other home-based phone services). |
| LL06. | Are you 18 years of age or older? | 1 Yes | IF COLLEGE HOUSING = “YES,” CONTINUE;  OTHERWISE GO TO NUMBER OF ADULTS LL09 |  |  |
| 2 No | IF COLLEGE HOUSING = “YES,” Terminate;  OTHERWISE GO TO NUMBER OF ADULTS LL09 | Read: Thank you very much but we are only interviewing persons aged 18 or older at this time. |
|  |  |  | ONLY for respondents who are LL and COLGHOUS= “YES,” . |  |  |
| LL07. | Are you? | Please read:  1 Male  2 Female | Transition to Section 1 | We ask this question to determine which health related questions apply to each respondent. For example, persons who report males as their sex at birth might be asked about prostate health issues. |  |
| 3 Unspecified or another gender identity  Do not read:  7 Don’t know/Not sure  9 Refused | Go to LL08 |  |
| LL08 | What was your sex at birth? Was it male or female? | 1 Male  2 Female | Transition to Section 1 | Read if necessary:  “What sex were you assigned at birth on your original birth certificate?” | Question is only asked if respondent does not respond to previous question. |
| 7 Don’t know/Not sure  9 Refused | If ‘7’ or ‘9’ then terminate.  “Thank you for your time, your number may be selected for another survey in the future.” |
| LL09. | I need to randomly select one adult who lives in your household to be interviewed. Excluding adults living away from home, such as students away at college, how many members of your household, including yourself, are 18 years of age or older? | 1 | Go to LL10 | Read: Are you that adult?  If yes: Then you are the person I need to speak with.  If no: May I speak with the adult in the household? |  |
| 2-18 | Go to LL11. | If respondent questions why any specific individual was chosen, emphasize that the selection is random and is not limited to any certain age group or sex. |
| LL10. | Are you? | Please read:  1 Male  2 Female | Transition to Section 1 |  |  |
| 3 Unspecified or another gender identity  7 Don’t know/Not sure  9 Refused | Got to LL13 |  |
| LL11. | The person in your household that I need to speak with is the adult with the most recent birthday. Are you the adult with the most recent birthday? |  | If person indicates that they are not the selected respondent, ask for correct respondent and re-ask LL11. (See CATI programming) |  | Household rostering was replaced with most recent birthday as a respondent selection process for household with more than one adult. |
| LL12. | Are you? | Read:  1 Male  2 Female | Go to Transition Section 1. |  |  |
|  |  | 3 Unspecified or another gender identity  7 Don’t know/Not sure  9 Refused | Go to LL13 |  |
| LL13 | What was your sex at birth? Was it male or female? | 1 Male  2 Female  7 Don’t know/Not sure  9 Refused | If ‘7’ or ‘9’ then TERMINATE  “Thank you for your time, your number may be selected for another survey in the future.” | Read if necessary:  “What sex were you assigned at birth on your original birth certificate?” | Question is only asked if respondent does not respond to previous question. |
| Transition to Section 1. |  | 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 do not want to, and you can end the interview at any time. Any information you give me will not be connected to any personal information If you have any questions about the survey, please call (give appropriate state telephone number). |  | Do not read: Introductory text may be reread when selected respondent is reached.  Do not read: The sentence “Any information you give me will not be connected to any personal information” may be replaced by “Any personal information that you provide will not be used to identify you.” If the state coordinator approves the change. |  |

# Appendix B: 2023 BRFSS Questionnaire Cell Phone Introduction

Cell Phone Introduction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Question Number | Question text | Responses  (DO NOT READ UNLESS OTHERWISE NOTED) | SKIP INFO/ CATI Note | Interviewer Note (s) | Comment |
|  |  |  |  |  |  |
| CP01. | Is this a safe time to talk with you? | 1 Yes | Go to CP02 |  |  |
| 2 No | ([set appointment if possible]) TERMINATE] | Thank you very much. We will call you back at a more convenient time. |
| CP02. | Is this [PHONE NUMBER]? | 1 Yes | Go to CP03 |  |  |
| 2 No | TERMINATE |  |
| CP03. | Is this a cell phone? | 1 Yes | Go to CP04 |  |  |
| 2 No | TERMINATE | If "no”: thank you very much, but we are only interviewing persons on cell telephones at this time |
| CP04. | Are you 18 years of age or older? | 1 Yes | Go to CP05. |  |  |
| 2 No | TERMINATE | Read: Thank you very much but we are only interviewing persons aged 18 or older at this time. |
| CP05. | Are you ? | Please read:  1 Male  2 Female | Go to CP07. |  |  |
|  |  | 3 Unspecified or another gender identity  Do not read:  7 Don’t know/Not sure  9 Refused | Go to CP06 |  |
| CP06 | What was your sex at birth? Was it male or female? | 1 Male  2 Female  7 Don’t know/Not sure  9 Refused | If ‘7’ or ‘9’ then terminate.  “Thank you for your time, your number may be selected for another survey in the future.” | Read if necessary:  “What sex were you assigned at birth on your original birth certificate?” | Question is only asked if respondent does not respond to previous question. |
| CP07. | Do you live in a private residence? | 1 Yes | Go to CP09 | Read if necessary: By private residence we mean someplace like a house or apartment  Do not read: Private residence includes any home where the respondent spends at least 30 days including vacation homes, RVs or other locations in which the respondent lives for portions of the year. |  |
| 2 No | Go to CP08 |  |
| CP08. | Do you live in college housing? | 1 Yes | Go to CP09 | Read if necessary: By college housing we mean dormitory, graduate student or visiting faculty housing, or other housing arrangement provided by a college or university. |  |
| 2 No | TERMINATE | Read: Thank you very much, but we are only interviewing persons who live in private residences or college housing at this time. |
| CP09. | Do you currently live in\_\_\_(state)\_\_\_\_? | 1 Yes | Go to CP11 |  |  |
| 2 No | Go to CP10 |  |
| CP10. | In what state do you currently live? | 1 Alabama  2 Alaska  4 Arizona  5 Arkansas  6 California  8 Colorado  9 Connecticut  10 Delaware  11 District of Columbia  12 Florida  13 Georgia  15 Hawaii  16 Idaho  17 Illinois  18 Indiana  19 Iowa  20 Kansas  21 Kentucky  22 Louisiana  23 Maine  24 Maryland  25 Massachusetts  26 Michigan  27 Minnesota  28 Mississippi  29 Missouri  30 Montana  31 Nebraska  32 Nevada  33 New Hampshire  34 New Jersey  35 New Mexico  36 New York  37 North Carolina  38 North Dakota  39 Ohio  40 Oklahoma  41 Oregon  42 Pennsylvania  44 Rhode Island  45 South Carolina  46 South Dakota  47 Tennessee  48 Texas  49 Utah  50 Vermont  51 Virginia  53 Washington  54 West Virginia  55 Wisconsin  56 Wyoming  66 Guam  72 Puerto Rico  78 Virgin Islands |  |  |  |
| 77 Live outside US and participating territories  99 Refused | TERMINATE | Read: Thank you very much, but we are only interviewing persons who live in the US. |
| CP11. | Do you also have a landline telephone in your home that is used to make and receive calls? | 1 Yes  2 No  7 Don’t know/ Not sure  9 Refused |  | Read if necessary: By landline telephone, we mean a regular telephone in your home that is used for making or receiving calls. Please include landline phones used for both business and personal use. |  |
| CP12. | How many members of your household, including yourself, are 18 years of age or older? | \_ \_ Number  77 Don’t know/ Not sure  99 Refused | If CP07 = yes then number of adults is automatically set to 1 |  |  |
| Transition to section 1. |  | 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 do not want to, and you can end the interview at any time. Any information you give me will not be connected to any personal information. If you have any questions about the survey, please call (give appropriate state telephone number). |  |  |  |

# Appendix C: Disposition Table with Callback Rules

|  |  |
| --- | --- |
| Definitions of terms |  |
| Respondent | An adult who is contacted by an interviewer and who may be eligible for interview. |
| Calling attempt | An attempt is an effort to reach a potential respondent by dialing a phone number, even if the dialing does not reach or connect with a working phone line. |
| Complete | An interview in which all questions are complete, including all core and module questions which would be assigned to a selected respondent. |
| Partial compete | An interview which in which the selected respondent has been asked all questions up to those which will be used for weighting. For the 2023 questionnaire this will include through CDEM11 for landline respondents and cell phone respondents. Questions do not have to be answered substantively to be counted as asked (respondents may have provided answers of “do not know” or refused to answer questions). |
| Landline telephone | A telephone that is used within a specific location. Includes traditional household telephones, VOIP and internet phones connected to computers in a household. |
| Cell phone | A mobile device that is not tied to specific location for use and uses cell towers to connect users. |
| Selected respondent | An adult who is eligible for interview. For the cell telephone sample a selected respondent is an adult associated with the phone number who lives in a private residence or college housing within the US or territories covered by the BRFSS. For the landline telephone sample a selected respondent is the person selected for interview during the household enumeration section of the screening questions. |
| Calling occasions | There are three calling occasions:  weekday (before 5:00 pm on a weekday);  weeknight (after 5:00 pm on a weekday), and;  weekend (any time on Saturday or Sunday). |
| Personal Cell phone | A cell phone that is used for personal calls. Cell phones that are used for both personal and business calls may be categorized as personal telephones and are eligible for interview. Telephones that are used exclusively as business phones are not personal telephones and, therefore, are not eligible for interview. |
| Private residence | A non-institutionalized residence in which persons aged 18 and over reside at least 30 days per year that has a separate entrance and cooking capabilities. It may also be college housing, such as a dormitory, fraternity or sorority house, campus sponsored housing or college family housing, or international student or visiting faculty housing. Personal RVs may be private residences. Group homes, military barracks, vacation homes that are not lived in for 30 days, or other temporary housing are not private residences. The determination of private residence is primarily made by the respondents. If the respondents indicate that they live in private residences, interviewers do not question their interpretation of their living situations. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Disposition Code** | **Description** | **Definition** | **Range of Number of Attempts** | **Callback Rules** |
| Final Dispositions-- Completes | | | | |
| 1100 | Complete | Assign if selected respondent completes questionnaire. | 1-8 attempts |  |
| 1200 | Partial complete | Assign if selected respondent completes demographic questions that are used for weighting. For the 2023 questionnaire this will include through question CDEM11 for landline respondents and cell phone respondents. | 1-8 attempts | Selected respondent may be called back to fully complete the interview. Give final disposition on 8th, 6th or subsequent call attempt even if there is only one occurrence of a refusal or termination. |
| Final Dispositions- Eligible Not Interviewed | | | | |
| 2111 | Household level refusal  (landline telephone only) | Assign for landline telephone only if refusal after confirmation of reaching household telephone line used by adults in correct state but before household selection and core BRFSS Q1 in landline telephone. Refusal can be from any member of the household (note: if refusal by selected respondent use code 2112). Automated messages should not count as refusals. | 1-6 attempts | May be assigned after one attempt if hard refusal or special circumstance. Assign after maximum number of attempts and at least one interim disposition of 5111 (household level refusal). |
| 2112 | Selected respondent refusal | Assign if refusal by selected respondent before core BRFSS Q1 is answered by landline telephone. Automated messages should not count as refusals. Assign if cell phone respondent refuses after number determined to be personal phone and respondent confirms living in private residence or college housing. | 1-8 attempts | May be assigned after one attempt if hard refusal or special circumstance. Assign after maximum number of attempts and at least one interim disposition of 5112 (respondent refusal). |
| 2120 | Break off/ termination within questionnaire | Assign if selected respondent has completed portions of Core BRFSS with responses other than “don’t know” or “refused’ and terminates/breaks off prior to the last question used for weighting (in the demographics section). (NOTE: If respondent completes questionnaire through weighting questions, code 1200.) | 1-8 attempts | May be assigned after one attempt if hard refusal or special circumstance. Assign after maximum number of attempts with at least one interim disposition of 5120 (break off/termination). |
| 2210 | Selected respondent never available | Assign if selected respondent is never available during sample period. Selected respondent may not have been contacted or contacted and asked to be called later. Includes repeated unsafe location for interview, respondent away during period of interview, respondent not available for appointment. Includes selected respondents who die during interview period. | 1-8 attempts | Give final disposition when notified or after at least 5 calling occasions with at least 1 weekday, 1 weeknight and 1 weekend attempt. Assign after maximum number of calling attempts with at least one interim disposition of 5100 (appointment), or 5560 (unsafe location). |
| 2320 | Selected respondent physically or mentally unable to complete interview | Assign if selected respondent is unable to complete interview due to physical or mental impairment. This includes temporary conditions such as bereavement, which will last beyond the interview period. | 1-6 attempts | Assign the first time a selected respondent is contacted or is described by someone else as physically or mentally incapable of completing survey or the second time a respondent who is physically or mentally impaired is contacted. |
| 2330 | Language barrier, selected respondent | Selected respondent does not speak English or other language for which interviewers are available. (NOTE: If language barriers prevent completion of respondent selection, assign code 3330 (language barrier, physical or mental impairment). | 1-6 attempts | Assign the first time a selected respondent is contacted or is described by someone else as not speaking English or other language (i.e. Spanish) for which interviewers are available. |
| Final Dispositions- Unknown Eligibility | | | | |
| 3100 | Unknown if eligible | Assign if hang up or call back request without confirming private residence/college housing or age of respondent. | 1-8 attempts | Give final disposition after second hang-up / call back request / termination or when a first time hang up will not be called back because of hard refusal or special circumstances and **when household eligibility is NOT established**. If the first occurrence is on 6th attempt, give final disposition. Assign after maximum number of attempts with at least one interim disposition of 5050 (hang up, unknown if housing unit). |
| 3130 | No answer | Assign if telephone rings normally but no one answers. | 4-6 attempts | Give final disposition after at least 4 calling occasions of no more than 1 attempts with at least 1 weekday, 1 weeknight attempt .  Assign after maximum number of attempts with plurality of interim dispositions of 6130 (no answer). |
| 3140 | Answering device, unknown whether eligible | Assign if a mailbox is full or not yet established.  Assign if answering device leaves open the possibility that the telephone number is not a residence or that the respondent is not eligible due to age. | 4 attempts | Give final disposition after at least 4 calling occasions with at least 1 weekday, 1 weeknight and 1 weekend calls .  Assign after maximum number of attempts with plurality of interim dispositions of 6140 (answering device, unknown if eligible residence or respondent). |
| 3150 | Telecommunication barrier | Assign if call blocking, call ID requirements or other respondent-initiated block device leaves open the possibility of the number reaching an eligible household and/or respondent. Assign if call forwarded to other number and there is some potential for reaching household or actual respondent at later time. | 1-6 attempts | Give final disposition after up to 3 calling occasions of with at least 1 weekday, 1 weeknight, and 1 weekend attempt.  Assign after maximum number of attempts with at least one interim disposition of 6150 (telecommunication barrier) and all others noncontact. |
| 3200 | Household, not known if respondent eligible | Assign for landline telephone sample if private residence confirmed without selecting respondent. (NOTE: If contact is made and household eligibility is unknown, use code 3100). Contact with vacation home may apply. Contact with household where residents are away for interview period may apply.  Assign for cell phone if contact is made with household resident without determining whether cell phone number and respondent are eligible. | 1-8 attempts | Give final disposition after second hang-up/ termination or when a first time hang up will not be called back because of hard refusal or special circumstances and **when respondent eligibility is NOT established**. If the first occurrence is on 8th attempt, give final disposition.  Assign after maximum number of attempts with at least one interim disposition of 5050 (hang up, unknown if respondent eligible). |
| 3322 | Physical or mental impairment  (household level) | Assign if physical or mental impairment prevents determination of private residence or prevents determination of eligibility of household or resident. This is a household level assignment. If selected respondent is physically or mentally impaired, assign 2320 after first attempt. | 1-6 attempts | Assign after maximum number of attempts with at least one interim disposition of 5320 (physical or mental impairment). |
| 3330 | Language barrier, (household level) | Assign if language barrier prevents determination of private residence or prevents determination of eligibility of household or resident. This is a household level assignment. If selected respondent has language barrier assign 2330 when informed. Information may come from respondent or other household member. | 1-6 attempts | Assign after maximum number of attempts with at least one interim disposition of 5330 (household language barrier). Do not assign if there are interviewers within the calling center who could complete the interview in language spoken by household (i.e. Spanish). |
| 3700 | On never call list | Assign only if supervisor can determine that respondent/ household is on never call list. Interviewer should not assign based on respondent information. (NOTE: If respondent insists that he/she is on never call list assign household level refusal (2111) or respondent refusal (2112). | No attempt | Assign with confirmation by supervisor. Interviewer should not assign based on respondent information. |
| Final Dispositions- Not Eligible | | | | |
| 4100 | Out of sample | Assign if out- of- state for landline telephone or out of country for cell phone. Assign if indication that number reaches vacation home or household members are not living in home during interview period. (NOTE: If contact is made with respondent who indicates that they have been reached at their vacation home where they live for at least 30 consecutive days per year, interview can continue). Assign if no adults available on landline number (teen phone).  Assign if landline telephone sample number connects to cell phone or if sample indicates that a number in the landline telephone sample has been ported to a cell phone. | 1-8 attempts | Assigned as soon as sample ineligibility determined. This should take priority over other final dispositions. |
| 4200 | Fax/data/modem | Assign if call reaches fax or data line without human contact. | 1-6 attempts | May be assigned to landline unlisted sample with secondary precall status of fax. May be assigned after one attempt. If states choose to use 6 attempts, give final disposition after recommendation for 3 calling occasions with 1 weekday, 1 weeknight and 1 weekend calls. |
| 4300 | Nonworking number/ disconnected | Assign if tritone. Assign if operator message of nonworking number. States may choose to assign for temporary nonworking number message on first attempt or after repeated temporary nonworking number messages. Assign if “number changed” message. Assign if correctly dialed number rings to incorrect number. Assign if respondent reports that connection has been made to wrong number.  A number that does not accept incoming calls (such as a hospital line only used for outgoing calls) | 1-6 attempts.  Do not call more than 6 attempts. | May be precall assigned (for both landline and cell phone). May be assigned after one attempt. If states use 6 attempts, give final disposition after recommendation for 3 calling occasions with 1 weekday, 1 weeknight, and 1 weekend calls. Assign after maximum number of attempts with at least one interim disposition of 6400 (technological barrier), 6300 (possible nonworking) or 6550 (busy) and all others noncontact. |
| 4400 | Technological Barrier | Assign if repeated busy, fast busy or circuit busy messages. Assign if repeated ambiguous operator messages. Assign if repeated poor audio quality. Assign if number repeatedly does not connect.  Assign if number reaches a retrieval or connectivity system (such as Skype or OnStar).  Assign if cell phone respondent is outside calling area. Assign if respondent is unable to receive calls. DO NOT assign if answering device (which permits leaving messages) is reached. | 1-6 attempts.  Do not call more than 6 attempts. | May be assigned to landline unlisted sample with secondary precall status of busy. May be assigned after one attempt. If states use 6 attempts, give final disposition after recommendation for 3 calling occasions with 1 weekday, 1 weeknight, and 1 weekend calls for landline telephones. Assign after maximum number of attempts with interim dispositions of 6200 (fax/data/modem), 6400 (technological barrier), 6300 (possible nonworking) and/or 6550 (busy) and all others noncontact. |
| 4430 | Call forwarding / pager | Assign if message indicates number has been forwarded. Assign if number reaches a pager. Assign if connection produces series of beeps. NOTE: Do not select respondents from landline household or location that is different from the original number. Do not enumerate the number of adults at location which is different from original number.  However, landline respondent may be interviewed if number has been temporarily forwarded and the respondent is still living at location of original number. Cell phone respondents who have forwarded their numbers may also be interviewed. | 1-6 attempts.  Do not call more than 6 attempts. | May be assigned after one attempt. May give final disposition after respondent or automated message informs that the number has been forwarded after multiple attempts. May give final disposition after series of beeps indicates a pager has been reached. If states use 6 attempts, give final disposition after recommendation for 3 calling occasions with 1 weekday, 1 weeknight, and 1 weekend calls for landline telephone. |
| 4460 | Landline telephone  (cell phone only) | Assign if cell phone sample number connects to a landline telephone. | 1-8 attempts | Can be precall assigned. Given final disposition when informed. This disposition should take priority over other possible final dispositions for the cell phone sample. |
| 4500 | Non-residence | Assign if business, group home, government, or other organization. For cell phone, assign if telephone is used exclusively for business purposes. | 1-6 attempts | Given final disposition when informed. This disposition should take priority over other possible final dispositions. This disposition should be assigned to numbers with a precall status of 5. |
| 4900 | Miscellaneous,  non-eligible | Assign for null numbers, special data circumstances only. May be assigned if data are believed by state coordinator or data collection supervisor to be falsified or in error. Notify CDC when this code is used. | 1-6 attempts | May be assigned after one attempt. Assign only with supervisor approval. |
| Interim Dispositions with Contact | | | | |
| 5050 | Unknown whether eligible | Respondent hangs up or refuses before establishing eligibility. The state location question is not needed to establish eligibility for cell phone respondents. |  | Give interim disposition when this occurs. Call back after an interval of at least one day until maximum call attempts are reached. |
| 5100 | Appointment | Respondent asks for an appointment or asked to be called at some other time. Assign if child answers the phone and does not get an adult to come to the phone. Appointments may be formal or informal statements that the respondent is temporarily not able to complete the interview from household members or selected respondent.  States may ask for permission to text respondents and remind them of appts. |  | Schedule a callback for appropriate time. |
| 5111 | Household level refusal  (landline telephone only) | Assign for landline telephone only if refusal after confirmation of reaching household phone line used by adults in correct state but before core BRFSS Q1 in landline telephone. Refusal can be from any member of the household (note: if refusal by selected respondent, use code 2112). Automated messages should not count as refusals. |  | Give interim disposition when this situation occurs. Call back after an interval of at least one day. May assign final disposition of 2111 if hard refusal. |
| 5112 | Selected Respondent refusal: hang up or termination | Assign if refusal by selected respondent before Core BRFSS Q1 in landline telephone. Automated messages should not count as refusals. Assign if cell phone respondent refuses after number determined to be personal (nonbusiness) phone and respondent confirms living in private residence or college housing. |  | Give interim disposition. Schedule callback for as long as practical for up to two weeks after initial refusal. |
| 5120 | Break off / termination in questionnaire | Assign after respondent completes through Core BRFSS Q1 with an answer other than “don’t know/not sure” or “refused” but breaks off prior to end of demographic section. |  | Give interim disposition when this situation occurs. Call back after an interval of at least one day. |
| 5121 | Call dropped | Assign for cell phone respondent if call is dropped. |  | Give interim disposition when this situation occurs. Call back may occur immediately or rescheduled after an interval of one hour. |
| 5320 | Physical or mental impairment | A household respondent or selected respondent is temporarily unable to be interviewed due to physical or mental impairment. NOTE: If selected respondent has permanent physical or mental impairment that renders him/her unable to complete the interview, assign final disposition of 2320 (physical or mental impairment) as soon as informed. |  | Give interim disposition when this occurs. Call back after an interval of at least one day until maximum call attempts are reached. |
| 5330 | Language barrier | Assign if a respondent who is not the selected respondent does not speak English or other language for which an interviewer is available.  (NOTE: If selected respondent does not speak English or language for which there is an interviewer available, give final disposition of 2330 as soon as informed.) |  | Give interim disposition when this occurs. Call back after an interval of at least one day until maximum call attempts are reached. |
| 5560 | Unsafe location/ activity for interview | Assign if respondent indicates he/she unable to continue due to safety concerns. May be assigned to numbers in cell phone or landline phone sample. |  | Give interim disposition when this occurs. Schedule a callback time or call back after an interval of at least one hour until maximum call attempts are reached. |
| 5700 | Supervisor attention | Assign if special circumstances require supervisor attention |  | Assign only for special circumstances. |
| No Contact Interim Dispositions | | | | |
| 6130 | No answer | Assign if number rings normally without answer. |  | Give interim disposition when this occurs. Call back after an interval of at least one hour until maximum call attempts are reached. May be assigned as 3130 after 4 attempts |
| 6140 | Answering device, unknown whether eligible | Assign if a mailbox is full or not yet established.  Assign if answering device whether or not the message leaves open the possibility that the telephone number is not a residence or that the respondent is not eligible due to age. |  | Give interim disposition when this occurs. Call back after an interval of at least one hour until maximum call attempts are reached. |
| 6141 | Call is immediately directed to answering machine without ringing | This is a similar code to 6150, but included to ascertain whether cell phones are blocking calls. Should be assigned if call is immediately (within a single ring) transferred to answering machine/voice mail. |  | Give interim disposition when this occurs. Call back after an interval of at least one hour until maximum call attempts are reached.  States may opt to final disposition of 3140 after 2 attempts with interim dispositions of 6141. |
| 6150 | Telecommunication barrier | Assign if call blocking, call ID requirements or other respondent initiated block device leaves open the possibility of the number reaching an eligible household and/or respondent. Assign if call forwarded to other number and there is some potential for reaching household or actual respondent at later time. |  | Give interim disposition when this occurs. Call back after an interval of at least one hour. May be assigned after 4 attempts. until maximum call attempts are reached. |
| 6200 | Fax/data/modem | Assign if number connects to data or fax line without human contact. |  | States may assign final disposition of 4200 at any attempt, including the first attempt. If states choose to call up to 6 attempts, give interim disposition and schedule callback after an interval of at least one day. |
| 6300 | Possible nonworking | Assign if message indicates number might be nonworking. Assign if recorded message indicates number is temporarily out of service. Assign if message indicates telephone number cannot be reached at this time. Assign if recording indicates that the number is for outgoing calls only (such as a hospital line for outgoing calls only). |  | States may assign final disposition of 4300 at any attempt including the first attempt. If states choose to call up to 6 attempts, give interim disposition and schedule callback after an interval of at least one hour. |
| 6400 | Technological barrier | Assign if fast busy or circuit busy messages. Assign if ambiguous operator messages.  Assign if number reaches a retrieval or connectivity system (such as Skype or Onstar).  Assign if poor audio quality. Assign if number does not connect. Assign if cell phone respondent is outside calling area. Assign if respondent is unable to receive calls. DO NOT assign if answering device (which permits leaving messages) is reached. |  | States may assign final disposition of 4400 at any attempt. If states choose to call up to 6 attempts, give interim disposition and schedule callback after an interval of at least one day. |
| 6550 | Busy | Assign if number produces normal busy (not fast busy) signal. |  | States may assign final disposition of 4400 at any attempt. If states choose to call up to 6 attempts, give interim disposition and schedule callback after an interval of at least one hour. |
| 6900 | Null attempt | Assign only with supervisor approval for special data circumstances. |  | Assign only with supervisor approval for special data circumstances. |

1. Vicente P., Marques C. & Reis E. (2017). Effects of call patterns on the likelihood of contact and of interview in mobile CATI surveys. Retrieved from https://surveyinsights.org/?p=9044

   DOI:10.13094/SMIF-2017-00003; Reimer B, Roth V, Montgomery R (2012) Optimizing Call Patterns for Landline and Cell Phone Surveys. Am Stat Assoc. 2012 ; 2012: 4648–4660. [↑](#footnote-ref-2)