

Behavioral Risk Factor Surveillance System

2012 Combined Landline Telephone and Cellular Telephone Survey Multiple-Version Questionnaire Use of Data

July 15, 2013



Background

The Behavioral Risk Factor Surveillance System (BRFSS) questionnaire had 27 optional modules available for states to include as standardized questions in their 2012 landline telephone and cellular telephone surveys. The limited time available for communicating with a respondent over the phone, however, did not allow a state to include all of the optional modules. In an effort to help states make the most of the time available with a respondent, the BRFSS Branch provided limited support for the survey data collection of multiple-version (up to three) questionnaires in 2012.

The multiple-version questionnaire plan is conducted for a statewide representative subset of the state's sample. The subset of telephone numbers used for data collection still follows the state sample design and is administered as the state's BRFSS sample, but the optional modules and state-added questions presented to the selected respondent may be different. In order for the multiple-version questionnaire data to be available for use as a separate data set, there are three additional requirements that states must follow:

- a) In all versions of the questionnaire, the core instrument must be asked without any changes;
- b) Whether the optional modules are to be included on all survey versions or exclusively on a single version, once the module strategy has been selected, it must be performed during all 12 months of data collection; and
- c) There must be an effective sample size of at least 2,500 complete interviews for a questionnaire version to have the appropriate weighting variables included with the data set.

Examples

How a State May Choose to Use Single- or Multiple-Version Questionnaires (10,000 complete interviews, using nine optional modules)

Single-Version Questionnaire

A state may choose to collect the same nine optional modules across all 10,000 interviews.

Split the modules across subsets of the sample

If a state chooses to split the modules across subsets of the 10,000 interviews, the number of questions presented to each respondent can be reduced, while theoretically maintaining a representative sample for the state—provided that the state takes into account the requirements for collecting multiple-version questionnaires. The state may choose up to three versions and must maintain an effective sample size of 2,500 for each version. There are different ways to conduct the survey with this strategy:

The state could pick optional modules a, b, and c and deliver them to all sample subsets as “common” modules;
or

The state could have two versions of the survey: **version 1** could use modules d, e, and f; and **version 2** could

use modules g, h, and I. In this example if the sample were split evenly, there would be approximately 5,000 interviews for each of the multiple-version questionnaires.

Appropriate Variables and Weights

The questionnaire version variable (QSTVER) has been used to distinguish between the multiple-version questionnaire data. The landline telephone survey data has a value ranging from 10 to 13, and the cellular telephone survey data has a value ranging from 20 to 23. A state with QSTVER equal to 10 and 20 collected only one version of the BRFSS landline telephone survey and cellular telephone survey in 2012. The analysis of the combined landline telephone survey and cellular telephone survey optional module data for this state should use the LLCP2012 data set with the corresponding final weights (_LLCPWT, _CLCPWT) as described in the document Overview_2012.rtf.

A state with QSTVER equal to 11 and 21 collected two or more versions of the survey. The analysis of the optional module for this state requires more attention to which weighting variable is used to generate estimates. The data for a state collecting a version 1 questionnaire (QSTVER = 11 and 21) is located in LLCP12V1. This data set contains the data records (QSTVER = 11 and 21) and has been weighted to the state population totals with a subset of the whole BRFSS sample for the state. The analysis of the optional module data for version 1 for this state should use the LLCP12V1 data set with the corresponding final weights (_LCPWTV1, _CLCWTV1). From the example above with a state collecting 10,000 interviews and assigning optional modules d, e, f to version 1, generating estimates for the optional modules d, e, f would use the weight variable _LCPWTV1. This weight would be applicable only to records from the state with QSTVER in (11, 21).

A state with QSTVER equal to 12 and 22 collected two or more versions of the landline survey. The data for a state collecting a landline version 2 questionnaire (QSTVER = 12 and 22) is located in LLCP12V2. This data set contains the data records (QSTVER = 12 and 22) and has been weighted to the state population totals with a subset of the whole BRFSS sample for the state. The analysis of the optional module data for version 2 for this state should use the LLCP12V2 data set with the corresponding final weights (_LCPWTV2, _CLCWTV2). From the example above with a state collecting 10,000 interviews and assigning optional modules g, h, i to version 2, generating estimates for the optional modules g, h, i would use the weight variable _LCPWTV2. This weight would be applicable only to records from the state with QSTVER in (12, 22).

A state with QSTVER equal to 13 and 23 collected three versions of the landline survey. The data for a state collecting a landline version 3 questionnaire (QSTVER = 13 and 23) is located in LLCP12V3. This data set contains the data records (QSTVER = 13 and 23) and has been weighted to the state population totals with a subset of the whole BRFSS sample for the state. The analysis of the optional module data for version 3 for this state should use the LLCP12V3 data set with the corresponding final weights (_LCPWTV3, _CLCWTV3).

The data sets LLCP12V1, LLCP12V2, and LLCP12V3 contain the data from the states that conducted multiple-version questionnaires and used optional modules in 2012. The list below shows the optional modules included in the data sets by state. There are four subheadings to identify how a module was used by the state. "Common" indicates the module was used on all versions; "Survey 1" indicates modules used only on version 1; "Survey 2" indicates modules used only on version 2; "Survey 3" indicates modules used only on version 3. The absence of a survey number indicates there were no optional modules exclusive to the missing number version of the survey.

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2012 Multi Questionnaire states and modules:

Modules by State	
California	Common: Random Child Selection, Childhood Asthma Prevalence Survey 1: Fruits and Vegetables, Visual Impairment and Access to Eye Care, Sugar Sweetened Beverages and Menu Labeling Survey 2: Visual Impairment and Access to Eye Care
Iowa	Common: Mental Illness & Stigma, Pre-Diabetes, Adverse Childhood Experience Survey 1: Excess Sun Exposure, Sugar Sweetened Beverages and Menu Labeling
Kansas	Common: Random Child Selection, Childhood Asthma Prevalence Survey 1: Diabetes, Pre-Diabetes, Chronic Obstructive Pulmonary Disease (COPD), Sugar Sweetened Beverages and Menu Labeling Survey 2: Mental Illness & Stigma, Inadequate Sleep, Childhood Immunization, Veteran's Health
Maine	Survey 1: Diabetes, Pre-Diabetes, Adult Human Papilloma Virus (HPV) Survey 2: Random Child Selection, Childhood Asthma Prevalence, Childhood Immunization
Maryland	Common: Fruits and Vegetables, Random Child Selection, Childhood Asthma Prevalence, Childhood Immunization Survey 1: Prostate Cancer Screening Decision Making Module Survey 2: Sugar Sweetened Beverages and Menu Labeling
Michigan	Common: Social Context, Random Child Selection, Childhood Asthma Prevalence, Chronic Obstructive Pulmonary Disease (COPD) Survey 1: Diabetes, Pre-Diabetes
Nebraska	Common: Random Child Selection, Childhood Asthma Prevalence Survey 1: Social Context, Mental Illness & Stigma, Veteran's Health Survey 2: Diabetes, Reactions to Race, Sugar Sweetened Beverages and Menu Labeling
New Jersey	Common: Diabetes, Random Child Selection, Childhood Asthma Prevalence, Pre-Diabetes Survey 1: Social Context, Veteran's Health Survey 2: Sugar Sweetened Beverages and Menu Labeling Survey 3: Mental Illness & Stigma, Cancer Survivorship, Excess Sun Exposure
Ohio	Common: Diabetes, Random Child Selection, Childhood Asthma Prevalence, Pre-Diabetes Survey 1: Fruits and Vegetables, Visual Impairment and Access to Eye Care, Healthy Days (Symptoms)
Oklahoma	Common: Random Child Selection, Childhood Asthma Prevalence Survey 1: Diabetes, Social Context, Pre-Diabetes, Sugar Sweetened Beverages and Menu Labeling Survey 2: Cancer Survivorship, Adverse Childhood Experience, Excess Sun Exposure, Chronic Obstructive Pulmonary Disease (COPD)
Oregon	Common: Diabetes, Random Child Selection, Childhood Asthma Prevalence, Mental Illness & Stigma, Inadequate Sleep, Chronic Obstructive Pulmonary Disease (COPD) Survey 1: Pre-Diabetes
Texas	Common: Random Child Selection, Childhood Asthma Prevalence, Childhood Immunization Survey 1: Diabetes, Pre-Diabetes Survey 2: Tetanus Diphtheria (Adults), Adult Human Papilloma Virus (HPV), Shingles (Zostavax or ZOS)
Utah	Common: Random Child Selection, Childhood Asthma Prevalence Survey 2: Diabetes Survey 3: Diabetes, Pre-Diabetes

States by Module	
Module	
Adult Human Papilloma Virus (HPV)	Survey 1: Maine Survey 2: Texas
Adverse Childhood Experience	Common: Iowa Survey 2: Oklahoma

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Cancer Survivorship	Survey 2: Oklahoma Survey 3: New Jersey
Childhood Asthma Prevalence	Common: California, Kansas, Maryland, Michigan, Nebraska, New Jersey, Ohio, Oklahoma, Oregon, Texas, Utah Survey 2: Maine
Childhood Immunization	Common: Maryland, Texas Survey 2: Kansas, Maine
Chronic Obstructive Pulmonary Disease (COPD)	Common: Michigan, Oregon Survey 1: Kansas Survey 2: Oklahoma
Diabetes	Common: New Jersey, Ohio, Oregon Survey 1: Kansas, Maine, Michigan, Oklahoma, Texas Survey 2: Nebraska, Utah Survey 3: Utah
Excess Sun Exposure	Survey 1: Iowa Survey 2: Oklahoma Survey 3: New Jersey
Fruits and Vegetables	Common: Maryland Survey 1: California, Ohio
Healthy Days (Symptoms)	Survey 1: Ohio
Inadequate Sleep	Common: Oregon Survey 2: Kansas
Mental Illness & Stigma	Common: Iowa, Oregon Survey 1: Nebraska Survey 2: Kansas Survey 3: New Jersey
Pre-Diabetes	Common: Iowa, New Jersey, Ohio Survey 1: Kansas, Maine, Michigan, Oklahoma, Oregon, Texas Survey 3: Utah
Prostate Cancer Screening Decision Making Module	Survey 1: Maryland
Random Child Selection	Common: California, Kansas, Maryland, Michigan, Nebraska, New Jersey, Ohio, Oklahoma, Oregon, Texas, Utah Survey 2: Maine
Reactions to Race	Survey 2: Nebraska
Shingles (Zostavax or ZOS)	Survey 2: Texas
Social Context	Common: Michigan Survey 1: Nebraska, New Jersey, Oklahoma
Sugar Sweetened Beverages and Menu Labeling	Survey 1: California, Iowa, Kansas, Oklahoma Survey 2: Maryland, Nebraska, New Jersey
Tetanus Diphtheria (Adults)	Survey 2: Texas
Veteran's Health	Survey 1: Nebraska, New Jersey Survey 2: Kansas
Visual Impairment and Access to Eye Care	Survey 1: California, Ohio Survey 2: California