

## Use of BRFSS Dual Questionnaire Data

BSB provides limited support for a dual questionnaire data collection format. The dual questionnaire design consists of two questionnaires asked each month of the survey year. The core instrument must be asked without any changes in both versions of the questionnaire. The optional modules and state-added questions can be asked on either one or both versions, but must be asked throughout all twelve months of the survey. BSB provides two additional weights for use with variables resulting from questions asked only on one of the two versions of the questionnaire.

To reduce confusion about which weight to use with which variable, two additional data sets are available for 2006. These data sets contain the data from the states which conducted dual questionnaires and used optional modules in 2006. The list below shows the optional modules included in the data sets by state. There are three sub-headings to identify how a module was used by the state. "Common" indicates the module was used on both versions, "Survey A" indicates modules used only on version 1, "Survey B" indicates modules used only on version 2.

### 2006 Dual Questionnaire states and modules:

<b>Connecticut</b>	<b>Survey A:</b> Anxiety and Depression, Child Influenza Vaccine Supplement, Childhood Asthma Prevalence, Diabetes, Family Planning, General Preparedness, Indoor Air Quality, Random Child Selection, Visual Impairment and Access to Eye Care
<b>Kansas</b>	<b>Common:</b> Childhood Asthma Prevalence, Random Child Selection <b>Survey A:</b> Diabetes, Folic Acid <b>Survey B:</b> Anxiety and Depression
<b>Maryland</b>	<b>Common:</b> Childhood Asthma Prevalence, Random Child Selection <b>Survey A:</b> Anxiety and Depression, Diabetes <b>Survey B:</b> Secondhand Smoke Policy
<b>Nebraska</b>	<b>Common:</b> Childhood Asthma Prevalence, Random Child Selection <b>Survey A:</b> Anxiety and Depression, Diabetes, Visual Impairment and Access to Eye Care <b>Survey B:</b> Folic Acid, Intimate Partner Violence, Secondhand Smoke Policy, Sexual Violence
<b>Oregon</b>	<b>Common:</b> Anxiety and Depression, Childhood Asthma Prevalence, Diabetes, Family Planning, Random Child Selection <b>Survey A:</b> Child Influenza Vaccine Supplement
<b>Washington</b>	<b>Common:</b> Diabetes <b>Survey A:</b> Anxiety and Depression

The analysis of the dual questionnaire data requires some careful consideration of which records to use with the appropriate weight. For the core questions and optional modules asked on the "Common" questionnaire the \_FINALWT variable should be used to produce estimates. For optional modules used only on "Survey A" the \_FINALQ1 variable should be used to produce estimates for records with variable QSTVER = 1. For optional modules used only on "Survey B" the \_FINALQ2 variable should be used to produce estimates for records with variable QSTVER = 2.

The guidelines below are provided by BSB to assist states in making decisions regarding the implementation of a dual questionnaire.

Minimum sample size:

Careful consideration should be given to the analysis anticipated from each version of the questionnaire when designing the sample. The split of a sample to collect two versions of the questionnaire reduces the number of completes available for producing estimates for questions used only on one version. The BRFSS Working Group recommended in 2004 that states using dual questionnaire have a sample size of at least 2,500 for each version of the questionnaire. This suggests a total sample greater than or equal to 5,000 complete/partial complete interviews for any state desiring to use two questionnaires. The sample size was arbitrary, but at the same time reasonable. The contributing factors to the minimum sample size were to facilitate the ability to weight the data and provide estimates for subsets of the general population.

Number of regions for weighting the data ( \_REGION):

Be aware that geographically stratifying for weighting the data by more than one \_REGION will reduce the weighting categories such that more collapsing across the weighting cells will be required. The implication of more collapsing is the weights provided for version A or B may not be as well distributed across the post-stratification cells if the number of completes available in a region is too small.

Use of Optional Modules:

BSB requests an accurate list of modules to be used on each version or both. This list will determine the modules expected by the editing programs and reports. If any module questions are altered, deleted, or not asked of each eligible respondent the entire year, the revised module must be treated as state-added questions and should not be included in the list of optional modules. Regardless of asking optional modules on one or both versions of questionnaire, module data will be stored in the same locations. Modules should be asked throughout all twelve months of the survey.

Sample:

Data exported from CATI need to have a field called QSTVER at a given position (will be determined) to identify the questionnaire version. This can be created by CATI programming or in the sample file prior to importing into CATI.

The first approach, highly recommended, requires some preparation before loading the sample, but simplifies the data collection. Before importing the sample, replicates can be randomly assigned to each of the questionnaires. The questionnaire version value (1 for Questionnaire A and 2 for questionnaire B) can be added to a field at the end of the sample file. For example, given an even number of replicates in a geographic stratum half the replicates can be given a value of 1 and the other half a 2 in this field. A variable (QSTVER) has been assigned in the data submission layout to hold this identifier. The import layout of the sample file will need to include the QSTVER field. The CATI uses the information from this field to determine which questionnaire to present. This method would also allow calculation of response rates for each questionnaire version. This approach requires an even number of replicates for each stratum.

The second approach is to use the CATI programming to control the assignment of the questionnaire. This allows different versions of the questionnaire to be assigned within the same replicate. The QSTVER can also be assigned within the CATI programming. For the first version (A) set the QSTVER to a "1" and the second version (B) should have QSTVER set to "2." If the randomization within the CATI programming approach is used, you may want to consider some method to control the number of completes/partial completes for each version of the questionnaire each month. With this approach, sample management may be an area of concern, particularly if the sample is geographically stratified. Calculation of a Response Rate for each version is not possible.

Weights:

BSB will produce three sets of weights for the dual questionnaire data set. The \_FINALWT to be used with questions asked of all respondents. In addition a second weight to be used only with variables specific to version A of the questionnaire and a third weight to be used only with variables specific to version B of the questionnaire. These weights will be included in the state data file and have been provided in the past with the aggregate file produced for programs within CDC.