



## Delaware Behavioral Risk Factor Survey (BRFS)

### **Policy on Data Suppression, Presentation & Publication Standards, and Small Area Estimates**

#### **Producing Valid Estimates**

In response to requests for valid prevalence estimates for low prevalence conditions or for smaller demographic groups using Behavioral Risk Factor Survey data, the Delaware BRFS has established this policy for data suppression and presentation of prevalence estimates. This policy is in accord with nationally recognized publications designed to protect the integrity and validity of the estimates produced.

For estimates to be considered valid they must meet:

- The numerator must be equal to or greater than 50 respondents.
- A confidence interval must be smaller than 20 percentage points.
  - It is important to note, SAS procedure “proc surveyfreq” calculates Wald confidence levels by default. An option in the program should be used to calculate more conservative confidence limits due to complex survey design.

Additionally:

- If the sample size is greater than but approaching 50 respondents OR the confidence interval is less than but approaching 20 percentage points, the Coefficient of Variation (CV) should be calculated as an additional tool to determine suppression. If the CV is .10 or larger, the estimate should be suppressed even if it meets the above preliminary criteria.

#### **Small-Area Estimates Using Aggregated Data**

Iterative Proportional Fitting (or Raking) weights use demographic and geographic variables in the process. The weights provided by CDC are based on county-level population data provided by the U.S. Census Bureau and/or Nielsen Segmentation and Market Solutions (formerly Claritas). The Delaware BRFS has an adequate sample in each of the state’s three counties to regularly produce county-level, as well as state-level, prevalence estimates.

However, weights are based on county-level data and therefore, individual smaller geographies within counties cannot be analyzed without re-weighting the dataset. Demographic characteristics for individual geographies within a county may be different from the total

county demographic makeup. Sampling procedures do not adjust for individual variations in each geography.

Under certain circumstances—which include similarity of populations and geographic proximity—three or more ZIP Codes may be aggregated to provide a smaller-area estimate, such as for the city of Wilmington or western Sussex County. ***However, the dataset must be re-weighted using CDC’s raking program for the newly defined geographic regions.*** Reweighting using the raking program requires a minimum sample size in the aggregated ZIP Code area of at least 500 respondents.

It is important to note, there is no single ZIP Code in Delaware with enough sample to produce valid estimates, so the BRFSS database is normally released with ZIP Codes stripped.