Every 3 to 4 years, the Santa Clara County Public Health Department (SCCPHD) conducts a countywide health survey called the Behavioral Risk Factor Survey (BRFS). The survey is based on the Center for Disease Control and Prevention’s (CDC) Behavioral Risk Factor Surveillance System (BRFSS) survey. Occasional improvements in methods, with accompanying effects on results, have long been a necessary part of all public health surveillance systems, including population health surveys like the SCCPHD BRFS. These changes are necessary to keep up with changing trends in the population, like changes in telephone use, and to take advantage of improved statistical procedures. These changes ensure that the BRFS continues to accurately reflect the health of the Santa Clara County population and to reduce possible bias. Beginning in 2013-14, SCCPHD changed the methodology for its BRFS in two major ways. First, we conducted interviews with adults who live in households that use only cell phones, in addition to those with landline telephones. Second, the responses were weighted using a new methodology called “raking”. These two changes are similar to changes that the CDC recently made to its BRFSS. These changes will likely result in the SCCPHD BRFS being more representative of the county population as a whole. More detail is provided on these changes below.

How is this BRFS survey different from previous years of the BRFS?

Previously, interviews for the SCCPHD BRFS were conducted only with adults in households with landline telephones. In addition, responses were weighted using a simpler methodology called post-stratification. In the 2013-14 BRFS, cell phone numbers and a more accurate “raking” methodology of weighting were used.

Why were cell phone users included in this survey?

The proportion of cell phone users and cell phone-only households (households with no landline telephones) has been increasing and will continue to increase. Studies show that adults who live in cell phone-only households differ demographically from adults living in households with landlines (younger in age, certain racial/ethnic groups, lower education and income). Including cell phone interviews increases the proportion of interviews conducted with people in these groups and allows the survey to more accurately represent the county population.

Why were changes made to the weighting procedure?

Due to data collection procedures and response patterns, the characteristics of the BRFS respondents (the survey sample) may differ from those of the county population. Weighting is used to statistically adjust the survey sample to make it better match the characteristics of the county population. In 2013-14, SCCPHD adopted a more advanced weighting method called “raking”, which permits taking into account additional demographic characteristics as well as the phone source used for the interview (landline vs. cell). This enables more accurate matching of the sample to the demographic characteristics of the county population. The raking for the 2013-14 BRFS used 5 dimensions: (1) age by education, (2) marital status by race, (3) gender by education, (4) home ownership by race, and (5) telephone status.
Can the 2013-14 BRFS data be compared with the data from previous BRFS surveys?

SCCPHD recommends that these methodological changes be carefully considered when making any comparisons between the 2013-14 BRFS data and data from previous BRFS survey cycles. Differences between 2013-14 and earlier surveys may not represent changes in health behaviors and health conditions in the population, but instead merely reflect improved methods of measuring these factors. Furthermore, it is recommended that you clearly state and note all methodological changes when you are presenting any BRFS trend data.

What is the effect of the changes in methods on prevalence estimates in Santa Clara County?

The CDC has conducted comprehensive analysis of how these same changes affected estimates in the BRFSS. They found that these changes resulted in slightly higher estimates for some health behaviors and conditions (e.g., cigarette smoking and asthma). In contrast, changes to obesity, stroke, and coronary heart disease were found to be minimal. Similar effects on survey estimates might be applicable to the SCCPHD BRFS. The changes in estimates resulting from the new methods are generally small. When presenting trend data that includes the 2013-14 BRFS, a new trend line should be started with the 2013-14 data.