

CHANGES IN BRFSS

The BRFSS is the world's largest, on-going telephone health survey system. Over 350,000 surveys are conducted annually.



AZ Fast Fact

4,700 adult Arizonans are surveyed monthly on lifestyle risk factors as part of the BRFSS.

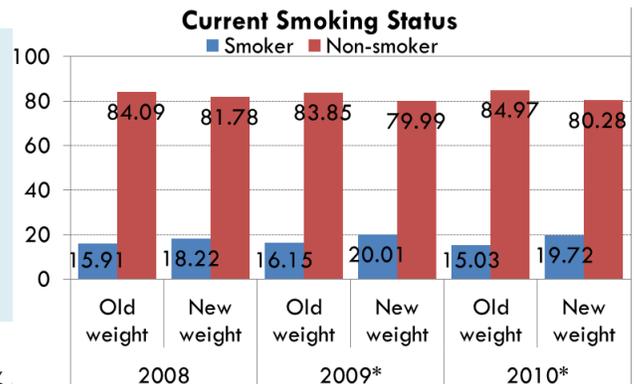
Introduction

The Behavioral Risk Factor Surveillance System (BRFSS) is a statewide health survey developed by the Centers for Disease Control and Prevention (CDC) and conducted by individual states and U.S. territories. The Bureau of Tobacco and Chronic Disease utilizes this tool to measure state prevalence for tobacco use amongst Arizona's adult population. Two key changes were made for the 2011 BRFSS to both enhance and improve this survey.

These two methodological changes were the inclusion of cell phones in the survey and a change in the weighting method. These were done to obtain a more accurate assessment and obtain a more representative sample of the total population.

How does this impact Arizona's tobacco prevalence?

To the right you will see tobacco prevalence rates from 2008 to 2010 that showcase both old weighting practices and the new. This demonstrates what our old prevalence rates would look like had the new weighting standards been in place in 2008.



Why the change now?

The use of cell phones has increased in recent years and as much as 30% of households have only cell phones, as opposed to a landline/cell phone combination or solely landline connection. Historically, BRFSS had only administered surveys to households who had landline telephones. Landline telephones are on the decline so it is essential to change survey collection methodologies to adjust with the trend.

Statistical weighting of data is an important factor of any survey. In addition to administering the survey to cell phone users, the CDC has also changed the way it weights data from post-stratification to iterative proportional fitting (also known as raking). Raking allows for more variables to be taken into consideration when weighting, which gives a more meaningful weight to the data and reduces the potential for bias. For example, if half of our population is female but for some reason our survey respondents were 75% male, and the majority of all respondents were over the age of 50, the prevalence of gestational diabetes would be skewed. However, with raking we can assign weights to the people we reach. In this case, the raking could include gender, age, and even status of health insurance. By weighting the responses differently, the data will come closer to revealing the true percentage. BRFSS raking does this with multiple categories, including telephone source, race and ethnicity, regions within states, education level, marital status, age, gender, and renter/owner status. This method gives us a more representative estimate of health risks and behaviors.

In addition to numbers alone, the majority of "cell phone only" households are comprised of young adults who do not own their own homes, are generally unmarried and are predominantly self-identified as Hispanic. By including the use of cell phones in the BRFSS, the data now allows us to have a more representative sample from populations that have a higher risk for certain diseases, as well as a more thorough assessment of the population as a whole. While it is clear that these changes have improved the information available, comparisons with prior surveys are not easy. The inclusion of cell phones dramatically changes the population that is reached in the survey. The change in weighting makes comparisons difficult as well, due to the fact that the type of phone (landline or cell phone) is part of the new weight. As this wasn't part of the weight in years past, they cannot be easily compared. However, the ability to make a more accurate assessment of our state's health is something we can appreciate as we move forward with a clearer understanding of our community.

Further information and Resources

Centers for Disease Control and Prevention

cdc.gov/brfss

An online source for credible health information, including nationwide lifestyle risk factors, how surveys are conducted and used and state and territorial agencies who conduct the survey.

Arizona Department of Health Services

Arizona Behavioral Risk Factor Survey
azdhs.gov/plan/brfs

Arizona's resource page for the survey including how state data was compiled, and Arizona specific results of the survey.



Bureau of Tobacco and Chronic Disease
www.tobaccofreearizona.com