

The West Virginia Division of Tobacco Prevention is dedicated to decreasing tobacco use among all West Virginians. An important responsibility of the division is to administer, sponsor, and/or support statewide surveys that allow us to track tobacco use behaviors among West Virginia youth and adults. These surveys enable us to estimate reliable prevalence rates for tobacco use by gender, age, educational level, and household income. Unfortunately, we are unable to provide reliable estimates for tobacco use by different racial, ethnic, and other special populations in West Virginia due to the makeup of our state's population (WV minority, ethnic, and other special populations are less than 4 percent of state population).

The reliability of prevalence rates is largely dependent on the number of people surveyed. When sample sizes are small, the resulting rates become less reliable. In some cases, very expensive over sampling of a subpopulation is possible; however, according to the U.S. Centers for Disease Control and Prevention's Office on Smoking and Health, this is feasible only when the subpopulation constitutes at least 15% to 20% of the total population. The minority population in West Virginia accounts for approximately 3% of the state's total population, ruling out this sampling technique.

The reliability problem resulting from small sample sizes is illustrated by looking at data from the Youth Risk Behavior Survey (YRBS). In 2003, the YRBS estimated that 27.9% of white high school students in the state had smoked cigarettes within 30 days prior to the survey. The 95% confidence interval (95% C.I.) around this percentage was calculated to be 23.0-32.8, meaning that we are 95% confident that the true prevalence of white students reporting smoking is between 23.0% and 32.8%. That same survey indicated that 34.0% of African American high school students reported smoking within the past 30 days. The confidence interval around this percentage is much larger (95% C.I.: 20.2-47.8), because of the smaller number of students surveyed. In this case, we are 95% confident that the true rate of African American students who smoke is between 20.2% and 47.8%, a **much** wider range, which makes the rate more unreliable. When comparing the estimates of 27.9% and 34.0%, it would initially appear that African American students are more likely to report smoking than white students. However, because the confidence intervals overlap, the rate among African American students may actually be lower than that among white students. We can only conclude that there is no significant difference between the two groups of students.

Our tobacco prevention and cessation interventions are designed to help prevent and stop tobacco use among all West Virginians, regardless of race or ethnicity. We believe that applying our focus, energy, and funds to increasing and strengthening these interventions is the best way to achieve a healthy West Virginia for ALL residents.



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