

Trend Analysis Report

This page intentionally left blank.

Trend Analysis Report

Purpose:

This Trend Analysis Report describes whether behaviors have increased, decreased, or stayed the same over time. The report provides this analysis for the total population, by sex, and by race/ethnicity categories.

Inclusion Criteria:

A Trend Analysis Report is generated for sites that have weighted YRBS data in 2011 and in at least one other survey year since 1991. Sites that do not have weighted data in 2011 do not receive a Trend Analysis Report.

Only 2011 standard questions and supplemental variables calculated from those questions are included in the report. Site added questions are not included.

For each standard question, data from all weighted survey years are included in the analysis of that question. The one exception to this is when a standard question was not asked by the site in one of the weighted survey years. If a site did not ask a standard question in one of their weighted surveys, only data from the most recent year back to that point will be included in the analysis.

For example, suppose a site has weighted data from its 2005, 2007, 2009, and 2011 surveys. This site will get a Trend Analysis Report. It will include all standard 2011 questions for all of the weighted years (2005, 2007, 2009, and 2011). But if a particular standard question was not asked in 2007 for instance, only data for 2009 and 2011 will be used for that question in the Trend Analysis Report. Data from 2005 for that question will not be used because of the interruption in the use of this question in 2007.

Analyses:

Logistic regression analysis is used to test for change over all the years of available data. The regression models control for changes in distributions by sex, race/ethnicity, and grade in the population and simultaneously assess linear and quadratic time effects. Logistic regression analysis uses all available years of data. It does not consider the oldest and the most recent data points only. Logistic regression analysis provides an appropriate test of change over long periods of time.

T-test analysis is used to test for change between just 2009 and 2011.

Trend Analysis Report Column Headings:

Question – Every 2011 standard YRBS question asked and all supplemental variables calculated from those questions are included in this column. The text reflects the response or responses of interest for the particular question. Please refer to the *2011 Data User's Guide* in the Survey

Documentation section of this binder for more details on variable types and supplemental variables.

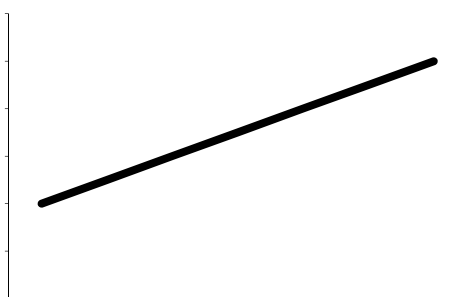
- **Prevalence** – These columns provide the prevalence estimate for each variable for each year included in the report. A blank for a given question or year signifies that weighted data were not available for that year, that the question was not asked, or that less than 100 students responded.
- **Linear Change and Quadratic Change** – These columns indicate whether there was a significant linear and/or quadratic change in prevalence over time. One type of change is not better or more important than the other. See below for an explanation of how to interpret the linear and quadratic results of the Trend Analysis Report.
- **2009-2011 Change** – This column indicates whether there was significant change just between 2009 and 2011. “Yes” indicates that the two prevalence estimates are different. “No” indicates that the two prevalences are not different.

Note: Special care should be used in interpreting trend results for behaviors that have very low prevalence. Trend analyses can be sensitive to the small number of students in the numerator of very low prevalence variables. See [Interpretation of YRBS Trend Data](#) on the YRBS website for more information on interpreting trend data.

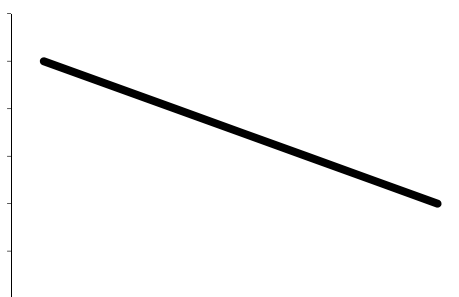
Interpretation of Results:

Linear change = YES; Quadratic change = NO

This means the behavior either increased (A) or decreased (B) significantly over time. A graph of the trend line will be relatively straight.



A

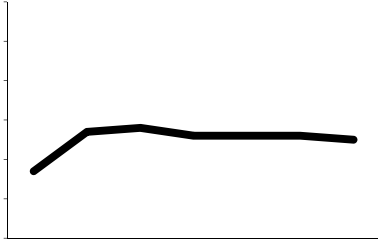


B

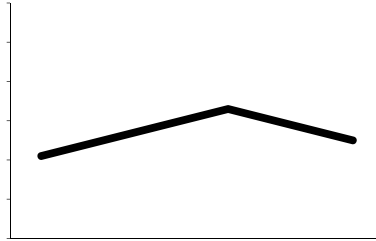
Linear change = NO; Quadratic change = YES

This means the behavior increased or decreased slightly over time, but not enough to be a significant linear change, and then leveled off (C); the behavior increased or decreased and then

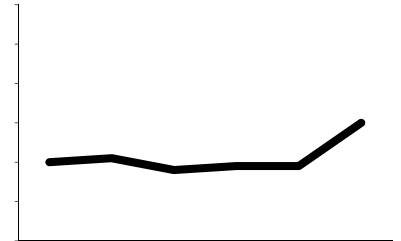
went in the opposite direction (D); or the behavior started out level and then increased or decreased over time, but not enough to be a significant linear change (E). A graph of the trend line will have a bend in it. At least three years of data are needed to test for a quadratic change.



C



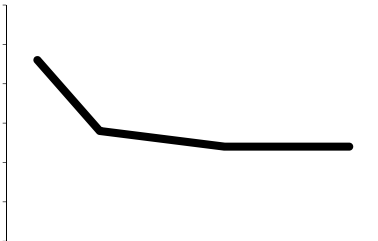
D



E

Linear change = YES; Quadratic change = YES

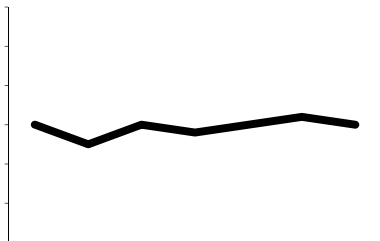
This means that while there was an overall significant increase or decrease in the behavior over time, the behavior has either leveled off or begun to move in the opposite direction (F). A graph of the trend line will have a bend in it.



F

Linear change = NO; Quadratic change = NO

This means that there was no significant change in the behavior over time. A graph of the trend line will be relatively flat (G).



G