Trend Analysis Report

Purpose:

This Trend Analysis Report helps sites with multiple years of weighted YRBS high school or middle school data determine if behaviors have increased, decreased, or stayed the same over time. The report performs that analysis for the total population and by sex.

Criteria:

A Trend Analysis Report is generated if your site has weighted YRBS data in 2005 and in at least one other survey year since 1991.

Only standard questions from the 2005 YRBS questionnaire and variables calculated from those questions are eligible for inclusion in the report. Site added questions are not included. For a standard question to be included in the report, your site must have asked the question in 2005. If your site asked the question in 2005 but not in all previous years, only 2005 data and data from survey years immediately preceding 2005 are included for that question. For example, if a site has weighted data from 2005, 2003, 2001, and 1999 but asked a particular question only in 2005, 2003, and 1999, only the data from 2005 and 2003 (for that question) are included in the analysis. The "break" in asking the question in 2001 causes data from years previous to the break to be excluded from the analysis. If the question had not been asked in 2003, the question would not be included in the report at all because there would only be one year of data for the question.

To construct the Trend Analysis Report, we used logistic regression analysis to test for change over time. When we test for change over time, we controlled for changes in distributions by sex, race/ethnicity, and grade. Logistic regression analysis uses all available years of data. It does not consider just the oldest and the most recent data points. Logistic regression analysis provides an accurate test of change over long periods of time. Both linear and quadratic changes were tested for simultaneously in the model.

Trend Analysis Report Column Headings:

Question – Every 2005 standard YRBS question asked by your site and all supplemental variables calculated from those questions is included in this column.   The text reflects the response or responses of interest for the particular question. Please refer to the *2005 YRBS Data Processing and Editing Procedures* in the Data Analysis Resources 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.[*] You may use the data in these columns to graph the trend lines of interest to you. 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 there were less than 100 respondents.

- **Changes Over Time** – These columns indicate whether there was a significant linear and/or quadratic change over time.

  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 respondents in the numerator of very low prevalence behaviors.
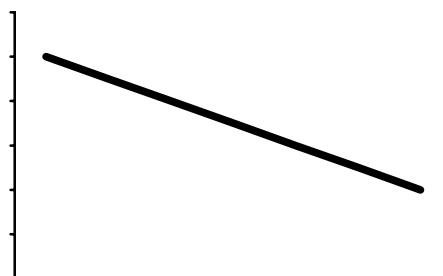
Interpretation of Results:

Linear change = YES; Quadratic change = NO

This means the behavior either increased (A) or decreased (B) significantly over time. If you graph the trend line it will be relatively straight.
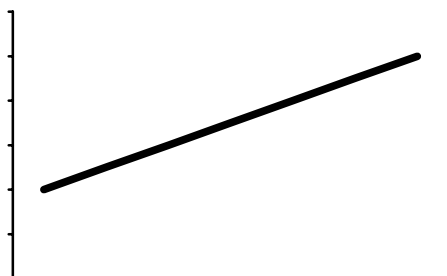
|	
A	**B**

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[*] Note: Overweight and at risk for becoming overweight prevalence estimates for 1999 differ slightly from previously published results because different BMI cut points were used in 1999 than in subsequent years. To make these prevalence estimates comparable, the 1999 prevalence estimates were recalculated using the updated BMI cut points.
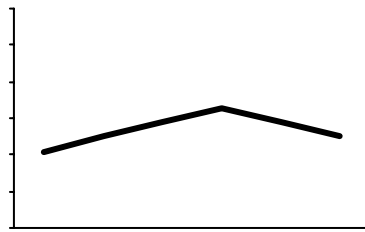
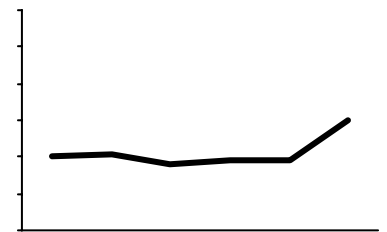### Linear change = NO; Quadratic change = YES

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). If you graph the trend line, it will have a bend in it. You need at least three years of data to detect a quadratic change.
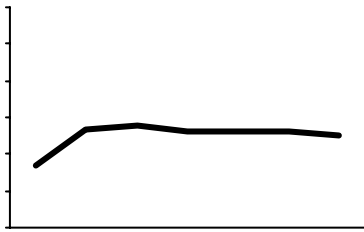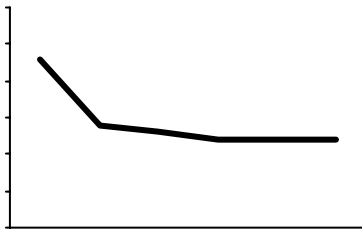
C   **D**   **E**
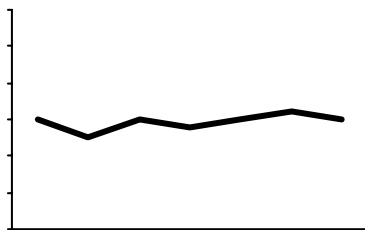
Linear change = YES; Quadratic change = YES

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). If you graph the trend line, it 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. If you graph the trend line it will be relatively flat (G).

G