

# 2014 SCHOOL HEALTH PROFILES REPORT

## Trend Analysis Report Documentation

**Purpose** The Trend Analysis Report describes whether school health policies and practices measured by Profiles have increased, decreased, or stayed the same over time.

**Example**

MOCK MAINE												
2014 School Health Profiles Report Trend Analysis Report - Principal Survey												
Prevalence												
	1998	2000	2002	2004	2006	2008	2010	2012	2014	Linear Change <sup>1</sup>	Quadratic Change <sup>1</sup>	2012-2014 Change <sup>2</sup>
<b>School Health Coordination</b>												
Percentage of schools that ever used the School Health Index or other self-assessment tool to assess school policies, activities, and programs in the following areas:												
Physical activity					37.0	55.4	56.6	56.6		Increased, 2008-2014	Not available	No change
Nutrition					37.0	54.1	53.1	53.1		Increased, 2008-2014	Not available	No change
Tobacco-use prevention					37.7	53.1	54.3	54.3		Increased, 2008-2014	Not available	No change
Asthma					22.0	40.0	38.7	38.7		Increased, 2008-2014	Not available	No change
Injury and violence prevention						45.4	47.5	47.5		No linear change	Not available	No change
Percentage of schools with a School Improvement Plan that includes health-related objectives on the following topics:												
Health education							23.5	20.2	20.2	No linear change	Not available	No change
Health services							22.1	17.1	17.1	Decreased, 2010-2014	Not available	No change
Mental health and social services							20.4	15.8	15.8	Decreased, 2010-2014	Not available	No change

<sup>1</sup>Based on trend analyses using a logistic regression model, p < 0.05.  
<sup>2</sup>Based on t-test analysis, p < 0.05.

Page 1 of 51

**Inclusion Criteria** A Trend Analysis Report is generated for sites that have weighted Profiles data for at least one survey (principal or lead health education teacher) in 2014 and in at least one other survey year since 1998. Sites that do not have weighted data in 2014 do not receive a Trend Analysis Report. In addition, sites that included/excluded a type of school (e.g. private, charter, or alternative schools) from their 2014 sampling frame when that type of school had previously been excluded/included do not receive a Trend Analysis Report.

For each variable, data from all weighted survey years are included in the analysis of that variable.

**Content**

The report contains two parts: variables from the principal survey and variables from the lead health education teacher survey. The title at the top of each page indicates whether the data are from the principal survey or the lead health education teacher survey. Each page contains the following columns:

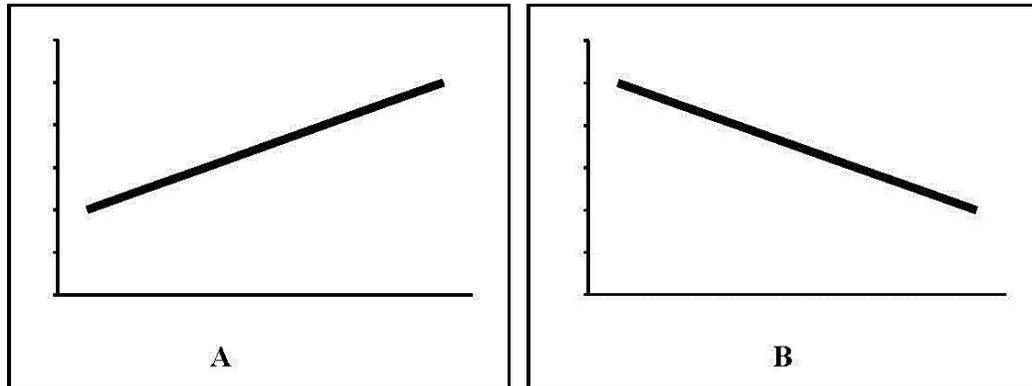
<b>Column</b>	<b>Content</b>
Variable	<p>Lists every 2014 Profiles question that has been included in at least one other Profiles survey year. The text reflects the response of interest for the particular variable.</p> <p>The wording used for the SLIM and Performance Measures has been shorted to save space. Please refer to the <b>SLIMs and Performance Measures Crosswalk</b> and the <b>Chronic Performance Measures Crosswalk</b> for the complete wording of each SLIM and Performance Measure and more details about how each SLIM and Performance Measure was calculated.</p>
Prevalence	<p>Provides prevalence estimates for each variable for each year included in the report. A blank space for a given variable or survey year means either that the site did not obtain weighted data in that survey year, or that the question(s) corresponding to that variable were not included on the questionnaire in that survey year.</p>
Linear Change	<p>Indicates whether there was a statistically significant linear change in the prevalence over time and the years during which the linear change occurred. That is, did the prevalence increase, decrease, or stay the same? At least two years of data are required to test for a linear change.</p>
Quadratic Change	<p>Indicates whether there was a statistically significant quadratic change in the prevalence over time and the years when the components of the quadratic change occurred. At least 6 years of data are needed to test for a quadratic change. “Not available” in this column indicates there are fewer than 6 years of data.</p>
Change from 2012-2014	<p>Indicates whether there was a statistically significant increase or decrease in the prevalence between 2012 and 2014. That is, did the prevalence increase, decrease, or stay the same?</p>

**How to Interpret the Trend Analysis Report**

Linear and quadratic changes occur independently. It is possible to have one, both, or neither. One is not better or more important than the other. There are four possible combinations of linear and quadratic changes.

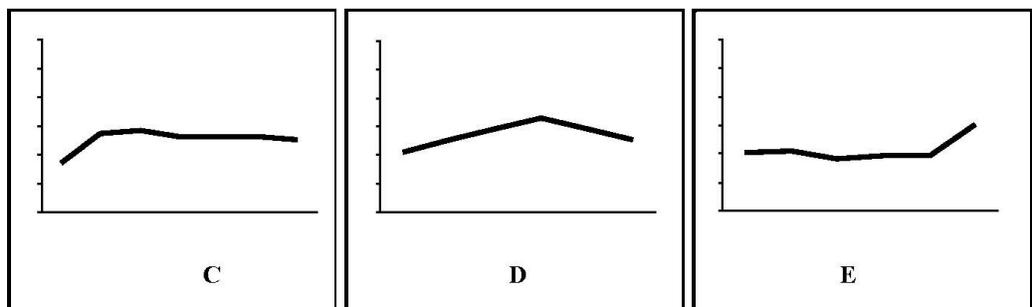
**Linear change = YES; Quadratic change = NO**

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



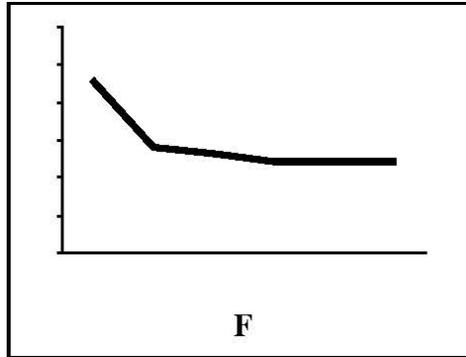
**Linear change = NO; Quadratic change = YES**

This means the prevalence increased or decreased slightly over time, but not enough to be a significant linear change, and then leveled off (C); the prevalence increased or decreased and then went in the opposite direction (D); or the prevalence 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. This report refers to the year when the bend occurs as the “inflection point.”



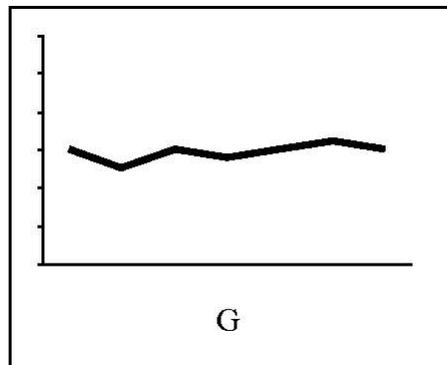
**Linear change = YES; Quadratic change = YES**

This means that while there was an overall significant increase or decrease in the prevalence over time, the prevalence 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.



**Linear change = NO; Quadratic change = NO**

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



## Notes

The analyses in the Trend Analysis Report are run using SUDAAN and Joinpoint statistical software.

SUDAAN logistic regression is used to test for linear and quadratic changes. Logistic regression uses all available years of data. It does not simply consider only the oldest and most recent data points.

When SUDAAN detects a quadratic trend, Joinpoint is used to determine the inflection point, or the year the “bend” occurs. Then SUDAAN is used again to test for linear trends on either side of the inflection point. The result for each of these tests is reported in the Trend Analysis Report.

SUDAAN t-test analysis is used to test for changes between 2012 and 2014.

Special care should be used in interpreting trend analysis for variables with very low prevalence. Trend analyses can be sensitive to the small number of schools in the numerator of very low prevalence variables.