

## Trend Analysis Report

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### Purpose:

This Trend Analysis Report helps sites with multiple years of weighted YRBS high school data determine if behaviors have increased, decreased, or stayed the same over time.

### Criteria:

A Trend Analysis Report is generated for sites that have weighted YRBS high school data in 2003 and in at least one other survey year since 1991.

Only standard questions from the 2003 High School 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 the site must have asked the question in 2003. If the site asked the question in 2003 but not in all previous years, only 2003 data and data from survey years immediately preceding 2003 are included for that question. For example, if a site has weighted data from 2003, 2001, 1999, and 1997 but asked a particular question only in 2003, 2001, and 1997, only the data from 2003 and 2001 (for that question) are included in the analysis. The “break” in asking the question in 1999 causes data from years previous to the break to be excluded from the analysis.

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 2003 standard and calculated YRBS question asked by a site is included in this column. The text reflects the response or responses of interest for the particular question.
- **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. You may use the data in these columns to graph the trend lines of interest to you.
- **Changes Over Time** – These columns indicate whether there was a significant linear and/or quadratic change over time.

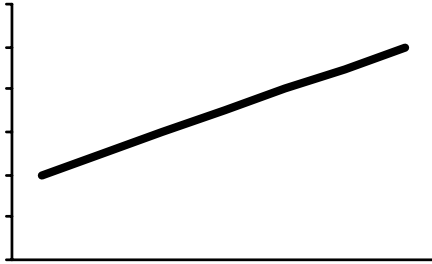
## Trend Analysis Report

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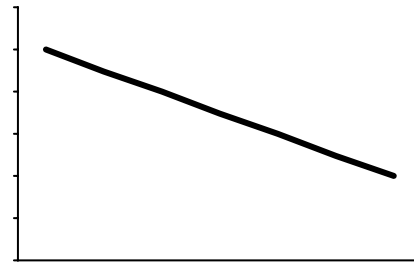
Results may be interpreted as follows:

**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.



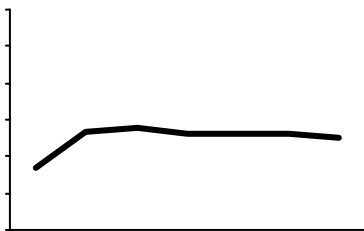
A



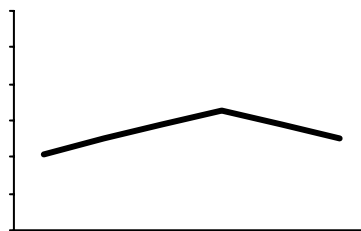
B

**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



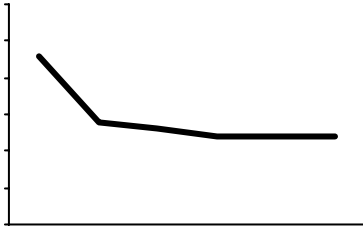
E

## Trend Analysis Report

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

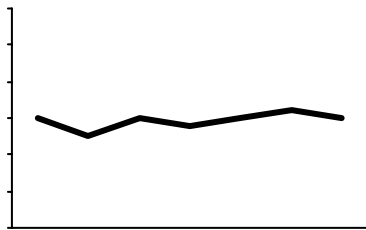
This means that while there was an overall significant increase or decrease in the behavior over time, the behavior has either leveled off or begun to move in the opposite direction (F). If you graph the trend line, it will have a bend in it.



**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**

## 2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

### Maine High School Trend Analysis Report

Question	Prevalence Survey Year							Changes Over Time	
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Injury and Violence</b>									
Of students who rode a bicycle during the past 12 months, the percentage who never or rarely wore a bicycle helmet			84.4	84.7		71.6	71.5	Yes	No
Percentage of students who never or rarely wear a seat belt when riding in a car driven by someone else			21.3	22.3		14.9	15.2	Yes	No
Percentage of students who, during the past 30 days, rode one or more times in a car or other vehicle driven by someone who had been drinking alcohol			34.2	34.0		27.4	24.2	Yes	No
Percentage of students who, during the past 30 days, drove a car or other vehicle one or more times when they had been drinking alcohol			13.9	15.8		10.8	10.2	Yes	No
Percentage of students who carried a weapon such as a gun, knife, or club on one or more of the past 30 days			19.5	22.0		15.4	16.5	Yes	No
Percentage of students who carried a gun on one or more of the past 30 days			6.7	6.8		4.4	4.9	No	No
Percentage of students who carried a weapon such as a gun, knife, or club on school property on one or more of the past 30 days			9.9	11.3		5.2	6.6	Yes	No
Percentage of students who did not go to school on one or more of the past 30 days because they felt unsafe at school or on their way to or from school			3.3	4.4		9.4	5.3	Yes	Yes
Percentage of students who had been threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the past 12 months			6.6	7.5		8.7	8.5	Yes	No
Percentage of students who were in a physical fight one or more times during the past 12 months			33.0	32.5		30.9	26.5	Yes	No
Percentage of students who were injured in a physical fight one or more times during the past 12 months and had to be treated by a doctor or nurse			2.5	3.7		3.9	3.6	No	No
Percentage of students who were in a physical fight on school property one or more times during the past 12 months			14.2	14.1		11.3	9.1	Yes	No
Percentage of students who were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months						12.0	11.8	No	

2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

Maine High School  
Trend Analysis Report

Question	Prevalence Survey Year						Changes Over Time		
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Injury and Violence</b>									
Percentage of students who, during the past 12 months, ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities						26.7	24.7	No	
Percentage of students who seriously considered attempting suicide during the past 12 months			25.1	24.5		18.6	17.1	Yes	No
Percentage of students who made a plan about how they would attempt suicide during the past 12 months			18.5	20.8		16.5	15.0	Yes	No
Percentage of students who actually attempted suicide one or more times during the past 12 months			8.0	8.5		9.2	9.0	No	No
Percentage of students whose attempted suicide during the past 12 months resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse			2.7	2.8		4.6	2.9	No	Yes

2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

Maine High School  
Trend Analysis Report

Question	Prevalence Survey Year							Changes Over Time	
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Tobacco Use</b>									
Percentage of students who smoked a whole cigarette for the first time before age 13				30.2		22.5	19.5	Yes	No
Percentage of students who smoked cigarettes on one or more of the past 30 days			37.8	39.2		24.8	20.5	Yes	No
Percentage of students who smoked cigarettes on 20 or more of the past 30 days			20.4	22.1		14.0	10.1	Yes	No
Percentage of students who smoked more than 10 cigarettes per day on the days that they smoked during the past 30 days				9.4		5.5	3.2	Yes	No
Percentage of students who smoked two or more cigarettes per day on the days they smoked during the past 30 days				29.4		18.2	14.4	Yes	No
Percentage of students who smoked cigarettes on school property on one or more of the past 30 days			19.2	18.2		8.7	6.7	Yes	No
Percentage of students who used chewing tobacco, snuff, or dip on one or more of the past 30 days			9.0	7.9		6.2	4.3	Yes	No
Percentage of students who used chewing tobacco, snuff, or dip on school property on one or more of the past 30 days			4.2	3.3		3.0	2.2	No	No
Percentage of students who smoked cigars, cigarillos, or little cigars on one or more of the past 30 days						12.0	11.1	No	
Percentage of students less than 18 years of age who were current smokers and purchased cigarettes at a store or gas station during the past 30 days						8.8	9.4	No	
Percentage of students who used any tobacco during the past 30 days						29.2	23.7	Yes	

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Maine High School  
Trend Analysis Report

Question	Prevalence Survey Year						Changes Over Time		
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Alcohol and Other Drug Use</b>									
Percentage of students who had their first drink of alcohol other than a few sips before age 13				28.5		21.7	21.0	Yes	No
Percentage of students who had at least one drink of alcohol on one or more of the past 30 days			52.3	51.3		47.8	42.2	Yes	No
Percentage of students who had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days			30.9	33.8		31.5	27.3	No	Yes
Percentage of students who had at least one drink of alcohol on school property on one or more of the past 30 days			4.9	6.2		5.0	3.7	No	Yes
Percentage of students who tried marijuana for the first time before age 13				12.3		12.0	9.6	No	No
Percentage of students who used marijuana one or more times during the past 30 days			28.4	30.4		27.2	26.4	No	No
Percentage of students who used marijuana on school property one or more times during the past 30 days			8.3	9.5		6.9	6.3	No	No
Percentage of students who used any form of cocaine, including powder, crack, or freebase one or more times during their life				8.5		9.7	8.3	No	No
Percentage of students who used any form of cocaine, including powder, crack, or freebase one or more times during the past 30 days				3.2		4.1	3.4	No	No
Percentage of students who sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life			19.8	19.3		12.6	13.1	Yes	No
Percentage of students who sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during the past 30 days						4.3	4.1	No	
Percentage of students who used heroin one or more times during their life						3.9	3.3	No	

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Maine High School  
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Question	Prevalence Survey Year						Changes Over Time		
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Alcohol and Other Drug Use</b>									
Percentage of students who used methamphetamines one or more times during their life						8.4	8.3	No	
Percentage of students who took steroid pills or shots without a doctor's prescription one or more times during their life			3.9	4.9		5.5	4.8	No	Yes
Percentage of students who used a needle to inject any illegal drug into their body one or more times during their life			1.5	2.8		2.5	2.8	No	No
Percentage of students who were offered, sold, or given an illegal drug on school property by someone during the past 12 months			36.0	40.7		32.4	32.6	Yes	No

2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

Maine High School  
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Question	Prevalence Survey Year						Changes Over Time		
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Sexual Behaviors</b>									
Percentage of students who ever had sexual intercourse			49.0	51.6		46.3	42.8	Yes	No
Percentage of students who had sexual intercourse for the first time before age 13			4.3	6.8		4.4	4.7	No	No
Percentage of students who had sexual intercourse with four or more people during their life			12.8	12.5		10.1	10.6	No	No
Percentage of students who had sexual intercourse with one or more people during the past three months			35.0	36.2		34.6	31.2	No	No
Percentage of students who have ever had sexual intercourse but not had sexual intercourse during the past three months			28.7	29.8		24.7	27.2	No	No
Of students who had sexual intercourse during the past three months, the percentage who drank alcohol or used drugs before last sexual intercourse			24.1	24.2		24.6	25.8	No	No
Of students who had sexual intercourse during the past three months, the percentage who used a condom during last sexual intercourse			46.9	50.7		52.2	57.8	Yes	No
Of students who had sexual intercourse during the past three months, the percentage who used birth control pills during last sexual intercourse			36.9	29.8		36.1	36.7	No	No
Percentage of students who have never had sex, have not had sex in the last three months, or used a condom the last time they had sex			81.7	82.5		83.7	87.0	Yes	No
Percentage of students who had ever been taught about AIDS or HIV infection in school			92.5	93.0		93.5	88.2	No	Yes

## 2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

### Maine High School Trend Analysis Report

Question	Prevalence Survey Year							Changes Over Time	
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Weight Management and Dietary Behaviors</b>									
Percentage of students who are at risk for becoming overweight						14.5	14.6	No	
Percentage of students who are overweight						10.4	12.8	Yes	
Percentage of students who described themselves as slightly or very overweight			31.1	30.1		32.8	34.0	No	No
Percentage of students who were trying to lose weight			42.5	46.3		43.8	46.4	No	No
Percentage of students who exercised to lose weight or to keep from gaining weight during the past 30 days			52.7	54.3		60.4	60.9	Yes	No
Percentage of students who ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight during the past 30 days						39.9	45.1	Yes	
Percentage of students who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days						12.7	14.4	No	
Percentage of students who took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days						5.9	8.5	Yes	
Percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days			5.1	6.8		6.2	5.8	No	No
Percentage of students who drank 100% fruit juices one or more times during the past seven days						85.7	83.0	No	
Percentage of students who ate fruit one or more times during the past seven days						86.8	86.3	No	
Percentage of students who ate green salad one or more times during the past seven days						75.3	70.1	Yes	
Percentage of students who ate potatoes one or more times during the past seven days						77.4	77.9	No	

2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

Maine High School  
Trend Analysis Report

Question	Prevalence Survey Year							Changes Over Time	
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Weight Management and Dietary Behaviors</b>									
Percentage of students who ate carrots one or more times during the past seven days						62.1	58.5	No	
Percentage of students who ate other vegetables one or more times during the past seven days						89.6	87.6	No	
Percentage of students who at five or more servings of fruit and vegetables per day during the past seven days						25.0	22.6	No	
Percentage of students who drank three or more glasses of milk per day during the past seven days						22.7	21.9	No	

2003 YOUTH RISK BEHAVIOR SURVEY RESULTS

Maine High School  
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Question	Prevalence Survey Year							Changes Over Time	
	1991	1993	1995	1997	1999	2001	2003	Linear Change	Quadratic Change
<b>Physical Activity</b>									
Percentage of students who exercised or participated in physical activities for at least 20 minutes that made them sweat and breathe hard on three or more of the past seven days			63.1	61.9		65.9	60.6	No	No
Percentage of students who participated in physical activities that did not make them sweat or breathe hard for at least 30 minutes on five or more of the past seven days						29.1	24.6	Yes	
Percentage of students who did exercises to strengthen or tone their muscles on three or more of the past seven days			44.5	50.7		47.5	49.4	No	No
Percentage of students who watched three or more hours of TV per day on an average school day						24.4	26.3	No	
Percentage of students who attended physical education (PE) class one or more days during an average school week			52.2	47.3		41.9	40.5	Yes	No
Percentage of students who attended physical education (PE) class daily			10.3	7.3		4.8	8.2	No	No
Of students enrolled in physical education (PE) class, the percentage who exercised or played sports more than 20 minutes during an average physical education class			78.6	82.0		90.1	88.2	Yes	No
Percentage of students who played on one or more sports teams during the past 12 months						59.6	56.7	No	
Percentage of students who did not participate in at least 20 minutes of vigorous physical activity on three or more of the past seven days and did not do at least 30 minutes of moderate physical activity on five or more of the past seven days						29.5	36.4	Yes	
Percentage of students who participated in no vigorous or moderate physical activity during the past seven days						6.4	9.8	Yes	