

Macon County Schools, Youth Risk Behavior Survey – Spring 2014

Report Preparation

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Executive Summary and Major Findings

The Youth Risk Behavior Survey (YRBS) is a national school-based survey developed by the Centers for Disease Control and Prevention (CDC) in 1990. At the national level, the survey is administered to adolescent youth approximately every two years to monitor health risk behaviors that contribute to deaths, disability, and social problems among young Americans. For Macon County Schools, the YRBS is seen as a tool for needs assessment and curriculum planning. The Macon County School System administered the YRBS in middle and high schools most recently in April, 2014.

The Macon Surveys

The middle school survey contained 96 questions and the high school survey contained 99 questions. YRBS questions address six general health risk areas: Alcohol and Drug Use, Injury & Violence (including suicide), Tobacco Use, Nutrition, Physical Activity, and Sexual Risk Behaviors. The high school survey solicited information about students' height and weight, which was used to calculate body mass indices. Appendices A and B contain copies of the surveys administered.

Macon Demographics

A total of 1,795 students responded to the surveys in this report, 761 middle school students and 1,034 high school students. Of the 761 middle school students who completed the YRBS, 371 (48.8%) were female and 390 (51.2%) were male. Of the 1,034 high school students who completed the YRBS, 500 (48%) were female and 521 (50%) were male. All Macon County middle and high school students were given the opportunity to complete the YRBS. Participation, however, was voluntary.

Analyses

In this report, 2014 frequencies were calculated for the both middle school and high school YRBS. The 2014 middle school results were compared with the 2011 results. Further, long-term trends from 2002-2014 middle school data were analyzed. Macon results from the middle school YRBS were also compared to the YRBS results from an independent sample of North Carolina students. Middle school race contingencies were analyzed. Body Mass Index and Perceptions of Weight percentages were calculated for high school students. Frequency tables for high school YRBSs are reported in Appendix E.

The Most Noteworthy Results

For the middle school YRBS this executive summary reports the significant findings for long-term trends, for 2014-2011 comparisons, for Macon-North Carolina comparisons, and for gender contingencies.

Long-Term Trends for the Middle School YRBS, 2002-2014

Decreasing Trends of At-Risk Behavior

These trends indicate good news with double-digit decreases in the percentages of at-risk behavior:

Violence-Related Behaviors

- Since 2002, the percentage of students who rarely or wear a seat belt when riding in a car has decreased at the rate of 10%.
- Since 2005, the percentage of students who were threatened or injured by a weapon on school property has decreased at the rate of 10.2%.
- Since 2002, the percentage of students who did not go to school because they felt unsafe has decreased at the rate of 11.1%.
- Since 2002, the percentage of students who have had property stolen or damaged on school property has decreased at the rate of 10.2%.
- Since 2002, the percentage of students who have been physically hurt by a boyfriend/girlfriend during the year has decreased at the rate of 11.6%
- Since 2002, the percentage of students who were forced to have sexual intercourse has decreased at the rate of 15%.

Tobacco Use

- Since 2009, the percentage of students who smoked a whole cigarette for the first time before age 11 has decreased at the rate of 19.5%.
- Since 2005, the percentage of students who smoked a cigarette on one or more days has decreased at the rate of 17.7%.
- Since 2005, the percentage of students who tried to quit smoking has decreased at the rate of 14.1%.¹

Alcohol and Drug Use

- Since 2002, the percentage of students who used marijuana during the past 30 days decreased at the rate of 12.6%.
- Since 2002, the percentage of students who have used any form of cocaine, including powder, crack, or free base, has decreased at the rate of 14.1%.

¹ Fewer students may be trying to quit smoking because, as demonstrated in the previous two bullet points, fewer overall students are smokers.

- Since 2002, the percentage of student who have used LSD, PCP, mushrooms, ecstasy, or other hallucinogens has decreased at the rate of 16.7%.
- Since 2002, the percentage of students who have used any form of inhalant to get high has decreased at the rate of 14.1%.
- Since 2005, the percentage of students who used a needle to inject any illegal drug has decreased at the rate of 10.3%
- Since 2005, the percentage of students who have taken prescription drugs without a doctor's prescription has decreased at the rate of 16.2%.

Sexual Behavior/Education

- Since 2002, the percentage of students aged 12 or younger when they first had sexual intercourse has decreased at the rate of 12.6%.
- Since 2009, the percentage of students who usually talk with a teacher or other school adult about STDs, HIV, AIDS, or pregnancy prevention has increased at the rate of 44.2% (from 1.6% in 2009 to 4.8% in 2014).

Obesity and Diet

- Since 2005, the percentage of students who bought food/drinks from the school vending machine during the past seven days has decreased at the rate of 13.8%.

Increasing Trends of At-Risk Behavior

These trends indicate increases in the percentages of at-risk behavior:

Suicide

- Since 2009, the percentage of students who usually talk with teachers or other adults at school when sad, empty, hopeless, angry, or anxious has decreased at the rate of 12.0% (from 2.2% in 2009 to 1.5% in 2014).

Alcohol Use

- Since 2009, the percentage of students who acquired alcohol from a store has increased at the rate of 15.8% (from 1.4% in 2009 to 1.9% in 2014).

General Indicators

- Since 2007, the percentage of students who participate in any extracurricular activities such as sports, band, drama, or clubs has decreased at the rate of 13.0%.

2014-2011 Comparisons for the Middle School YRBS

Since the 2011 YRBS, these comparisons indicate statistically significant **changes for the better** in at-risk behavior:

- 24.7% more students have been taught about abstaining from sexual activity.
- 32.7% more students have been taught about AIDS or HIV infection.
- 27.8% more students have been taught about sexually transmitted diseases.
- 3.2% more students usually talk with a teacher or other school adult about STDs, HIC, AIDS, or pregnancy prevention.

Since the 2011 YRBS, these comparisons indicate statistically significant **changes for the worse** in at-risk behavior:

- 10.2% more students never or rarely wore a helmet when riding a bicycle.
- 9.2% more students carried a weapon.
- 4.7% more students made a plan about how they would kill themselves.
- 4.5% more students had sexual intercourse.
- 11.6% more students described themselves as slightly or very overweight.
- 6.8% more students ate junk food 3+ times per day.
- 9.3% fewer students were physically active for at least 60 minutes per day on five or more days in a week.
- 46.1% fewer students participated in PE for five days per week.
- 8.6% fewer students played on one or more sports teams.
- 7.8% more students played video games or used a computer for something other than school work 3+ hours/day on an average school day.

Macon-North Carolina Comparisons for the Middle School YRBS (Statistically Significant)

Less At-Risk than North Carolina

- In 2014, 32.1% of Macon middle school students indicated that they had been bullied on school property, 10.6% less than North Carolina students (42.7%).
- In 2014, of those who drank alcohol 1.8% of Macon middle school students indicated that they had gotten alcohol from someone who had given it to them, 2.9% less than North Carolina students (4.7%).
- In 2014, 28.7% of Macon middle school students indicated that they watched 3+ hours of TV per average school day, 7.8% less than North Carolina students (36.5%).
- In 2014, 22.7% of Macon middle school students indicated that they played video games or used computers for something other than school work 3+ hours per average school day, 18.4% less than North Carolina students (41.1%).
- In 2014, 52.7% of Macon middle school students indicated that they were trying to lose weight, 8.6% more than North Carolina students (44.1%).²

More At-Risk than North Carolina

- In 2014, 78.7% of Macon middle school students indicated that they never or rarely wore a helmet when riding a bicycle, 5.9% more than North Carolina students (72.8%).
- In 2014, 45.3% of Macon middle school students indicated that they had carried a weapon such as a gun, knife, or club, 10% more than North Carolina students (35.3%).
- In 2014, 46.6% of Macon middle school students indicated that they had been taught about chlamydia, gonorrhea, syphilis, or Human Papilloma Virus/genital warts in school, 6.3% less than North Carolina students (40.3%).
- In 2014, 18% of Macon middle school students indicated that when they had questions about sexually transmitted diseases or pregnancy prevention they usually talked with their parents, 6.9% less than North Carolina students (24.9%).
- In 2014, 37.5% of Macon middle school students described themselves as slightly or very overweight, 11.8% more than North Carolina students (25.7%).

² This could be taken as a positive or a negative, but since Macon County has a high percentage of overweight students, the attempt to lose weight is perceived as a positive step.

- In 2014, 82.6% of Macon middle school students indicated that they ate dinner prepared at home with their family on 3+ days of the past seven days, 8.6% less than North Carolina students (91.2%).
- In 2014, 40.7% of Macon middle school students indicated that they participated in extracurricular activities such as sports, band, drama, clubs, 10.8% less than North Carolina students (51.5%).
- In 2014, 15.5% of Macon middle school students indicated that they considered themselves to have a disability, 4.9% more than North Carolina students (10.6%).
- In 2014, 21.1% of Macon middle school students indicated that they were alone without a parent or adult 3+ hours on an average school day, 5.9% more than North Carolina students (15.2%).
- In 2014, 58.7% of Macon middle school students strongly disagreed/disagreed that they felt alone in their life, 9% less than North Carolina students (67.7%).

Middle School Race and Gender Contingencies

In the gender contingency table below, “X” indicates the population of students who are at-risk. For example, males were more at-risk for carrying weapons.

Statistically Significant Behavior × Gender Contingencies		
Macon County Middle Schools		
Behavior	More Likely To	
	Male	Female
Q6. Be Unsure of Academic Grades	X	
Q11. Carry Weapons	X	
Q13. Be in a Physical Fight	X	
Q14. Be in a Fight and Required Medical Treatment	X	
Q20. Be Electronically Bullied		X
Q21. Feel So Sad or Hopeless That Stopped Usual Activities		X
Q22. Have Seriously Thought of Killing Oneself		X
Q23. Have Made Plan for Killing Oneself		X
Q24. Confide in Friend or Sibling Instead of Adult When Sad, etc.		X
Q29. Use Tobacco Other Than Cigarettes	X	
Q48. Not Be Sure if their Sexual Activity resulted in Pregnancy	X	
Q50. Not Have Been Taught Abstinence	X	
Q52. Not Have Been Taught about STDs	X	
Q54. Perceive Self as Slightly or Very Overweight		X
Q55. Try to Lose Weight ²		X
Q56. Exercise to Lose Weight ²		X
Q57. Eat Less Food to Lose Weight ²		X
Q58. Fast to Lose Weight		X
Q61. Not Eat Fruit	X	
Q73. Play Video Games 3+ Hours per Day	X	
Q75. Not Play on a Sports Team		X
Q86. Have an Episode of Asthma or Asthma Attack		X
Q87. Feel Stress		X
Q92. Not Feel Good about Self		X
Notes.		
¹ See Appendix D for contingencies, chi-square statistics, and residuals.		
² Generally trying to lose weight, exercising to lose weight, and eating less food to lose weight can be interpreted as good efforts to address a problem. These strategies, however, can also be interpreted as indicators of an at-risk condition—that of being obese or overweight or having the unhealthy perception that one is obese or overweight.		

Discussion and Recommendations, Middle School

The Good News

Macon County is doing tremendously good work in combating at-risk behaviors. Numerous indicators show decreasing instances of at-risk behaviors. For example, instances of injuries or violence are trending downwards for sexual assault. Along these lines, since 2014 YRBS results indicate improvements in sex education. For example, more students report that they have been taught about abstinence, AIDS and the HIV virus, and sexually transmitted diseases. Moreover, YRBS results indicate an increase of students reporting that they speak with teachers and other school adults when they have questions about AIDS, STDs, or pregnancy prevention. Long-term improvements are also noted for tobacco, alcohol, and drug use. For example, the long-term frequency of smoking has decreased. Likewise, the long-term frequencies for using forms of cocaine, hallucinogens, inhalants, and prescription drugs are all trending downward.

Areas for Improvement

Since 2011, more students report that they are slightly or very overweight, and along these lines, the rate of junk food consumption is up. Moreover, since 2011 the rate of physical activity is down. Additionally, the long-term trend for student participation in extracurricular activities such as sports, band, or drama is in the negative direction. Compared to an independent statewide sample of North Carolina students, a greater percentage of Macon middle school students describe themselves as slightly or very overweight. Likewise, Macon middle school students have a lower rate of participation in extracurricular activities than North Carolina students.

Regarding perceptions of weight and some of the at-risk indicators for nutrition, females are more at risk than males for the following: 1). the self-perception of being slightly or very overweight, 2). trying to lose weight, 3). exercising to lose weight, 4). eating less food to lose weight, and 4). fasting to lose weight. Macon middle school females are also more at-risk than males for electronic bullying, feeling sad and hopeless, feeling stress, suicidal thinking, suicidal planning, and generally not feeling good about themselves. Males are more at risk than females for fighting, for being hurt in fights, and for carrying weapons.

Complicating the interpretation of the sexual education results reported above, the overall rate of students reporting that they have had sexual intercourse is up; and within this context, Macon middle school males are more at risk for not being taught about abstinence and STDs.

Recommendations

CARA recommends curriculum development and programming that promotes good nutrition and physical activity. In particular, CARA recommends programming for females that addresses the at-risk behaviors for self-image, nutrition, and participation in extracurricular activities. Continued sex education, is also recommended, with expanded efforts for males.

A note regarding the High School BMI. 58.3% of high school students were within normal range for BMI. The percentage of students who were considered *underweight*, *overweight*, and *obese* were 9.3%, 23.0%, and 9.4% respectively. Of the 74 students who were *obese*, 60.8% were male, compared to 39.2% who were female. This difference was statistically significant. CARA recommends nutrition and physical activity interventions for high school students, with expanded efforts for males.

An Overview of the Youth Risk Behavior Survey

What is the Youth Risk Behavior Survey?

The YRBS is a national school-based survey developed by the Centers for Disease Control and Prevention (CDC). First developed in 1990, the survey is typically administered to adolescent youth every two years to monitor health risk behaviors that contribute to deaths, disability, and social problems among youth in the United States. The CDC has grouped the behaviors often established during childhood and early adolescence into six general health risk areas:

- Alcohol and Drug Use
- Injury & Violence (including suicide)
- Tobacco Use
- Nutrition
- Physical Activity
- Sexual Risk Behaviors

Why conduct the Youth Risk Behavior Survey?

Practicing healthy behaviors, such as maintaining a diet that is low in fat, high in fruit and vegetables, getting regular physical activity, and refraining from tobacco and alcohol use would prevent many premature deaths. With health-related behaviors beginning during childhood, a healthy lifestyle needs to be promoted before unhealthy behaviors become a habit. The Youth Risk Behavior Survey enables educators and program planners to:

- Determine the prevalence of health risk behaviors;
- Create awareness about priority health risk behaviors and related health problems;
- Plan and implement programming for responding to trends in health risk behaviors;
- Set program goals and objectives and monitor progress toward those goals; and
- Provide comparable national, state, and local data.

YRBS Limitations, Validity and Reliability

Recognizing that data from the YRBS will be used to guide the development, implementation, and evaluation of interventions designed to prevent and reduce risky behaviors, it is important not only to understand how to interpret the findings, but also to have confidence in the validity and reliability of the data.

As with the statewide and national YRBS, the findings in this report are subject to several limitations. The survey may not accurately reflect the behaviors among youth who attend private school, are home-schooled, or those who have dropped out of school. Studies conducted among alternative education students and dropouts have shown a significantly higher incidence of behaviors that put children at risk.

One of the more significant limitations of the YRBS, whether conducted at the local, state, or national level, is that the data are self-reported by respondents, rather than the product of direct observation. However, direct observation of risk behaviors in young people would be difficult and random at best.

Although there is the possibility that students, intentionally or unintentionally, may inaccurately report information, survey experts believe that the number of students responding more or less than the true value is probably about the same and balance each other out. In previous studies, test/re-test reliability for YRBS has been acceptable to high for most survey items; further, YRBS items have been revised through the years to improve reliability.

The YRBS solicits self-reported descriptive data on the who, what, when, and where of health risk behaviors across six major categories. What is lacking, however, is information on the how and why of a particular behavior. These are important areas for further investigation and are of great importance in developing and establishing effective interventions for reducing the prevalence of unhealthy behaviors among adolescents living in Macon County.

Macon County Surveys for Middle and High School Students

For 2014, Macon County administered surveys for both middle and high school students. In all, the middle school survey included 96 questions covering demographics (i.e., age, gender, grade level, academic performance, and ethnicity); at-risk behaviors for personal safety, weapons, and violence; indicators of suicidal thoughts and actions; tobacco use; use of alcohol and other drugs; sexual activity and sexual education; nutrition, exercise and lifestyle; and perceptions of school as a safe place. See the complete middle school survey in Appendix A.

The high school survey contained 99 questions covering demographics (including height and weight questions used for calculating students' Body Mass Index and their perceptions of weight); at-risk behaviors for personal safety, weapons, violence, and abuse; indicators of suicidal thoughts and actions; tobacco use; use of alcohol, and other drugs; sexual activity and sexual education; nutrition, exercise and lifestyle; and perceptions of school as a safe place. As compared with the middle school survey, the high school YRBS included additional questions about tobacco, drug, and alcohol use; height and weight; and sexual activity. Moreover, the sections concerning tobacco, drugs & alcohol, and sexual activity are more detailed. See the complete high school survey in Appendix B.

Macon County Respondents for Middle and High School Surveys

A total of 1,795 students responded to the surveys in this report, 761 middle school respondents and 1,034 high school respondents. Both surveys were administered to high school and middle school students in April 2014. Participation was voluntary, giving students the opportunity to do other activities if they did not want to take the survey. Demographic profiles of middle school and high school respondents, counting grade and gender, are given below.

Table 1. Middle School Demographics

Class and Gender Counts

Grade	# Female	# Male	# TOTAL
6 th	105 (13.8%)	125 (16.4%)	230 (30.2%)
7 th	142 (18.7%)	138 (18.1%)	280 (36.8%)
8 th	124 (16.3%)	126 (16.6%)	250 (32.9%)
Not specified	---	1 (0.1%)	1 (0.1%)
TOTAL	371 (48.8%)	390 (51.2%)	761 (100%)

Notes.

- 761 total respondents, with one student not reporting grade.
- 88.8% of students reported that they were white. 17.4% of students indicated that they were Hispanic or Latino.
- 65.2% reported that they made mostly A's or B's for grades. 23.3% reported that they made mostly C's, D's, or F's.

Table 2. High School Demographics

Class and Gender Counts

Grade	# Female	# Male	# TOTAL
9 th	137 (13.2%)	177 (17.1%)	314 (30.4%)
10 th	159 (15.4%)	137 (13.2%)	296 (28.6%)
11 th	128 (12.4%)	111 (10.7%)	239 (23.1%)
12 th	76 (7.4%)	96(9.3%)	172 (16.6%)
Not specified	---	---	13 (1.3%)
TOTAL	500 (48.3%)	521 (50.4%)	1,034 (100%)

Notes.

- 1,034 total respondents, with thirteen students not reporting gender/grades.
- 89.9% of students reported that they were white. 12.1% of students indicated that they were Hispanic or Latino.
- 71.5% reported that they made mostly A's or B's for grades. 23.1% reported that they made mostly C's, D's, or F's.

2014 Analyses

- CARA first calculated the At-Risk percentages for 2014 Macon County middle and high school YRBSs. Then, the following differences in proportions were calculated:
 - 2014—2011 Macon County Middle Schools
 - 2014 Macon County—2014 North Carolina, Middle Schools
- For these differences in proportions, CARA constructed 95% confidence intervals. Then, CARA calculated Cohen's h for a measure of effect size for statistically significant confidence intervals.
- Compound annual growth rates were determined for long-term trends.
- Behavior \times Gender contingencies were analyzed with crosstabs, the chi-square test, and standardized residuals.
- Body Mass Index and Perceptions of Weight percentages were calculated for high school students. A BMI \times Gender contingency table was analyzed with the chi-square test and standardized residuals.
- See Appendix C for a technical explanation of analyses.

Important note for 2014 statistical analyses: Measures of statistical significance and effect size offer an important way to interpret survey results. However, the conventional guidelines for evaluating small, moderate, and large effect sizes offer arbitrary indices for examining the practical significance of findings. To best interpret results readers should consider the context and history, as well as the measures of practical significance given in this report.

2014 Middle School Results

Percentages of At-Risk Behavior

Long-Term Trends

2014-2011 Comparisons

2014 percentages of at-risk indicators are given in Tables 3-16. The compound average growth rate (CAGR) indicates overall trends in data from 2002-2014. CAGRs with rate changes of 10% or greater are highlighted, signifying notable increases or decreases in at-risk behavior. 2014-2011 differences are also reported. Confidence Intervals and effect sizes are reported for significant differences.

For Example

Table 12. Nutrition Macon County Middle Schools											
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h	
61. Ate fruits 3+ times during the past 7 days											
74.5 n=636	78.4 n=541	77	73.4	NA	NA	0.4	-3.9 v				
62. Ate vegetables 3+ times during the past 7 days											
66.4 n=634	67.1 n=538	72.6	64.2	NA	NA	0.8	-0.7 v				
63. Ate junk food 3+ times/day											
				NA	NA	3.8	7.1 ^	1.5 and 12.7	***	0.20	
Percentages of at-risk behavior from the 2014 YRBS are reported in this column.											
Percentages from prior years are also reported.											
"N" is the total number of people who responded to a question.											
64. Ate junk food 3+ times/day											
				NA	NA	-5.7					
65. Ate junk food 3+ times/day											
				NA	NA	-2.2					
66. Ate junk food 3+ times/day											
				23.1	NA	-6.9					
67. Bought food/drinks from school vending machines during the past 7 days											
21.4 n=636	21.4 n=541	21.4	21.4	NA	NA	-13.9	4.0 ^				
68. Bought food/drinks from school vending machines during the past 7 days											
4.4 n=634	4.4 n=538	4.4	4.4	NA	NA	0.9	-3.3 v				
69. Ate junk food 3+ times/day											
6.7 n=634	6.7 n=538	6.7	6.7	NA	NA	-0.8	-2.4 v				
70. Ate junk food 3+ times/day											
7.1 n=634	7.1 n=538	7.1	7.1	NA	NA	-0.8	-2.4 v				
71. Ate junk food 3+ times/day											
7.1 n=634	7.1 n=538	7.1	7.1	NA	NA	-0.8	-2.4 v				

2014-2011 differences are reported in this column. Arrows (^ v) indicate increases or decreases in percentages. Statistically significant differences are highlighted.

Percentages of at-risk behavior from the 2014 YRBS are reported in this column. Percentages from prior years are also reported. "N" is the total number of people who responded to a question.

Confidence intervals were constructed to determine statistical significance. Only statistically significant confidence intervals are reported in this column. Statistically significant confidence intervals are highlighted by asterisks.

Effect sizes for statistically significant differences are reported in this column.

Long-term trends are reported in this column. Double-digit trends are highlighted. The negative sign indicates a downward trend.

Table 3. Unintentional Injuries and Violence										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
07. Never/rarely wore a seat belt when riding in a car										
8.9 n=764	10.5 n=562	9.1	13.8	12.2	16.7	-10.0	-1.6 ▼			
08. Never/rarely wore a bicycle helmet										
78.7 n=596	68.5 n=449	73.1	75.6	NA	NA	1.0	10.2 ▲	2.3 and 18.1	***	0.23 small
09. Never/rarely wore a helmet when riding a four-wheeler during the past 12 months										
63.7 n=416	59.3 n=329	57.2	NA	59.2	NA	3.7	4.4 ▲			
10. Rode in a car driven by someone who had been drinking alcohol										
22.7 n=761	22.9 n=560	26.4	34.0	32.0	35.5	-7.2	-0.2 ▼			
11. Carried a weapon, such as a gun, knife, or club										
45.3 n=755	36.1 n=559	45.4	48.1	51.1	NA	-2.4	9.2 ▲	1.4 and 17.0	***	0.19 small
12. Threatened or injured by a weapon on school property										
6.5 n=755	6.5 n=560	6.9	6.6	11.1	NA	-10.2	0.0			
13. Have ever been in a physical fight										
48.4 n=763	50.8 n=561	54.0	55.3	NA	NA	-3.3	-2.4 ▼			
14. Have ever been in a physical fight in which they were hurt										
7.2 n=761	7.5 n=562	6.5	7.5	8.4	12.9	-9.3	-0.3 ▼			
15. Did not go to school because they felt unsafe										
4.2 n=756	3.8 n=560	4.6	4.1	9.8	8.5	-11.1	0.4 ▲			
16. Have property stolen or damaged on school property										
19.3 n=763	20.7 n=561	25.4	29.6	41.5	36.9	-10.2	-1.4 ▼			
17. Was physically hurt by boyfriend/girlfriend during the past 12 months										
5.2 n=762	4.3 n=559	7.6	8.2	8.1	10.9	-11.6	0.9 ▲			
18. Was forced to have sexual intercourse										
2.9 n=755	6 n=554	5.1	6.7	5.5	7.7	-15.0	-3.1 ▼			

Table 3 continued. Unintentional Injuries and Violence										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
19. Have been bullied on school property										
32.1 n=763	26.8 n=560	32.1	33.2	37.5	NA	-3.1	5.3 [^]			
20. Have been electronically bullied										
17.5 n=762	17.3 n=562	14.6	NA	NA	NA	6.2	0.2 [^]			

Table 4. Attempted Suicide										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
21. Felt sad or hopeless almost every day for 2+ weeks and stopped doing some usual activities										
22.1 n=756	21.7 n=554	24	24.5	29.9	25.5	-2.4	0.4 [^]			
22. Seriously thought about killing themselves										
20.0 n=759	16 n=562	20	22.1	23.9	22.6	-2.0	4.0 [^]			
23. Made a plan about how they would kill themselves										
13.3 n=751	8.6 n=556	13.6	14.4	15.4	NA	-2.9	4.7 [^]	0.4 and 9.0	***	0.15 Small
24. Usually talk with teachers or other adults at school when sad, empty, hopeless, angry, or anxious										
1.5 n=741	3 n=438	2.2	NA	NA	NA	-12.0	-1.5 ^v			

Table 5. Tobacco Use										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
25. Smoked a whole cigarette for the first time before age 11										
5.0 n=758	3.2 n=560	9.6	NA	NA	NA	-19.5	1.8 [^]			
26. Smoked cigarettes on 1+ days of the past 30 days										
5.8 n=762	4.4 n=562	9.4	12.8	15.4	NA	-17.7	1.4 [^]			
27. Tried to quit smoking cigarettes during the past 12 months										
5.1 n=759	3.2 n=556	5.9	9.6	10.9	NA	-14.1	1.9 [^]			
28. Usually get cigarettes from a gas station or store										
0.8 n=761	0.7 n=559	0.5	0.6	NA	NA	7.5	0.1 [^]			
29. Used chewing tobacco, snuff, or dip during the past 12 months										
6.2 n=757	4.6 n=560	8.0	7.1	8.7	9.2	-6.4	1.6 [^]			

Table 6. Alcohol Use										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
30. Had a drink of alcohol other than a few sips										
29.1 n=625	24.4 n=553	30.7	38.2	36.7	45.6	-7.1	4.9 [^]			
31. Had first drink of alcohol other than a few sips before age 11										
11.5 n=633	12.9 n=560	13.1	NA	NA	NA	-1.6	-0.4 ^v			
32. Usually got alcohol from purchase at a store										
1.9 n=638	1.3 n=560	1.4	1	NA	NA	15.8	0.5 [^]			

Table 7. Marijuana Use										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
33. Used marijuana										
11.6 n=753	7.7 n=559	10.2	12.4	14.1	18.9	-7.8	3.9 ^			
34. Tried marijuana for the first time before age 11										
4.6 n=762	3.2 n=563	4.6	NA	NA	NA	0.0	1.4 ^			
35. Used marijuana during the past 30 days										
5.7 n=759	3.2 n=564	5.1	5.4	7.6	12.8	-12.6	2.5 ^			
36. Used marijuana on school property during the past 30 days										
1.9 n=753	.9 n=561	1.3	1.3	2.4	NA	-4.6	1.0 ^			

Table 8. Other Drug Use										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
37. Used any form of cocaine, including powder, crack, or freebase										
3.9 n=763	2.7 n=562	2.2	4.2	7.3	9.7	-14.1	1.2 [^]			
38. Used LSD, PCP, mushrooms, ecstasy, or other hallucinogens										
3.6 n=760	2.3 n=562	3.5	3.8	6.4	10.8	-16.7	1.3 [^]			
39. Used any form of inhalant to get high										
7.9 n=762	9 n=557	9.8	15.2	12.9	19.6	-14.1	-1.1 ^v			
40. Used synthetic drug, e.g., bath salts, black magic, or red magic										
3.5 n=761	3.9 n=559	NA	NA	NA	NA	NA	-0.4 ^v			
41. Used a needle to inject any illegal drug										
1.8 n=759	1.6 n=558	1.4	2	3.1	NA	-10.3	0.2 [^]			
42. Took a prescription drug without a doctor's prescription										
4.5 n=750	5.4 n=552	6.0	6.7	10.9	NA	-16.2	-0.9 ^v			
43. Percentage of students who acquired prescription drugs from home										
7.8 n=761	5.0% n=557	NA	NA	Na	NA	NA	2.8 [^]			
44. Used methamphetamines										
3.2 n=756	2.7 n=557	3.0	2.9	NA	NA	2.5	0.5 [^]			
45. Have been offered an illegal drug on school property during the past 12 months										
7.1 n=757	4.5 n=551	6.6	8.7	8.7	NA	-4.0	2.6 [^]			

Table 9. Sexual Behavior										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
46. Had sexual intercourse										
13.0 n=763	8.5 n=554	16.5	20.8	19.1	21.1	-7.8	4.5 \wedge	0.3 and 8.7	***	0.15 Small
47. Aged 12 or younger when first had sexual intercourse										
6.3 n=761	6.8 n=557	11.3	15.2	11.9	14.1	-12.6	-0.5 \vee			
48. Have been pregnant or gotten someone pregnant										
3.2 n=756	2.2 n=550	2.6	3.6	2.4	5.0	-7.2	1.0 \wedge			
49. Had sexual intercourse with 4+ people										
2.5 n=764	2.3 n=555	3.7	4.8	4.2	NA	-9.9	0.2 \wedge			

Table 10. Sexual Education										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
50. Have been taught about abstaining from sexual activity										
58.7 n=756	34.0 n=550	47.1	45.2	59.4	NA	-0.2	24.7 \wedge	18.0 and 31.4	***	0.50 Moderate
51. Have been taught in school about AIDS or HIV infection										
64.8 n=759	32.1 n=551	42.9	49.7	71.2	NA	-1.9	32.7 \wedge	26.1 and 39.3	***	0.67 Moderate
52. Have been taught about chlamydia, gonorrhea, syphilis, or Human Papilloma Virus/genital warts										
46.6 n=758	18.8 n=549	25.9	35.8	34.2	NA	6.4	27.8 \wedge	21.6 and 34.0	***	0.61 Moderate
53. Usually talk with teachers/other adults at school about STD, HIV, AIDS, or pregnancy prevention										
4.8 n=754	1.6 n=548	1.6	NA	NA	NA	44.2	3.2 \wedge	0.8 and 5.6	***	0.19 Small

Table 11. Body Weight										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
54. Described themselves as slightly/very overweight										
37.5 n=746	25.9 n=536	29.2	29.6	33.7	30.4	3.6	11.6 [^]	4.6 and 18.6	***	0.25 Small
55. Trying to lose weight										
52.7 n=753	48.5 n=550	48.2	46.7	49.1	44.4	2.9	4.2 [^]			
56. Exercised to lose weight or to keep from gaining weight										
74.1 n=752	77.2 n=544	70.4	72.8	74.2	66.5	1.8	-3.1 ^v			
57. Ate less calories to lose weight or to keep from gaining weight										
45.5 n=750	50.4 n=544	46.4	51.3	51.3	36.7	3.6	-4.9 ^v			
58. Have been without eating for 24+ hours to lose weight or to keep from gaining weight										
20.0 n=754	16 n=544	15.3	21.4	NA	NA	-1.7	4.0 [^]			
59. Took diet pills without a doctor's advice to lose weight or to keep from gaining weight										
6.8 n=750	4.3 n=540	5.9	7.5	6.3	10.0	-6.2	2.5 [^]			
60. Vomited/took laxatives to lose weight or to keep from gaining weight										
6.2 n=622	5.2 n=532	4.1	7.3	7.3	6.4	-0.5	1.0 [^]			

Table 12. Nutrition										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
61. Ate fruits 3+ times during the past 7 days										
74.7 n=759	78.4 n=541	77	73.4	NA	NA	0.4	-3.7 ▼			
62. Ate vegetables 3+ times during the past 7 days										
66.7 n=756	67.1 n=538	72.6	64.2	NA	NA	1.0	-0.4 ▼			
63. Ate junk food 3+ times/day										
17.6 n=752	10.8 n=536	18.6	15.4	NA	NA	3.4	6.8 ▲	1.4 and 12.2	***	0.20 small
64. Drank soda 1+ times/day										
26.6 n=757	27.9 n=541	34.8	32.5	NA	NA	-4.9	-1.3 ▼			
65. Drank sweetened beverage 1+ times/day										
31.1 n=752	30 n=537	36.2	34.6	NA	NA	-2.6	1.1 ▲			
66. Drank milk 3+ times/day										
14.7 n=746	16.1 n=529	20.4	23	23.1	NA	-8.6	-1.4 ▼			
67. Bought food/drinks from school vending machines during the past 7 days										
23.7 n=752	19.5 n=534	23.2	24.8	49.7	NA	-13.8	4.2 ▲			
68. Ate breakfast on seven of the past seven days										
45.9 n=753	50.3 n=533	48.1	42.5	45.0	NA	0.4	-4.4 ▼			
69. Ate dinner prepared at home with their family on 4+ days of the past seven days										
82.6 n=748	78.2 n=522	75.5	75.4	79.1	NA	0.9	4.4 ▲			

Table 13. Physical Activity										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
70. Were physically active for at least 60 min/day on 5+ days of the past seven days										
58.8 n=758	68.1 n=533	60	67.3	NA	NA	-3.3	-9.3 ▼	-2.0 and -16.6	***	0.19 small
71. Attends PE class every day during the average school week										
17.3 n=735	63.4 n=514	15.9	26.5	24.7	NA	-6.9	-46.1 ▼	-39.3 and -52.9	***	0.98 large
72. Watches 3+ hours/day of TV on an average school day										
28.7 n=742	31 n=519	30.8	36.1	31.6	NA	-1.9	-2.3 ▼			
73. Play video games or use computer not for school work 3+ hours/day on an average school day										
22.7 n=750	18.1 n=526	23.3	20	NA	NA	3.2	4.6 ▲			
74. Play video games or use computer not for school work 3+ hours/day on an average Saturday or Sunday										
42.6 n=744	38.5 n=525	51.7	NA	NA	NA	-6.2	4.1 ▲			
75. Participated in 1+ sports teams during the past 12 months										
56.2 n=740	64.8 n=508	62.1	61.6	NA	NA	-2.3	-8.6 ▼	-1.1 and -16.1	***	0.18 small
76. Play video games or use computer not for school work 3+ hours/day on an average school day (duplicate of question #73.)										
25.9 n=745	18.1 n=526	23.3	20	NA	NA	6.7	7.8 ▲	1.6 and 14.0	***	0.19 small

Table 14. Sun Safety and Sleep										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
77. Most of the time/always wear sunscreen when outside for 1+ hours on a sunny day										
13.7 n=742	15.7 n=517	11.3	10.4	NA	NA	7.1	-2.0 ▼			
78. Get 8 hours of sleep on an average school night										
33.4 n=737	31.4 n=506	30.7	31.1	30.9	NA	1.6	2.0 ▲			

Table 15. General Items										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
79. Consider themselves to have a disability										
15.5 n=735	11.8 n=501	11.3	12.4	10.9	9.6	8.3	3.7 [^]			
80. Are alone without a parent or adult 3+ hours on an average school day										
21.1 n=741	15.8 n=505	15.3	22.7	NA	NA	-1.8	5.3 [^]			
81. Participate in any extracurricular activities such as sports, band, drama, clubs										
40.7 n=703	45.7 n=488	41.6	71	NA	NA	-13.0	-5.0 ^v			
82. Participated in 2+ community service projects in the past 30 days										
15.9 n=743	20.5 n=503	19.4	19.7	NA	NA	-5.2	-4.6 ^v			
83. Had medical check-up when not sick or injured during the past 12 months										
53.7 n=737	57.7 n=503	55.1	55.5	55.2	54.9	-0.4	-4.0 ^v			
84. Had dental check-up or dental work during the past 12 months										
62.5 n=738	62.4 n=497	63.6	63.0	63.4	65.6	-0.8	0.1 [^]			
85. Told by a doctor or nurse that they had asthma										
22.1 n=733	17.6 n=495	21.6	18.8	NA	NA	4.1	4.5 [^]			
86. Had an episode of asthma or an asthma attack during the past 12 months										
5.6 n=735	7.1 n=493	20.5	6.4	NA	NA	-3.3	-1.5 ^v			
87. All of the time/most of the time feel stress in life										
23.8 n=734	25.4 n=492	23.4	27.3	27	24.6	-0.5	-1.6 ^v			
88. Self-rate health as fair/poor										
12.2 n=738	9.7 n=494	8.7	11.3	NA	NA	1.9	2.5 [^]			
89. Most influenced by friends/peers about health decisions										
13.8 n=723	15 n=487	12.7	16.6	18.7	21.6	-7.2	-1.2 ^v			
90. Prefer to get health information from friends/peers										
7.8 n=730	8.2 n=489	8.2	8.4	8.6	13.5	-8.7	0.4 ^v			

Table 16. Agree or Disagree										
Macon County Middle Schools										
2014 %	2011 %	2009 %	2007 %	2005 %	2002 %	CAGR % '02-'14	2014-2011 More or Less	95% Confidence Intervals for 2014-2011 % difference is between	Statistical Significance ***	Effect Size (2014-2011) Cohen's h
91. Strongly agree/agree that they feel alone in their life										
22.9 n=739	17.7 n=491	17.3	19.1	15.6	NA	8.0	5.2 [^]			
92. Strongly agree/agree that they feel good about themselves										
71.3 n=735	75 n=492	74.9	72.7	73	NA	-0.5	-3.7 ^v			
93. Strongly agree/agree that their teachers really care and give a lot of encouragement										
56.5 n=722	60.4 n=482	57.2	NA	NA	NA	-0.4	-3.9 ^v			
94. Agree/strongly agree harassment and bullying is a problem at school										
52.7 n=736	46.6 n=489	51	58.3	49.6	NA	1.2	6.1 [^]			
95. Strongly agree/agree that gangs are a problem at their school										
20.8 n=734	20.3 n=483	22.5	NA	NA	NA	-2.6	0.5 [^]			
96. Strongly agree/agree that drugs are a problem at their school										
31.8 n=721	25.8 n=465	27.3	31.5	32.2	NA	-0.2	6.0 [^]			

Macon County-North Carolina Middle School Comparisons

Tables 17-28 report the differences in at-risk behavior between Macon middle school students and an independent statewide sample of North Carolina students. Margins of error are reported for each comparison. Statistically significant differences and their effect sizes are highlighted. For example, 5.9% more Macon County students report that they never or rarely wear a bicycle helmet (see Table 17). This difference in proportions is statistically significant, with a small effect size.

Table 17. Macon Middle—North Carolina Comparisons						
Unintentional Injuries and Violence						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen’s h
07. Never/rarely wore a seat belt when riding in a car	8.9	6.4	2.5 ^	3.5		
08. Never/rarely wore a bicycle helmet	78.7	72.8	5.9 ^	5.9	***	0.14 small
10. Rode in a car driven by someone who had been drinking alcohol	22.7	19.3	3.4 ^	5.3		
11. Carried a weapon, such as a gun, knife, or club	45.3	35.3	10.0 ^	6.3	***	0.20 small
12. Threatened or injured by a weapon on school property	6.5	4.1	2.4 ^	3.0		
13. Have ever been in a physical fight	48.4	50.7	-2.3 v	6.4		
14. Have ever been in a physical fight in which they were hurt	7.2	4.6	2.6 ^	3.1		
15. Did not go to school because they felt unsafe	4.2	4.3	-0.1 v	2.6		
16. Have property stolen or damaged on school property	19.3	22.3	-3.0 v	5.2		
19. Have been bullied on school property	32.1	42.7	-10.6 v	4.8	***	0.22 small
20. Have been electronically bullied	17.5	19.3	-1.8 v	3.9		

Table 18. Macon Middle—North Carolina Comparisons						
Attempted Suicide						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
21. Felt sad or hopeless almost every day for 2+ weeks and stopped doing some usual activities	22.1	22.7	-0.6 ▼	4.7		
22. Seriously thought about killing themselves	20.0	19.1	0.9 ▲	4.5		
23. Made a plan about how they would kill themselves	13.3	14	-0.7 ▼	3.9		
24. Usually talk with parent when sad, empty, hopeless, angry, or anxious	25.4	26.5	-1.1 ▼	5.0		

Table 19. Macon Middle—North Carolina Comparisons						
Tobacco Use						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
25. Smoked a whole cigarette for the first time before age 11	5.0	4.9	0.1 ▲	2.5		
26. Smoked cigarettes on 1+ days of the past 30 days	5.8	6.1	-0.3 ▼	2.7		
26. Smoked cigarettes on 20+ days of the past 30 days	0.8	1.3	-0.5 ▼	1.1		
29. Used chewing tobacco, snuff, or dip during the past 12 months	6.2	4.4	1.8 ▲	2.7		

Table 20. Macon Middle—North Carolina Comparisons						
Alcohol Use						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
30. Had a drink of alcohol other than a few sips	29.3	26.2	3.1 ^	4.9		
31. Had their first drink of alcohol other than a few sips before age 11	12.5	10	2.5 ^	3.5		
32. Usually got alcohol from someone	1.8	4.7	-2.9 v	1.8	***	0.17 small

Table 21. Macon Middle—North Carolina Comparisons						
Marijuana Use						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
33. Used marijuana	11.6	12.7	-1.1 v	3.7		
34. Tried marijuana for the first time before age 11	4.6	3.4	1.2 ^	2.2		
35. Used marijuana during the past 30 days	5.7	5.7	0	2.6		

Table 22. Macon Middle—North Carolina Comparisons						
Other Drug Use						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
37. Used any form of cocaine, including powder, crack, or freebase	3.9	2.4	1.5 ^	2.2		
39. Used any form of inhalant to get high	7.9	7.5	0.4 ^	3.3		
42. Took a prescription drug without a doctor's prescription	4.5	5.1	-0.6 v	2.7		
45. Have been offered an illegal drug on school property during the past 12 months	7.1	9.0	-1.9 v	3.3		

Table 23. Macon Middle—North Carolina Comparisons						
Sexual Behavior						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
46. Had sexual intercourse	13.0	11.4	1.6 ^	3.7		
50. Have been taught about abstaining from sexual activity	58.7	60.1	-1.4 v	5.5		
51. Have been taught in school about AIDS or HIV infection	64.8	67.1	-2.3 v	5.3		
52. Have been taught about chlamydia, gonorrhea, syphilis, or Human Papilloma Virus/genital warts	46.6	40.3	6.3 ^	5.6	***	0.13 small
53. Usually talk with parents about STD, HIV, AIDS, or pregnancy prevention	18.0	24.9	-6.9 v	4.5	***	0.17 small

Table 24. Macon Middle—North Carolina Comparisons						
Body Weight						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
54. Described themselves as slightly/very overweight	37.5	25.7	11.8 ^	5.7	***	0.25 small
55. Were trying to lose weight	52.7	44.1	8.6 ^	6.1	***	0.17 small
56. Exercised to lose weight or to keep from gaining weight	74.1	69.7	4.4 ^	5.4		
57. Ate less calories to lose weight or to keep from gaining weight	45.5	45.3	0.2 ^	6.1		
58. Have been without eating for 24+ hours to lose weight or to keep from gaining weight	20.0	16.7	3.3 ^	4.7		
60. Vomited/took laxatives to lose weight or to keep from gaining weight	6.2	5.5	0.7 ^	2.9		

Table 25. Macon Middle—North Carolina Comparisons						
Nutrition						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
68. Ate breakfast on seven of the past seven days	45.9	47.7	-1.8 ▼	6.2		
69. Ate dinner prepared at home with their family on 3+ days of the past seven days	82.6	91.2	-8.6 ▼	4.4	***	0.26 small

Table 26. Macon Middle—North Carolina Comparisons						
Physical Activity						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
70. Were physically active for at least 60 min/day on 5+ days of the past seven days	58.8	57.0	1.8 ▲	6.0		
72. Watched 3+ hours/day of TV on an average school day	28.7	36.5	-7.8 ▼	5.6	***	0.17 small
73. Play video games or use computer not for school work 3+ hours/day on an average school day	22.7	41.1	-18.4 ▼	5.4	***	0.40 moderate
75. Participated in 1+ sports teams during the past 12 months	56.2	60.3	-4.1 ▼	6.0		

Table 27. Macon Middle—North Carolina Comparisons						
General						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
78. Get 8 or more hours of sleep on an average school night	55.5	56.2	-0.7 ▼	4.4		
79. Consider themselves to have a disability	15.5	10.6	4.9 ▲	4.5	***	0.15 small
80. Are alone without a parent or adult 3+ hours on an average school day	21.1	15.2	5.9 ▲	5.1	***	0.15 small
81. Participate in any extracurricular activities such as sports, band, drama, clubs	40.7	51.5	-10.8 ▼	6.5	***	0.22 small
83. Had medical check-up when not sick or injured during the past 12 months	53.7	56.1	-2.4 ▼	6.5		
84. Had dental check-up or dental work during the past 12 months	62.5	66	-3.5 ▼	6.3		
85. Have been told by a doctor or nurse that they had asthma	21.1	22.3	-0.2 ▼	5.4		

Table 28 Macon Middle—North Carolina Comparisons						
Agree or Disagree						
Question	Macon	NC	Difference Macon-NC More or Less	Margin of Error	Statistical Significance ***	Effect Size Cohen's h
91. Strongly disagree/disagree that they feel alone in their life	58.7	67.7	-9.0 ▼	5.8	***	0.19 small
92. Strongly agree/agree that they feel good about themselves	71.3	74.6	-3.3 ▼	5.4		
93. Strongly agree/agree that their teachers really care and give a lot of encouragement	56.5	60.1	-3.6 ▼	6.0		

Significant Middle School Contingencies for Behavior × Gender

See the Executive Summary for all statistically significant Behavior × Gender contingencies of middle school students. Statistically significant crosstabs with X^2 results and standardized residuals greater than 2.0 are interpreted in that table. See Appendix F for significant crosstabs and statistical analyses.

2014 High School Results

Percentages of At-Risk Behavior for High School Students.

See Appendix E for frequency tables of at-risk behavior for high school students.

2014 Body Mass Index and Perceptions of Weight for High School Students

The Body Mass Index (BMI) is a number calculated from a person’s height and weight. The BMI is used as an indicator of body fatness for people. It does not measure body fat directly, but it does correlate with direct measures of body fat. The BMI is an inexpensive, easy-to-perform alternative for screening weight categories that may lead to health problems.

For this report, the BMI was calculated using the formula of: $\text{Weight (lbs)}/[\text{height(in)}]^2 \times 703$. For example, if one’s height is 5’1” and weight is 130 lbs, his/her BMI would look like this: $130/(61)^2 \times 703 = 24.6$, putting this person’s BMI within the normal range.

The ranges for the BMI include underweight, normal, overweight, and obese. These ranges are as follows:

- Underweight – below 18.5
- Overweight – 25.0-29.9
- Normal – 18.5-24.9
- Obese – 30.0 or higher.

For Macon County schools, height and weight were only asked of high school respondents. 58.3% of high school students were within normal range for BMI (see Table 30). The percentage of students who were considered *underweight*, *overweight*, and *obese* were 9.3%, 23.0%, and 9.4% respectively.

Of the 74 students who were *obese*, 60.8% were male, compared to 39.2% who were female. This difference was statistically significant, $X^2 = 9.764$ with 3 df, $p = 0.021$, standardized residual = 2.1 for males.

Table 29. Macon County High School, BMI and Weight Perceptions			
BMI Ranges	BMI % n=797	Perception % n=796	Perception Ranges
Underweight BMI <18.5	9.3	13.0	Very or slightly underweight
Normal 18.5 ≤ BMI ≤ 24.9	58.3	51.9	About the right weight
Overweight 25 ≤ BMI < 30	23.0	31.7	Slightly overweight
Obese BMI ≥ 30	9.4	3.4	Very overweight

When asked how they viewed their weight, more students answered being underweight or slightly overweight than was actually the case when compared to the BMI results: 13% of students reported feeling as if they were very or slightly underweight and 31.7% indicated they slightly overweight. Slightly more than half (51.9%) reported feeling they were about the right weight. Only 3.4% of students considered themselves to be very overweight as compared to 9.4% of students were obese according to actual BMI results.

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