Missouri High School Survey
10-year Trend Analysis Report

Total
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN8: Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else)								
11.8	11.9		11.4	8.1	9.0	Decreased, 2007-2017	Not available[§]	No change
QN9: Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)								
27.8	24.6		19.3	18.5	15.7	Decreased, 2007-2017	Not available	No change
QN10: Percentage of students who drove a car or other vehicle when they had been drinking alcohol (one or more times during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			8.9	6.8	5.3	Decreased, 2013-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Injury and Violence

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN11: Percentage of students who texted or e-mailed while driving a car or other vehicle (on at least 1 day during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			46.0	47.0	46.4	No linear change	Not available[§]	No change
QN12: Percentage of students who carried a weapon (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
18.6	16.0		22.2	22.1	19.8	Increased, 2007-2017	Not available	No change
QN13: Percentage of students who carried a weapon on school property (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
			5.9	4.2		No linear change	Not available	No change
QN15: Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school (on at least 1 day during the 30 days before the survey)								
			6.1	6.4		No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN19: Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)								
10.3	8.1		10.2	8.4	10.2	No linear change	Not available[§]	No change
QN22: Percentage of students who experienced physical dating violence (being physically hurt on purpose by someone they were dating or going out with [counting such things as being hit, slammed into something, or injured with an object or weapon] one or more times during the 12 months before the survey, among students who dated or went out with someone during the 12 months before the survey)								
			9.6	11.7	10.4	No linear change	Not available	No change
QN23: Percentage of students who were bullied on school property (ever during the 12 months before the survey)								
	22.8		25.2	21.4	23.3	No linear change	Not available	No change
QN24: Percentage of students who were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey)								
				16.6	19.4	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Injury and Violence

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN25: Percentage of students who felt sad or hopeless (almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)								
23.6	27.1		27.3	27.5	31.3	Increased, 2007-2017	Not available§	No change
QN26: Percentage of students who seriously considered attempting suicide (ever during the 12 months before the survey)								
14.8	15.4		14.2	16.2	20.9	Increased, 2007-2017	Not available	Increased
QN27: Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)								
10.1	11.3		12.1	13.4	15.5	Increased, 2007-2017	Not available	No change
QN28: Percentage of students who attempted suicide (one or more times during the 12 months before the survey)								
7.9	6.4		6.9	9.8	8.6	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Total
Injury and Violence

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN29: Percentage of students who had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)

2.0	2.5		1.9	3.2	2.9	No linear change	Not available[§]	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN30: Percentage of students who ever tried cigarette smoking (even one or two puffs)								
50.9	46.5		39.2	34.5	28.6	Decreased, 2007-2017	Not available[§]	No change
QN32: Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)								
23.8	18.9		14.9	11.0	9.2	Decreased, 2007-2017	Not available	No change
QNFRCIG: Percentage of students who currently smoked cigarettes frequently (on 20 or more days during the 30 days before the survey)								
11.5	6.8		5.5	4.2	2.7	Decreased, 2007-2017	Not available	No change
QNDAYCIG: Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)								
8.9	5.5		3.9	3.1	2.0	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Tobacco Use**

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN34: Percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo])								
				40.6	39.9	No linear change	Not available[§]	No change
QN35: Percentage of students who currently used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey)								
				22.0	10.9	Decreased, 2015-2017	Not available	Decreased
QN38: Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey)								
15.0	13.5		13.3	12.1	9.2	Decreased, 2007-2017	Not available	No change
QNTB2: Percentage of students who currently smoked cigarettes or cigars (on at least 1 day during the 30 days before the survey)								
28.0	24.2		21.0	17.6	13.2	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Alcohol and Other Drug Use

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN41: Percentage of students who had their first drink of alcohol before age 13 years (other than a few sips)								
20.9	20.4		19.5	17.3	18.4	No linear change	Not available[§]	No change
QN42: Percentage of students who currently drank alcohol (at least one drink of alcohol, on at least 1 day during the 30 days before the survey)								
44.4	39.3		35.6	34.5	32.0	Decreased, 2007-2017	Not available	No change
QN43: Percentage of students who usually got the alcohol they drank by someone giving it to them (during the 30 days before the survey, among students who currently drank alcohol)								
37.6	41.0		34.0	39.9	42.4	No linear change	Not available	No change
QN48: Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)								
19.0	20.6		20.5	16.3	19.9	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN59: Percentage of students who ever had sexual intercourse								
52.1	48.7		43.1	37.7	41.9	Decreased, 2007-2017	Not available[§]	No change
QN60: Percentage of students who had sexual intercourse for the first time before age 13 years								
6.5	5.7		3.9	4.1	2.5	Decreased, 2007-2017	Not available	No change
QN62: Percentage of students who were currently sexually active (had sexual intercourse with at least one person, during the 3 months before the survey)								
40.6	35.5		32.4	27.5	32.3	Decreased, 2007-2017	Not available	No change
QN63: Percentage of students who drank alcohol or used drugs before last sexual intercourse (among students who were currently sexually active)								
21.9	23.3		20.7	20.4	15.5	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN64: Percentage of students who used a condom during last sexual intercourse (among students who were currently sexually active)								
59.3	59.8		58.1	56.4	51.0	No linear change	Not available§	No change
QN65: Percentage of students who used birth control pills before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
18.9	24.3		16.0	22.9	23.7	No linear change	Not available	No change
QNIUDIMP: Percentage of students who used an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			3.5	4.6	3.9	No linear change	Not available	No change
QNSHPARG: Percentage of students who used a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active))								
			4.8	5.6	6.7	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNOTHHPL: Percentage of students who used birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			24.4	33.0	34.3	Increased, 2013-2017	Not available[§]	No change
QNDUALBC: Percentage of students who used both a condom during last sexual intercourse and birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			9.5	12.7	12.0	No linear change	Not available	No change
QNBCNONE: Percentage of students who did not use any method to prevent pregnancy during last sexual intercourse (among students who were currently sexually active)								
10.9	8.4		16.2	12.1	12.7	Increased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QNOWT: Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]

2007	2009	2011	2013	2015	2017	Linear Change	Quadratic Change	Change from 2015-2017
14.2	14.3		15.5	13.3	15.7	No linear change	Not available[¶]	No change

QNOBESE: Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]

| 11.9 | 14.3 | | 14.9 | 13.1 | 16.6 | No linear change | Not available | No change |

QN70: Percentage of students who did not drink fruit juice (100% fruit juices one or more times during the 7 days before the survey)

| 22.1 | 26.0 | | 29.2 | 31.3 | 34.3 | Increased, 2007-2017 | Not available | No change |

QN71: Percentage of students who did not eat fruit (one or more times during the 7 days before the survey)

| 13.1 | 13.3 | | 14.3 | 12.8 | 13.8 | No linear change | Not available | No change |

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Overweight and obese 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. In addition, beginning in 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNFR0: Percentage of students who did not eat fruit or drink 100% fruit juices (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
5.4	7.1		7.6	6.6	7.9	No linear change	Not available[§]	No change
QNFR1: Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
56.9	55.9		55.0	53.6	50.5	Decreased, 2007-2017	Not available	No change
QNFR2: Percentage of students who ate fruit or drank 100% fruit juices two or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
29.1	27.8		24.6	24.1	23.1	Decreased, 2007-2017	Not available	No change
QNFR3: Percentage of students who ate fruit or drank 100% fruit juices three or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
18.1	17.8		14.6	13.7	12.4	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN72: Percentage of students who did not eat green salad (one or more times during the 7 days before the survey)								
35.0	37.1		41.5	43.6	45.7	Increased, 2007-2017	Not available[§]	No change
QN73: Percentage of students who did not eat potatoes (one or more times during the 7 days before the survey)								
29.2	29.0		27.9	34.5	33.8	Increased, 2007-2017	Not available	No change
QN74: Percentage of students who did not eat carrots (one or more times during the 7 days before the survey)								
56.7	53.0		54.5	54.8	58.4	No linear change	Not available	No change
QN75: Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey)								
15.7	16.7		21.7	17.7	19.6	Increased, 2007-2017	Not available	No change

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[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNVEG0: Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
6.6	6.7		6.3	6.1	8.4	No linear change	Not available[§]	No change
QNVEG1: Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
59.5	62.5		58.5	58.0	55.4	Decreased, 2007-2017	Not available	No change
QNVEG2: Percentage of students who ate vegetables two or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
24.9	28.5		24.2	21.8	21.9	Decreased, 2007-2017	Not available	No change
QNVEG3: Percentage of students who ate vegetables three or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
11.3	14.3		11.5	10.5	9.6	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN77: Percentage of students who did not drink milk (during the 7 days before the survey)								
18.3	16.7		18.1	20.8	26.0	Increased, 2007-2017	Not available§	Increased
QNMILK1: Percentage of students who drank one or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
43.4	44.5		38.0	36.0	28.8	Decreased, 2007-2017	Not available	Decreased
QNMILK2: Percentage of students who drank two or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
28.5	29.9		23.7	22.1	16.2	Decreased, 2007-2017	Not available	Decreased
QNMILK3: Percentage of students who drank three or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the survey)								
14.3	15.8		11.3	10.4	6.8	Decreased, 2007-2017	Not available	Decreased

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†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN78: Percentage of students who did not eat breakfast (during the 7 days before the survey)								
			14.2	15.5	14.6	No linear change	Not available[§]	No change
QNBK7DAY: Percentage of students who ate breakfast on all 7 days (during the 7 days before the survey)								
			35.6	30.9	32.2	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Physical Activity

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN79: Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			45.4	45.7	46.2	No linear change	Not available[§]	No change
QNPA0DAY: Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			17.1	16.4	16.7	No linear change	Not available	No change
QNPA7DAY: Percentage of students who were physically active at least 60 minutes per day on all 7 days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			27.2	26.0	28.6	No linear change	Not available	No change
QN80: Percentage of students who watched television 3 or more hours per day (on an average school day)								
29.6	32.4		25.6	21.2	21.1	Decreased, 2007-2017	Not available	No change

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[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Physical Activity

		Health Risk Behavior and Percentages				**Linear Change**[*]	**Quadratic Change**[*]	**Change from 2015-2017** [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN81: Percentage of students who played video or computer games or used a computer 3 or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work, on an average school day)								
21.5	22.9		32.7	37.4	42.3	Increased, 2007-2017	Not available[§]	No change
QN82: Percentage of students who attended physical education (PE) classes on 1 or more days (in an average week when they were in school)								
51.2	44.4		46.1	46.0	49.5	No linear change	Not available	No change
QNDLYPE: Percentage of students who attended physical education (PE) classes on all 5 days (in an average week when they were in school)								
24.1	33.1		30.9	23.0	28.6	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Other**

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN86: Percentage of students who saw a dentist (for a check-up, exam, teeth cleaning, or other dental work, during the 12 months before the survey)								
				69.2	69.9	No linear change	Not available[§]	No change
QNNODNT: Percentage of students who never saw a dentist (for a check-up, exam, teeth cleaning, or other dental work)								
				2.8	2.3	No linear change	Not available	No change
QN87: Percentage of students who had ever been told by a doctor or nurse that they had asthma								
20.8	20.6		24.1	22.0	26.7	Increased, 2007-2017	Not available	Increased
QN88: Percentage of students who got 8 or more hours of sleep (on an average school night)								
				27.4	20.3	Decreased, 2015-2017	Not available	Decreased

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Site-Added**

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN90: Percentage of students who rarely or never wore a bicycle helmet (during the 12 months before the survey, among students who had ridden a bicycle)								
84.8	81.3		86.7	85.7	83.4	No linear change	Not available[§]	No change
QN91: Percentage of students who rarely or never wear a seat belt when driving (among students who drive a car)								
			10.6	7.0	8.9	No linear change	Not available	No change
QN92: Percentage of students who talked on a cell phone while driving (on at least 1 day during the 30 days before the survey, among students who drove a car or other vehicle)								
			54.2	48.6	53.1	No linear change	Not available	No change
QN94: Percentage of students who were injured in a physical fight (one or more times during the 12 months before the survey; injuries had to be treated by a doctor or nurse)								
5.1	3.8		9.3	6.3	4.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Site-Added**

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN97: Percentage of students who tried to quit smoking cigarettes (among students who smoked cigarettes during the 12 months before the survey)								
			49.3	50.8		No linear change	Not available§	No change
QN100: Percentage of students who ever tried smoking cigars, cigarillos, or little cigars (even one or two puffs)								
			23.8	24.7	16.3	Decreased, 2013-2017	Not available	Decreased
QN101: Percentage of students who have ever participated in a program to help them quit using tobacco (among students who have used tobacco)								
			11.5	14.1	9.3	No linear change	Not available	No change
QN102: Percentage of students who responded that their school has special groups or classes for students who want to quit using tobacco								
			4.0	2.8	4.1	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

**Total
Site-Added**

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN103: Percentage of students who saw or heard ads about the dangers of cigarette smoking (on TV, the Internet or on the radio, on at least 1 day during the 30 days before the survey)								
				78.7	77.8	No linear change	Not available[§]	No change
QN104: Percentage of students who sometimes, most of the time, or always see ads for tobacco products when they use the Internet								
				32.9	40.4	Increased, 2015-2017	Not available	Increased
QN105: Percentage of students who live with someone that smokes cigarettes								
			41.4	36.5	38.1	No linear change	Not available	No change
QN106: Percentage of students who were at home when someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				28.7	30.9	No linear change	Not available	No change
QN107: Percentage of students who rode in a vehicle where someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				32.3	36.6	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Total
Site-Added

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	2009	2011	2013	2015	2017			
QN108: Percentage of students who breathed the smoke from someone who was smoking tobacco products in indoor or outdoor public places (such as school buildings, stores, restaurants, stadiums, school grounds, parking lots, and parks, on at least one day during the 7 days before the survey)								
				48.6	50.6	No linear change	Not available§	No change
QN109: Percentage of students who breathed the smoke from someone who was smoking tobacco products in the place where they worked (on at least one day during the 7 days before the survey, among students who worked during the 7 days before the survey)								
				21.1	27.1	No linear change	Not available	Increased
QN110: Percentage of students who participated in any community activities to educate the public about the dangers of secondhand smoke (during the 12 months before the survey)								
			8.6	6.4	6.6	No linear change	Not available	No change
QN111: Percentage of students who live in a home where smoking tobacco products is never allowed								
				75.2	73.2	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Site-Added**

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN112: Percentage of students who ride in or drive family vehicles in which smoking tobacco products is never allowed								
				69.2	66.5	No linear change	Not available[§]	No change
QN113: Percentage of students who think people should never allow smoking inside their home								
				80.1	80.7	No linear change	Not available	No change
QN114: Percentage of students who think people should never allow smoking in their vehicles								
				76.1	76.4	No linear change	Not available	No change
QN115: Percentage of students who think employers should never allow smoking in indoor areas in places where people work								
				86.0	87.7	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Site-Added**

		Health Risk Behavior and Percentages				Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN117: Percentage of students who did exercises to strengthen or tone their muscles on three or more days (such as push-ups, sit-ups, or weight lifting, during the 7 days before the survey)								
			50.4	51.2	47.6	No linear change	Not available§	No change
QN118: Percentage of students who had been told by a doctor or nurse that they had asthma and who still have asthma								
11.6	11.6		12.1	11.1	13.2	No linear change	Not available	No change
QN119: Percentage of students who have ever been taught by a nurse or doctor how to take care of or manage their asthma (among students who have ever had asthma)								
			53.8	53.0	56.6	No linear change	Not available	No change
QN120: Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not counting getting a spray-on tan], one or more times during the 12 months before the survey)								
			13.3	13.0		No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Total
Site-Added**

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN122: Percentage of students who ate dinner at home with at least one of their parents on four or more days (during the 7 days before the survey)								
				61.9	58.5	Decreased, 2015-2017	Not available[§]	No change
QN123: Percentage of students who strongly agree or agree that their teachers really care about them and give them a lot of encouragement								
				59.2	62.0	No linear change	Not available	No change
QN124: Percentage of students who most of the time or always get the kind of help they need (among students who report having felt sad, empty, hopeless, angry, or anxious)								
				26.0	26.0	No linear change	Not available	No change
QN125: Percentage of students who participate in school activities one or more hours (such as sports, band, drama, or clubs, during an average week when they are in school)								
				67.8	65.5	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN8: Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else)								
13.8	15.1		13.5	11.9	12.0	Decreased, 2007-2017	Not available[§]	No change
QN9: Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)								
25.5	25.6		19.2	19.9	16.6	Decreased, 2007-2017	Not available	No change
QN10: Percentage of students who drove a car or other vehicle when they had been drinking alcohol (one or more times during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			10.8	7.7	6.6	No linear change	Not available	No change
QN11: Percentage of students who texted or e-mailed while driving a car or other vehicle (on at least 1 day during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			46.5	46.7	44.5	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN12: Percentage of students who carried a weapon (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
29.4	25.7		33.2	33.8	27.8	No linear change	Not available[§]	No change
QN13: Percentage of students who carried a weapon on school property (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
				9.1	5.5	Decreased, 2015-2017	Not available	Decreased
QN15: Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school (on at least 1 day during the 30 days before the survey)								
				8.0	7.3	No linear change	Not available	No change
QN19: Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)								
6.6	4.4		5.2	4.7	7.1	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN22: Percentage of students who experienced physical dating violence (being physically hurt on purpose by someone they were dating or going out with [counting such things as being hit, slammed into something, or injured with an object or weapon] one or more times during the 12 months before the survey, among students who dated or went out with someone during the 12 months before the survey)								
			7.4	12.9	8.8	No linear change	Not available[§]	No change
QN23: Percentage of students who were bullied on school property (ever during the 12 months before the survey)								
	21.2		20.0	19.6	19.5	No linear change	Not available	No change
QN24: Percentage of students who were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey)								
			11.7	14.8		No linear change	Not available	No change
QN25: Percentage of students who felt sad or hopeless (almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)								
17.5	21.3		16.7	23.6	24.2	Increased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Injury and Violence

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN26: Percentage of students who seriously considered attempting suicide (ever during the 12 months before the survey)								
10.5	10.6		10.1	13.2	17.5	Increased, 2007-2017	Not available§	No change
QN27: Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)								
7.4	8.6		7.5	11.0	14.2	Increased, 2007-2017	Not available	Increased
QN28: Percentage of students who attempted suicide (one or more times during the 12 months before the survey)								
5.1	5.0		5.4	9.2	8.3	Increased, 2007-2017	Not available	No change
QN29: Percentage of students who had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)								
1.2	1.6		1.0	3.1	3.2	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Tobacco Use

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN30: Percentage of students who ever tried cigarette smoking (even one or two puffs)								
50.2	46.8		42.0	37.9	27.2	Decreased, 2007-2017	Not available§	Decreased
QN32: Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)								
24.3	18.8		16.1	13.7	10.2	Decreased, 2007-2017	Not available	No change
QNFRCIG: Percentage of students who currently smoked cigarettes frequently (on 20 or more days during the 30 days before the survey)								
11.0	7.0		5.7	5.7	2.9	Decreased, 2007-2017	Not available	No change
QNDAYCIG: Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)								
8.9	6.3		4.4	4.4	2.2	Decreased, 2007-2017	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN34: Percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo])								
				46.7	40.4	No linear change	Not available[§]	No change
QN35: Percentage of students who currently used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey)								
				27.7	13.6	Decreased, 2015-2017	Not available	Decreased
QN38: Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey)								
19.7	16.3		17.0	17.1	11.4	Decreased, 2007-2017	Not available	Decreased
QNTB2: Percentage of students who currently smoked cigarettes or cigars (on at least 1 day during the 30 days before the survey)								
29.7	25.3		23.6	22.8	15.9	Decreased, 2007-2017	Not available	Decreased

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Alcohol and Other Drug Use

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	2009	2011	2013	2015	2017			
QN41: Percentage of students who had their first drink of alcohol before age 13 years (other than a few sips)								
22.9	25.8		22.6	20.5	19.9	Decreased, 2007-2017	Not available§	No change
QN42: Percentage of students who currently drank alcohol (at least one drink of alcohol, on at least 1 day during the 30 days before the survey)								
44.4	39.5		33.8	34.8	27.5	Decreased, 2007-2017	Not available	Decreased
QN43: Percentage of students who usually got the alcohol they drank by someone giving it to them (during the 30 days before the survey, among students who currently drank alcohol)								
30.6	36.5		28.8	35.4	36.6	No linear change	Not available	No change
QN48: Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)								
20.4	22.7		23.7	20.0	19.8	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN59: Percentage of students who ever had sexual intercourse								
50.9	50.2		45.4	41.2	41.2	Decreased, 2007-2017	Not available§	No change
QN60: Percentage of students who had sexual intercourse for the first time before age 13 years								
9.7	7.9		5.4	5.3	3.6	Decreased, 2007-2017	Not available	No change
QN62: Percentage of students who were currently sexually active (had sexual intercourse with at least one person, during the 3 months before the survey)								
37.2	34.9		32.9	29.2	28.9	Decreased, 2007-2017	Not available	No change
QN63: Percentage of students who drank alcohol or used drugs before last sexual intercourse (among students who were currently sexually active)								
27.8	27.3		23.5	22.4	17.0	Decreased, 2007-2017	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN64: Percentage of students who used a condom during last sexual intercourse (among students who were currently sexually active)								
65.8	68.7		64.3	59.8	53.0	Decreased, 2007-2017	Not available[§]	No change
QN65: Percentage of students who used birth control pills before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
13.9	21.7		14.5	18.8	18.9	No linear change	Not available	No change
QNIUDIMP: Percentage of students who used an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			1.8	4.1	1.3	No linear change	Not available	No change
QNSHPARG: Percentage of students who used a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active))								
			1.7	2.5	6.1	Increased, 2013-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNOTHHPL: Percentage of students who used birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			18.1	25.4	26.3	No linear change	Not available[§]	No change
QNDUALBC: Percentage of students who used both a condom during last sexual intercourse and birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			9.1	10.9	7.6	No linear change	Not available	No change
QNBCNONE: Percentage of students who did not use any method to prevent pregnancy during last sexual intercourse (among students who were currently sexually active)								
11.3	8.0		13.5	13.0	9.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNOWT: Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]								
14.9	14.7		14.7	14.3	15.2	No linear change	Not available[¶]	No change
QNOBESE: Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]								
15.3	18.2		18.5	15.9	18.9	No linear change	Not available	No change
QN70: Percentage of students who did not drink fruit juice (100% fruit juices one or more times during the 7 days before the survey)								
21.8	27.1		27.6	28.1	30.0	Increased, 2007-2017	Not available	No change
QN71: Percentage of students who did not eat fruit (one or more times during the 7 days before the survey)								
13.0	15.5		16.0	14.3	15.7	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Overweight and obese 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. In addition, beginning
in 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNFR0: Percentage of students who did not eat fruit or drink 100% fruit juices (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
5.1	8.6		8.5	7.4	8.4	No linear change	Not available[§]	No change
QNFR1: Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
57.0	54.0		57.2	55.1	53.9	No linear change	Not available	No change
QNFR2: Percentage of students who ate fruit or drank 100% fruit juices two or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
31.4	26.7		26.7	24.8	23.4	Decreased, 2007-2017	Not available	No change
QNFR3: Percentage of students who ate fruit or drank 100% fruit juices three or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
20.8	18.2		16.2	15.4	13.3	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Weight Management and Dietary Behaviors

	Health Risk Behavior and Percentages					Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN72: Percentage of students who did not eat green salad (one or more times during the 7 days before the survey)								
42.3	41.7		45.0	48.5	51.0	Increased, 2007-2017	Not available§	No change
QN73: Percentage of students who did not eat potatoes (one or more times during the 7 days before the survey)								
27.1	26.7		25.2	32.6	33.4	Increased, 2007-2017	Not available	No change
QN74: Percentage of students who did not eat carrots (one or more times during the 7 days before the survey)								
56.7	52.9		51.7	52.8	57.1	No linear change	Not available	No change
QN75: Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey)								
16.8	19.6		21.6	18.9	21.8	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNVEG0: Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
7.9	8.6		6.1	6.8	9.0	No linear change	Not available[§]	No change
QNVEG1: Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
57.5	60.7		60.9	60.2	55.8	No linear change	Not available	No change
QNVEG2: Percentage of students who ate vegetables two or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
25.0	29.6		24.2	23.5	23.5	Decreased, 2007-2017	Not available	No change
QNVEG3: Percentage of students who ate vegetables three or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
10.8	16.3		10.7	12.1	11.0	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN77: Percentage of students who did not drink milk (during the 7 days before the survey)								
12.2	14.0		13.8	14.8	20.9	Increased, 2007-2017	Not available[§]	Increased
QNMILK1: Percentage of students who drank one or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
51.7	52.1		45.2	44.8	35.1	Decreased, 2007-2017	Not available	Decreased
QNMILK2: Percentage of students who drank two or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
36.2	37.3		29.8	29.0	20.3	Decreased, 2007-2017	Not available	Decreased
QNMILK3: Percentage of students who drank three or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the survey)								
19.2	20.2		16.0	13.8	8.5	Decreased, 2007-2017	Not available	Decreased

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN78: Percentage of students who did not eat breakfast (during the 7 days before the survey)								
			15.5	15.6	17.9	No linear change	Not available[§]	No change
QNBK7DAY: Percentage of students who ate breakfast on all 7 days (during the 7 days before the survey)								
			36.9	31.7	30.6	Decreased, 2013-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey

10-year Trend Analysis Report

Male
Physical Activity

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN79: Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			54.2	51.9	52.7	No linear change	Not available[§]	No change
QNPA0DAY: Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			14.2	13.5	15.5	No linear change	Not available	No change
QNPA7DAY: Percentage of students who were physically active at least 60 minutes per day on all 7 days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			36.2	33.5	35.5	No linear change	Not available	No change
QN80: Percentage of students who watched television 3 or more hours per day (on an average school day)								
30.1	35.0		26.8	18.1	20.0	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Physical Activity

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN81: Percentage of students who played video or computer games or used a computer 3 or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work, on an average school day)								
25.2	29.1		33.5	37.1	41.8	Increased, 2007-2017	Not available[§]	No change
QN82: Percentage of students who attended physical education (PE) classes on 1 or more days (in an average week when they were in school)								
60.6	54.8		53.5	55.6	56.4	No linear change	Not available	No change
QNDLYPE: Percentage of students who attended physical education (PE) classes on all 5 days (in an average week when they were in school)								
30.6	40.4		37.0	28.2	32.3	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Other

	Health Risk Behavior and Percentages					Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN86: Percentage of students who saw a dentist (for a check-up, exam, teeth cleaning, or other dental work, during the 12 months before the survey)								
				65.4	67.5	No linear change	Not available§	No change
QNNODNT: Percentage of students who never saw a dentist (for a check-up, exam, teeth cleaning, or other dental work)								
				3.8	2.5	No linear change	Not available	No change
QN87: Percentage of students who had ever been told by a doctor or nurse that they had asthma								
20.6	21.6		21.5	23.5	27.7	Increased, 2007-2017	Not available	No change
QN88: Percentage of students who got 8 or more hours of sleep (on an average school night)								
				29.4	20.2	Decreased, 2015-2017	Not available	Decreased

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†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

	Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN90: Percentage of students who rarely or never wore a bicycle helmet (during the 12 months before the survey, among students who had ridden a bicycle)

| 84.6 | 83.8 | | 86.8 | 88.1 | 85.3 | No linear change | Not available[§] | No change |

QN91: Percentage of students who rarely or never wear a seat belt when driving (among students who drive a car)

| | | | 13.3 | 10.2 | 12.1 | No linear change | Not available | No change |

QN92: Percentage of students who talked on a cell phone while driving (on at least 1 day during the 30 days before the survey, among students who drove a car or other vehicle)

| | | | 56.4 | 47.5 | 50.3 | No linear change | Not available | No change |

QN94: Percentage of students who were injured in a physical fight (one or more times during the 12 months before the survey; injuries had to be treated by a doctor or nurse)

| 5.4 | 4.6 | | 11.2 | 8.7 | 6.3 | Increased, 2007-2017 | Not available | No change |

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	2009	2011	2013	2015	2017			
QN97: Percentage of students who tried to quit smoking cigarettes (among students who smoked cigarettes during the 12 months before the survey)								
			46.1	46.8		No linear change	Not available[§]	No change
QN100: Percentage of students who ever tried smoking cigars, cigarillos, or little cigars (even one or two puffs)								
			30.1	31.1	19.4	Decreased, 2013-2017	Not available	Decreased
QN101: Percentage of students who have ever participated in a program to help them quit using tobacco (among students who have used tobacco)								
			14.3	16.4	10.4	No linear change	Not available	No change
QN102: Percentage of students who responded that their school has special groups or classes for students who want to quit using tobacco								
			4.8	3.9	5.6	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

		Health Risk Behavior and Percentages				Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN103: Percentage of students who saw or heard ads about the dangers of cigarette smoking (on TV, the Internet or on the radio, on at least 1 day during the 30 days before the survey)								
				76.3	75.3	No linear change	Not available[§]	No change
QN104: Percentage of students who sometimes, most of the time, or always see ads for tobacco products when they use the Internet								
				32.0	38.6	Increased, 2015-2017	Not available	Increased
QN105: Percentage of students who live with someone that smokes cigarettes								
			40.1	39.3	36.3	No linear change	Not available	No change
QN106: Percentage of students who were at home when someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				32.1	29.4	No linear change	Not available	No change
QN107: Percentage of students who rode in a vehicle where someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				32.0	33.6	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN108: Percentage of students who breathed the smoke from someone who was smoking tobacco products in indoor or outdoor public places (such as school buildings, stores, restaurants, stadiums, school grounds, parking lots, and parks, on at least one day during the 7 days before the survey)								
				45.4	43.2	No linear change	Not available[§]	No change
QN109: Percentage of students who breathed the smoke from someone who was smoking tobacco products in the place where they worked (on at least one day during the 7 days before the survey, among students who worked during the 7 days before the survey)								
				27.0	29.1	No linear change	Not available	No change
QN110: Percentage of students who participated in any community activities to educate the public about the dangers of secondhand smoke (during the 12 months before the survey)								
			8.5	7.9	7.5	No linear change	Not available	No change
QN111: Percentage of students who live in a home where smoking tobacco products is never allowed								
				72.5	73.0	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN112: Percentage of students who ride in or drive family vehicles in which smoking tobacco products is never allowed								
				67.0	68.1	No linear change	Not available[§]	No change
QN113: Percentage of students who think people should never allow smoking inside their home								
				75.0	76.4	No linear change	Not available	No change
QN114: Percentage of students who think people should never allow smoking in their vehicles								
				71.6	73.8	No linear change	Not available	No change
QN115: Percentage of students who think employers should never allow smoking in indoor areas in places where people work								
				82.1	85.6	No linear change	Not available	Increased

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN117: Percentage of students who did exercises to strengthen or tone their muscles on three or more days (such as push-ups, sit-ups, or weight lifting, during the 7 days before the survey)								
			57.7	59.3	55.0	No linear change	Not available[§]	No change
QN118: Percentage of students who had been told by a doctor or nurse that they had asthma and who still have asthma								
9.9	10.4		7.9	9.9	11.2	No linear change	Not available	No change
QN119: Percentage of students who have ever been taught by a nurse or doctor how to take care of or manage their asthma (among students who have ever had asthma)								
			47.3	49.9	48.3	No linear change	Not available	No change
QN120: Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not counting getting a spray-on tan], one or more times during the 12 months before the survey)								
				8.2	8.1	No linear change	Not available	No change

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†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Male
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN122: Percentage of students who ate dinner at home with at least one of their parents on four or more days (during the 7 days before the survey)								
				60.6	58.9	No linear change	Not available[§]	No change
QN123: Percentage of students who strongly agree or agree that their teachers really care about them and give them a lot of encouragement								
				56.0	65.3	Increased, 2015-2017	Not available	Increased
QN124: Percentage of students who most of the time or always get the kind of help they need (among students who report having felt sad, empty, hopeless, angry, or anxious)								
				22.8	20.9	No linear change	Not available	No change
QN125: Percentage of students who participate in school activities one or more hours (such as sports, band, drama, or clubs, during an average week when they are in school)								
				64.4	64.1	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN8: Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else)								
9.8	8.6		9.0	4.4	5.9	Decreased, 2007-2017	Not available[§]	No change
QN9: Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)								
29.7	23.4		19.4	16.8	14.7	Decreased, 2007-2017	Not available	No change
QN10: Percentage of students who drove a car or other vehicle when they had been drinking alcohol (one or more times during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			6.7	5.8	3.6	No linear change	Not available	No change
QN11: Percentage of students who texted or e-mailed while driving a car or other vehicle (on at least 1 day during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			44.9	47.5	47.7	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey

10-year Trend Analysis Report

Female
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN12: Percentage of students who carried a weapon (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
7.5	5.9		10.6	10.8	11.5	Increased, 2007-2017	Not available[§]	No change
QN13: Percentage of students who carried a weapon on school property (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
				2.9	2.6	No linear change	Not available	No change
QN15: Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school (on at least 1 day during the 30 days before the survey)								
				4.1	4.7	No linear change	Not available	No change
QN19: Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)								
14.0	12.0		15.4	11.9	13.3	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Injury and Violence

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN22: Percentage of students who experienced physical dating violence (being physically hurt on purpose by someone they were dating or going out with [counting such things as being hit, slammed into something, or injured with an object or weapon] one or more times during the 12 months before the survey, among students who dated or went out with someone during the 12 months before the survey)								
			11.6	10.2	11.4	No linear change	Not available[§]	No change
QN23: Percentage of students who were bullied on school property (ever during the 12 months before the survey)								
	24.5		30.4	22.9	27.0	No linear change	Not available	No change
QN24: Percentage of students who were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey)								
				21.4	23.8	No linear change	Not available	No change
QN25: Percentage of students who felt sad or hopeless (almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)								
29.5	33.2		38.4	31.3	38.3	Increased, 2007-2017	Not available	Increased

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	2009	2011	2013	2015	2017			
QN26: Percentage of students who seriously considered attempting suicide (ever during the 12 months before the survey)								
19.4	20.6		18.6	18.9	24.1	No linear change	Not available[§]	Increased
QN27: Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)								
12.9	14.2		16.4	15.8	16.6	No linear change	Not available	No change
QN28: Percentage of students who attempted suicide (one or more times during the 12 months before the survey)								
10.7	7.9		8.0	10.3	8.4	No linear change	Not available	No change
QN29: Percentage of students who had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)								
2.9	3.3		2.8	3.2	2.6	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN30: Percentage of students who ever tried cigarette smoking (even one or two puffs)								
51.3	46.0		36.0	31.3	30.0	Decreased, 2007-2017	Not available[§]	No change
QN32: Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)								
23.2	19.1		13.2	8.1	8.1	Decreased, 2007-2017	Not available	No change
QNFRCIG: Percentage of students who currently smoked cigarettes frequently (on 20 or more days during the 30 days before the survey)								
11.8	6.6		5.4	2.8	2.4	Decreased, 2007-2017	Not available	No change
QNDAYCIG: Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)								
8.7	4.8		3.4	1.8	1.8	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN34: Percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo])								
				35.0	39.5	No linear change	Not available[§]	No change
QN35: Percentage of students who currently used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey)								
				16.5	7.9	Decreased, 2015-2017	Not available	Decreased
QN38: Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey)								
10.0	10.5		9.3	7.1	6.8	Decreased, 2007-2017	Not available	No change
QNTB2: Percentage of students who currently smoked cigarettes or cigars (on at least 1 day during the 30 days before the survey)								
26.1	23.0		17.7	12.2	10.4	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Alcohol and Other Drug Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN41: Percentage of students who had their first drink of alcohol before age 13 years (other than a few sips)								
18.6	14.7		16.2	14.2	16.9	No linear change	Not available[§]	No change
QN42: Percentage of students who currently drank alcohol (at least one drink of alcohol, on at least 1 day during the 30 days before the survey)								
44.1	39.1		37.4	34.3	36.1	Decreased, 2007-2017	Not available	No change
QN43: Percentage of students who usually got the alcohol they drank by someone giving it to them (during the 30 days before the survey, among students who currently drank alcohol)								
44.9	45.9		39.2	44.2	47.6	No linear change	Not available	No change
QN48: Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)								
17.4	18.4		17.0	12.6	19.5	No linear change	Not available	Increased

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN59: Percentage of students who ever had sexual intercourse								
53.1	47.3		40.7	35.1	42.4	Decreased, 2007-2017	Not available[§]	No change
QN60: Percentage of students who had sexual intercourse for the first time before age 13 years								
3.2	3.4		2.4	2.9	1.2	Decreased, 2007-2017	Not available	No change
QN62: Percentage of students who were currently sexually active (had sexual intercourse with at least one person, during the 3 months before the survey)								
43.7	36.3		31.9	26.1	35.6	Decreased, 2007-2017	Not available	Increased
QN63: Percentage of students who drank alcohol or used drugs before last sexual intercourse (among students who were currently sexually active)								
16.8	19.4		17.9	18.0	14.3	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	2009	2011	2013	2015	2017			
QN64: Percentage of students who used a condom during last sexual intercourse (among students who were currently sexually active)								
53.8	51.1		51.8	53.5	49.5	No linear change	Not available§	No change
QN65: Percentage of students who used birth control pills before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
23.2	27.0		17.6	27.1	27.4	No linear change	Not available	No change
QNIUDIMP: Percentage of students who used an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			5.2	4.9	5.9	No linear change	Not available	No change
QNSHPARG: Percentage of students who used a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active))								
			7.9	8.7	7.2	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
†Based on t-test analysis, $p < 0.05$.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNOTHHPL: Percentage of students who used birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			30.8	40.7	40.5	No linear change	Not available[§]	No change
QNDUALBC: Percentage of students who used both a condom during last sexual intercourse and birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			10.0	14.7	15.4	No linear change	Not available	No change
QNBCNONE: Percentage of students who did not use any method to prevent pregnancy during last sexual intercourse (among students who were currently sexually active)								
10.4	8.7		18.9	10.5	14.9	Increased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNOWT: Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]								
13.4	13.8		16.3	12.4	16.2	No linear change	Not available[¶]	No change
QNOBESE: Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]								
8.5	10.4		11.1	10.3	14.4	Increased, 2007-2017	Not available	No change
QN70: Percentage of students who did not drink fruit juice (100% fruit juices one or more times during the 7 days before the survey)								
22.6	25.0		31.3	34.3	38.8	Increased, 2007-2017	Not available	No change
QN71: Percentage of students who did not eat fruit (one or more times during the 7 days before the survey)								
13.3	11.0		12.2	11.3	11.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Overweight and obese 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. In addition, beginning in 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNFR0: Percentage of students who did not eat fruit or drink 100% fruit juices (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
5.8	5.5		6.8	5.7	7.4	No linear change	Not available[§]	No change
QNFR1: Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
56.6	57.9		52.4	52.1	47.0	Decreased, 2007-2017	Not available	No change
QNFR2: Percentage of students who ate fruit or drank 100% fruit juices two or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
26.8	29.0		22.7	23.4	22.6	Decreased, 2007-2017	Not available	No change
QNFR3: Percentage of students who ate fruit or drank 100% fruit juices three or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
15.4	17.2		13.2	12.2	11.1	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN72: Percentage of students who did not eat green salad (one or more times during the 7 days before the survey)								
27.9	32.3		37.6	38.8	40.6	Increased, 2007-2017	Not available[§]	No change
QN73: Percentage of students who did not eat potatoes (one or more times during the 7 days before the survey)								
31.1	31.4		30.6	36.4	34.3	No linear change	Not available	No change
QN74: Percentage of students who did not eat carrots (one or more times during the 7 days before the survey)								
56.9	53.2		57.4	57.2	59.7	No linear change	Not available	No change
QN75: Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey)								
14.6	13.7		21.7	16.1	17.3	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Female
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNVEG0: Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
5.3	4.7		6.3	5.5	7.7	No linear change	Not available[§]	No change
QNVEG1: Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
61.6	64.2		56.3	56.1	54.9	Decreased, 2007-2017	Not available	No change
QNVEG2: Percentage of students who ate vegetables two or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
24.5	27.2		24.2	20.2	20.1	Decreased, 2007-2017	Not available	No change
QNVEG3: Percentage of students who ate vegetables three or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
11.5	12.2		12.4	8.9	7.9	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	2009	2011	2013	2015	2017			
QN77: Percentage of students who did not drink milk (during the 7 days before the survey)								
24.6	19.5		22.8	26.3	30.8	Increased, 2007-2017	Not available[§]	No change
QNMILK1: Percentage of students who drank one or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
34.9	36.7		30.5	28.1	22.5	Decreased, 2007-2017	Not available	No change
QNMILK2: Percentage of students who drank two or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
20.7	22.1		17.7	15.8	12.0	Decreased, 2007-2017	Not available	No change
QNMILK3: Percentage of students who drank three or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the survey)								
9.1	11.3		6.6	7.1	4.9	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Female
Weight Management and Dietary Behaviors

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN78: Percentage of students who did not eat breakfast (during the 7 days before the survey)								
			12.9	15.5	11.3	No linear change	Not available[§]	Decreased
QNBK7DAY: Percentage of students who ate breakfast on all 7 days (during the 7 days before the survey)								
			34.5	30.5	34.2	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Physical Activity

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN79: Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			36.3	40.1	39.7	No linear change	Not available[§]	No change
QNPA0DAY: Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			20.3	18.8	17.8	No linear change	Not available	No change
QNPA7DAY: Percentage of students who were physically active at least 60 minutes per day on all 7 days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)								
			18.0	19.0	21.8	No linear change	Not available	No change
QN80: Percentage of students who watched television 3 or more hours per day (on an average school day)								
29.1	29.8		24.5	23.9	22.0	Decreased, 2007-2017	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Physical Activity

	Health Risk Behavior and Percentages					Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN81: Percentage of students who played video or computer games or used a computer 3 or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work, on an average school day)								
18.0	16.5		31.9	38.3	42.9	Increased, 2007-2017	Not available[§]	No change
QN82: Percentage of students who attended physical education (PE) classes on 1 or more days (in an average week when they were in school)								
41.5	33.4		38.3	36.9	42.6	No linear change	Not available	No change
QNDLYPE: Percentage of students who attended physical education (PE) classes on all 5 days (in an average week when they were in school)								
17.4	25.4		24.4	18.2	24.9	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Other

	Health Risk Behavior and Percentages					Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN86: Percentage of students who saw a dentist (for a check-up, exam, teeth cleaning, or other dental work, during the 12 months before the survey)								
				73.2	72.4	No linear change	Not available§	No change
QNNODNT: Percentage of students who never saw a dentist (for a check-up, exam, teeth cleaning, or other dental work)								
				1.8	2.0	No linear change	Not available	No change
QN87: Percentage of students who had ever been told by a doctor or nurse that they had asthma								
20.9	19.7		26.5	20.6	25.9	Increased, 2007-2017	Not available	No change
QN88: Percentage of students who got 8 or more hours of sleep (on an average school night)								
				25.5	20.4	Decreased, 2015-2017	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN90: Percentage of students who rarely or never wore a bicycle helmet (during the 12 months before the survey, among students who had ridden a bicycle)								
85.4	77.4		86.4	82.9	80.9	No linear change	Not available[§]	No change
QN91: Percentage of students who rarely or never wear a seat belt when driving (among students who drive a car)								
			7.7	3.5	4.9	No linear change	Not available	No change
QN92: Percentage of students who talked on a cell phone while driving (on at least 1 day during the 30 days before the survey, among students who drove a car or other vehicle)								
			51.2	49.5	55.3	No linear change	Not available	No change
QN94: Percentage of students who were injured in a physical fight (one or more times during the 12 months before the survey; injuries had to be treated by a doctor or nurse)								
4.5	3.0		6.9	3.8	2.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN100: Percentage of students who ever tried smoking cigars, cigarillos, or little cigars (even one or two puffs)								
			16.9	18.5	13.2	No linear change	Not available[§]	Decreased
QN101: Percentage of students who have ever participated in a program to help them quit using tobacco (among students who have used tobacco)								
			6.5	10.7	7.6	No linear change	Not available	No change
QN102: Percentage of students who responded that their school has special groups or classes for students who want to quit using tobacco								
			2.7	1.3	2.4	No linear change	Not available	No change
QN103: Percentage of students who saw or heard ads about the dangers of cigarette smoking (on TV, the Internet or on the radio, on at least 1 day during the 30 days before the survey)								
			81.3	80.4		No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN104: Percentage of students who sometimes, most of the time, or always see ads for tobacco products when they use the Internet								
				34.0	42.2	Increased, 2015-2017	Not available[§]	Increased
QN105: Percentage of students who live with someone that smokes cigarettes								
			42.6	33.7	39.9	No linear change	Not available	No change
QN106: Percentage of students who were at home when someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				24.9	31.9	No linear change	Not available	No change
QN107: Percentage of students who rode in a vehicle where someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				32.3	39.1	No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN108: Percentage of students who breathed the smoke from someone who was smoking tobacco products in indoor or outdoor public places (such as school buildings, stores, restaurants, stadiums, school grounds, parking lots, and parks, on at least one day during the 7 days before the survey)

| | | | | 51.5 | 58.0 | No linear change | Not available[§] | Increased |

QN109: Percentage of students who breathed the smoke from someone who was smoking tobacco products in the place where they worked (on at least one day during the 7 days before the survey, among students who worked during the 7 days before the survey)

| | | | | 15.2 | 24.5 | Increased, 2015-2017 | Not available | Increased |

QN110: Percentage of students who participated in any community activities to educate the public about the dangers of secondhand smoke (during the 12 months before the survey)

| | | | 8.7 | 4.7 | 5.3 | No linear change | Not available | No change |

QN111: Percentage of students who live in a home where smoking tobacco products is never allowed

| | | | | 78.0 | 73.6 | No linear change | Not available | No change |

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN112: Percentage of students who ride in or drive family vehicles in which smoking tobacco products is never allowed								
				71.3	65.1	No linear change	Not available[§]	No change
QN113: Percentage of students who think people should never allow smoking inside their home								
				85.4	85.0	No linear change	Not available	No change
QN114: Percentage of students who think people should never allow smoking in their vehicles								
				81.0	79.0	No linear change	Not available	No change
QN115: Percentage of students who think employers should never allow smoking in indoor areas in places where people work								
				89.8	90.1	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN117: Percentage of students who did exercises to strengthen or tone their muscles on three or more days (such as push-ups, sit-ups, or weight lifting, during the 7 days before the survey)								
			43.2	43.8	40.0	No linear change	Not available[§]	No change
QN118: Percentage of students who had been told by a doctor or nurse that they had asthma and who still have asthma								
13.2	12.9		16.3	12.3	15.2	No linear change	Not available	No change
QN119: Percentage of students who have ever been taught by a nurse or doctor how to take care of or manage their asthma (among students who have ever had asthma)								
			60.9	56.1	66.5	No linear change	Not available	No change
QN120: Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not counting getting a spray-on tan], one or more times during the 12 months before the survey)								
				17.8	17.5	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Female
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN122: Percentage of students who ate dinner at home with at least one of their parents on four or more days (during the 7 days before the survey)								
				63.2	58.0	Decreased, 2015-2017	Not available[§]	No change
QN123: Percentage of students who strongly agree or agree that their teachers really care about them and give them a lot of encouragement								
				62.7	58.7	No linear change	Not available	No change
QN124: Percentage of students who most of the time or always get the kind of help they need (among students who report having felt sad, empty, hopeless, angry, or anxious)								
				28.0	30.1	No linear change	Not available	No change
QN125: Percentage of students who participate in school activities one or more hours (such as sports, band, drama, or clubs, during an average week when they are in school)								
				71.0	66.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Injury and Violence

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN8: Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else)								
10.2	9.4		9.8	7.2	7.8	No linear change	Not available[¶]	No change
QN9: Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)								
27.1	24.5		17.4	17.5	14.3	Decreased, 2007-2017	Not available	No change
QN10: Percentage of students who drove a car or other vehicle when they had been drinking alcohol (one or more times during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			8.8	6.5	5.3	Decreased, 2013-2017	Not available	No change
QN11: Percentage of students who texted or e-mailed while driving a car or other vehicle (on at least 1 day during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey)								
			47.3	49.8	46.6	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Injury and Violence

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN12: Percentage of students who carried a weapon (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
17.6	14.9		23.6	23.4	21.8	Increased, 2007-2017	Not available[¶]	No change
QN13: Percentage of students who carried a weapon on school property (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
			5.8	4.3		No linear change	Not available	No change
QN15: Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school (on at least 1 day during the 30 days before the survey)								
			4.6	4.6		No linear change	Not available	No change
QN19: Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)								
10.0	7.3		8.5	7.5	9.8	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

White*
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN22: Percentage of students who experienced physical dating violence (being physically hurt on purpose by someone they were dating or going out with [counting such things as being hit, slammed into something, or injured with an object or weapon] one or more times during the 12 months before the survey, among students who dated or went out with someone during the 12 months before the survey)								
			7.8	10.0	9.9	No linear change	Not available[¶]	No change
QN23: Percentage of students who were bullied on school property (ever during the 12 months before the survey)								
	23.9		26.0	22.1	23.6	No linear change	Not available	No change
QN24: Percentage of students who were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey)								
				17.3	19.9	No linear change	Not available	No change
QN25: Percentage of students who felt sad or hopeless (almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)								
23.0	25.6		25.6	26.4	31.7	Increased, 2007-2017	Not available	Increased

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN26: Percentage of students who seriously considered attempting suicide (ever during the 12 months before the survey)								
14.9	14.2		14.2	16.9	20.4	Increased, 2007-2017	Not available[¶]	No change
QN27: Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)								
10.0	10.3		12.2	13.0	16.1	Increased, 2007-2017	Not available	No change
QN28: Percentage of students who attempted suicide (one or more times during the 12 months before the survey)								
7.4	5.3		6.0	8.9	7.8	No linear change	Not available	No change
QN29: Percentage of students who had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)								
1.9	1.9		1.8	2.9	2.2	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Tobacco Use

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN30: Percentage of students who ever tried cigarette smoking (even one or two puffs)

| 49.3 | 45.5 | | 38.1 | 33.9 | 30.6 | Decreased, 2007-2017 | Not available[¶] | No change |

QN32: Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)

| 25.2 | 19.4 | | 14.4 | 12.0 | 9.9 | Decreased, 2007-2017 | Not available | No change |

QNFRCIG: Percentage of students who currently smoked cigarettes frequently (on 20 or more days during the 30 days before the survey)

| 12.1 | 6.7 | | 5.4 | 4.6 | 2.9 | Decreased, 2007-2017 | Not available | No change |

QNDAYCIG: Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)

| 9.9 | 5.6 | | 3.9 | 3.5 | 2.1 | Decreased, 2007-2017 | Not available | No change |

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Tobacco Use

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN34: Percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo])								
				41.7	40.8	No linear change	Not available[¶]	No change
QN35: Percentage of students who currently used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey)								
				22.2	11.5	Decreased, 2015-2017	Not available	Decreased
QN38: Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey)								
14.2	12.1		11.7	12.2	9.4	Decreased, 2007-2017	Not available	No change
QNTB2: Percentage of students who currently smoked cigarettes or cigars (on at least 1 day during the 30 days before the survey)								
28.5	23.6		19.9	18.1	13.6	Decreased, 2007-2017	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Alcohol and Other Drug Use

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN41: Percentage of students who had their first drink of alcohol before age 13 years (other than a few sips)								
20.0	17.9		18.9	15.3	18.4	No linear change	Not available[¶]	No change
QN42: Percentage of students who currently drank alcohol (at least one drink of alcohol, on at least 1 day during the 30 days before the survey)								
47.0	40.0		36.1	37.0	34.0	Decreased, 2007-2017	Not available	No change
QN43: Percentage of students who usually got the alcohol they drank by someone giving it to them (during the 30 days before the survey, among students who currently drank alcohol)								
37.9	41.4		34.7	39.8	43.1	No linear change	Not available	No change
QN48: Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)								
17.5	18.4		17.9	14.7	19.2	No linear change	Not available	Increased

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Sexual Behaviors

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN59: Percentage of students who ever had sexual intercourse								
48.8	43.9		39.4	37.1	41.9	Decreased, 2007-2017	Not available[¶]	No change
QN60: Percentage of students who had sexual intercourse for the first time before age 13 years								
4.0	2.9		2.2	2.9	1.9	Decreased, 2007-2017	Not available	No change
QN62: Percentage of students who were currently sexually active (had sexual intercourse with at least one person, during the 3 months before the survey)								
38.2	32.4		30.5	27.6	33.0	Decreased, 2007-2017	Not available	No change
QN63: Percentage of students who drank alcohol or used drugs before last sexual intercourse (among students who were currently sexually active)								
23.1	23.7		18.3	20.7	15.6	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN64: Percentage of students who used a condom during last sexual intercourse (among students who were currently sexually active)

| 57.5 | 57.5 | | 56.4 | 56.3 | 51.6 | No linear change | Not available[¶] | No change |

QN65: Percentage of students who used birth control pills before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)

| 22.5 | 30.0 | | 17.9 | 24.4 | 26.4 | No linear change | Not available | No change |

QNIUDIMP: Percentage of students who used an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)

| | | | 2.3 | 4.6 | 4.0 | No linear change | Not available | No change |

QNSHPARG: Percentage of students who used a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active))

| | | | 5.5 | 5.7 | 7.0 | No linear change | Not available | No change |

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNOTHHPL: Percentage of students who used birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			25.8	34.7	37.4	Increased, 2013-2017	Not available[¶]	No change
QNDUALBC: Percentage of students who used both a condom during last sexual intercourse and birth control pills; an IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon); or a shot (such as Depo-Provera), patch (such as OrthoEvra), or birth control ring (such as NuvaRing) before last sexual intercourse (to prevent pregnancy, among students who were currently sexually active)								
			9.2	13.0	14.3	Increased, 2013-2017	Not available	No change
QNBCNONE: Percentage of students who did not use any method to prevent pregnancy during last sexual intercourse (among students who were currently sexually active)								
9.0	6.5		13.7	9.3	10.8	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNOWT: Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[¶]								
13.0	12.4		15.0	12.2	15.5	No linear change	Not available**	No change
QNOBESE: Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[¶]								
10.0	14.1		14.5	12.2	15.6	No linear change	Not available	No change
QN70: Percentage of students who did not drink fruit juice (100% fruit juices one or more times during the 7 days before the survey)								
23.3	26.8		29.8	33.1	35.6	Increased, 2007-2017	Not available	No change
QN71: Percentage of students who did not eat fruit (one or more times during the 7 days before the survey)								
11.3	11.5		14.1	12.5	12.3	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Overweight and obese 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. In addition, beginning in 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.
**Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNFR0: Percentage of students who did not eat fruit or drink 100% fruit juices (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
5.0	6.3		7.4	6.6	7.2	No linear change	Not available[¶]	No change
QNFR1: Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
56.0	55.1		54.2	52.4	49.2	Decreased, 2007-2017	Not available	No change
QNFR2: Percentage of students who ate fruit or drank 100% fruit juices two or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
27.7	25.5		23.1	22.8	22.1	Decreased, 2007-2017	Not available	No change
QNFR3: Percentage of students who ate fruit or drank 100% fruit juices three or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
16.0	15.2		12.5	12.1	10.9	Decreased, 2007-2017	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

White*
Weight Management and Dietary Behaviors

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN72: Percentage of students who did not eat green salad (one or more times during the 7 days before the survey)

| 32.5 | 33.9 | | 40.0 | 40.7 | 44.2 | Increased, 2007-2017 | Not available[¶] | No change |

QN73: Percentage of students who did not eat potatoes (one or more times during the 7 days before the survey)

| 26.1 | 26.6 | | 26.3 | 33.2 | 30.5 | Increased, 2007-2017 | Not available | No change |

QN74: Percentage of students who did not eat carrots (one or more times during the 7 days before the survey)

| 53.2 | 50.0 | | 51.9 | 52.0 | 56.6 | No linear change | Not available | No change |

QN75: Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey)

| 13.5 | 13.9 | | 19.5 | 14.1 | 18.0 | Increased, 2007-2017 | Not available | No change |

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Weight Management and Dietary Behaviors

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNVEG0: Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
4.8	5.0		5.1	4.5	7.3	No linear change	Not available[¶]	No change
QNVEG1: Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
62.7	65.6		60.7	60.7	57.4	Decreased, 2007-2017	Not available	No change
QNVEG2: Percentage of students who ate vegetables two or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
24.7	29.7		24.2	21.3	21.9	Decreased, 2007-2017	Not available	No change
QNVEG3: Percentage of students who ate vegetables three or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
10.3	13.4		10.1	9.7	8.5	Decreased, 2007-2017	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN77: Percentage of students who did not drink milk (during the 7 days before the survey)

| 15.2 | 12.9 | | 15.6 | 17.9 | 22.3 | Increased, 2007-2017 | Not available[¶] | No change |

QNMILK1: Percentage of students who drank one or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the

| 46.6 | 48.1 | | 41.4 | 39.1 | 30.8 | Decreased, 2007-2017 | Not available | Decreased |

QNMILK2: Percentage of students who drank two or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the

| 30.3 | 31.5 | | 25.9 | 24.2 | 17.4 | Decreased, 2007-2017 | Not available | Decreased |

QNMILK3: Percentage of students who drank three or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the survey)

| 14.6 | 16.1 | | 12.2 | 11.2 | 7.5 | Decreased, 2007-2017 | Not available | Decreased |

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

White*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN78: Percentage of students who did not eat breakfast (during the 7 days before the survey)								
			12.8	13.5	13.6	No linear change	Not available[¶]	No change
QNBK7DAY: Percentage of students who ate breakfast on all 7 days (during the 7 days before the survey)								
			36.5	33.9	33.2	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Physical Activity

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN79: Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

| | | | 47.5 | 48.7 | 48.1 | No linear change | Not available[¶] | No change |

QNPA0DAY: Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

| | | | 17.7 | 13.7 | 15.1 | No linear change | Not available | No change |

QNPA7DAY: Percentage of students who were physically active at least 60 minutes per day on all 7 days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

| | | | 28.4 | 27.9 | 29.7 | No linear change | Not available | No change |

QN80: Percentage of students who watched television 3 or more hours per day (on an average school day)

| 22.7 | 26.1 | | 21.8 | 18.8 | 19.4 | Decreased, 2007-2017 | Not available | No change |

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Physical Activity

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN81: Percentage of students who played video or computer games or used a computer 3 or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work, on an average school day)

| 19.3 | 20.7 | | 32.5 | 37.8 | 42.4 | Increased, 2007-2017 | Not available[¶] | No change |

QN82: Percentage of students who attended physical education (PE) classes on 1 or more days (in an average week when they were in school)

| 50.8 | 41.9 | | 45.1 | 44.6 | 48.2 | No linear change | Not available | No change |

QNDLYPE: Percentage of students who attended physical education (PE) classes on all 5 days (in an average week when they were in school)

| 24.9 | 33.3 | | 33.0 | 24.8 | 29.1 | No linear change | Not available | No change |

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Other

Health Risk Behavior and Percentages						Linear Change†	Quadratic Change†	Change from 2015-2017 §
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN86: Percentage of students who saw a dentist (for a check-up, exam, teeth cleaning, or other dental work, during the 12 months before the survey)								
				72.6	72.3	No linear change	Not available¶	No change
QNNODNT: Percentage of students who never saw a dentist (for a check-up, exam, teeth cleaning, or other dental work)								
				2.2	2.3	No linear change	Not available	No change
QN87: Percentage of students who had ever been told by a doctor or nurse that they had asthma								
19.8	18.7		23.3	20.3	25.1	Increased, 2007-2017	Not available	No change
QN88: Percentage of students who got 8 or more hours of sleep (on an average school night)								
				27.2	22.2	Decreased, 2015-2017	Not available	No change

*Non-Hispanic.
†Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
§Based on t-test analysis, p < 0.05.
¶Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN90: Percentage of students who rarely or never wore a bicycle helmet (during the 12 months before the survey, among students who had ridden a bicycle)								
83.3	79.7		86.3	84.5	81.8	No linear change	Not available[¶]	No change
QN91: Percentage of students who rarely or never wear a seat belt when driving (among students who drive a car)								
			9.4	6.2	7.5	No linear change	Not available	No change
QN92: Percentage of students who talked on a cell phone while driving (on at least 1 day during the 30 days before the survey, among students who drove a car or other vehicle)								
			55.4	51.3	56.2	No linear change	Not available	No change
QN94: Percentage of students who were injured in a physical fight (one or more times during the 12 months before the survey; injuries had to be treated by a doctor or nurse)								
3.4	2.4		8.0	5.3	4.0	Increased, 2007-2017	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN97: Percentage of students who tried to quit smoking cigarettes (among students who smoked cigarettes during the 12 months before the survey)								
			48.9	53.1		No linear change	Not available[¶]	No change
QN100: Percentage of students who ever tried smoking cigars, cigarillos, or little cigars (even one or two puffs)								
			24.9	26.0	16.7	Decreased, 2013-2017	Not available	Decreased
QN101: Percentage of students who have ever participated in a program to help them quit using tobacco (among students who have used tobacco)								
			8.3	11.8	6.8	No linear change	Not available	No change
QN102: Percentage of students who responded that their school has special groups or classes for students who want to quit using tobacco								
			3.8	2.1	2.5	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN103: Percentage of students who saw or heard ads about the dangers of cigarette smoking (on TV, the Internet or on the radio, on at least 1 day during the 30 days before the survey)								
				80.0	79.5	No linear change	Not available[¶]	No change
QN104: Percentage of students who sometimes, most of the time, or always see ads for tobacco products when they use the Internet								
				32.6	38.9	No linear change	Not available	No change
QN105: Percentage of students who live with someone that smokes cigarettes								
			40.7	36.8	38.3	No linear change	Not available	No change
QN106: Percentage of students who were at home when someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				28.0	30.9	No linear change	Not available	No change
QN107: Percentage of students who rode in a vehicle where someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				32.2	37.7	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN108: Percentage of students who breathed the smoke from someone who was smoking tobacco products in indoor or outdoor public places (such as school buildings, stores, restaurants, stadiums, school grounds, parking lots, and parks, on at least one day during the 7 days before the survey)								
				50.4	53.1	No linear change	Not available[¶]	No change
QN109: Percentage of students who breathed the smoke from someone who was smoking tobacco products in the place where they worked (on at least one day during the 7 days before the survey, among students who worked during the 7 days before the survey)								
				22.9	25.9	No linear change	Not available	No change
QN110: Percentage of students who participated in any community activities to educate the public about the dangers of secondhand smoke (during the 12 months before the survey)								
			7.9	5.1	5.0	No linear change	Not available	No change
QN111: Percentage of students who live in a home where smoking tobacco products is never allowed								
				76.4	73.2	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN112: Percentage of students who ride in or drive family vehicles in which smoking tobacco products is never allowed								
				69.9	65.0	No linear change	Not available[¶]	No change
QN113: Percentage of students who think people should never allow smoking inside their home								
				80.1	79.7	No linear change	Not available	No change
QN114: Percentage of students who think people should never allow smoking in their vehicles								
				75.3	74.5	No linear change	Not available	No change
QN115: Percentage of students who think employers should never allow smoking in indoor areas in places where people work								
				86.6	87.8	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

	Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN117: Percentage of students who did exercises to strengthen or tone their muscles on three or more days (such as push-ups, sit-ups, or weight lifting, during the 7 days before the survey)

			51.4	53.8	47.5	No linear change	Not available[¶]	No change

QN118: Percentage of students who had been told by a doctor or nurse that they had asthma and who still have asthma

10.5	10.4		11.3	9.8	12.3	No linear change	Not available	No change

QN119: Percentage of students who have ever been taught by a nurse or doctor how to take care of or manage their asthma (among students who have ever had asthma)

			52.7	53.5	57.3	No linear change	Not available	No change

QN120: Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not counting getting a spray-on tan], one or more times during the 12 months before the survey)

				14.0	13.9	No linear change	Not available	No change

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[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

White*
Site-Added

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN122: Percentage of students who ate dinner at home with at least one of their parents on four or more days (during the 7 days before the survey)								
				65.3	60.8	Decreased, 2015-2017	Not available[¶]	No change
QN123: Percentage of students who strongly agree or agree that their teachers really care about them and give them a lot of encouragement								
				61.1	63.4	No linear change	Not available	No change
QN124: Percentage of students who most of the time or always get the kind of help they need (among students who report having felt sad, empty, hopeless, angry, or anxious)								
				28.4	28.2	No linear change	Not available	No change
QN125: Percentage of students who participate in school activities one or more hours (such as sports, band, drama, or clubs, during an average week when they are in school)								
				70.4	67.0	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	2009	2011	2013	2015	2017			
QN8: Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else)								
17.0	21.3		14.6	11.6	13.7	No linear change	Not available[¶]	No change
QN9: Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)								
25.2	26.0		23.7	20.5	19.7	No linear change	Not available	No change
QN12: Percentage of students who carried a weapon (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
19.2	19.1		12.2	14.8	9.8	Decreased, 2007-2017	Not available	No change
QN13: Percentage of students who carried a weapon on school property (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
				3.5	2.5	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Injury and Violence

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN15: Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school (on at least 1 day during the 30 days before the survey)								
				8.4	8.5	No linear change	Not available[¶]	No change
QN19: Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)								
10.4	8.6		16.6	10.1	8.0	No linear change	Not available	No change
QN23: Percentage of students who were bullied on school property (ever during the 12 months before the survey)								
	16.3		18.8	15.2	17.4	No linear change	Not available	No change
QN24: Percentage of students who were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey)								
				13.3	13.5	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Injury and Violence

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN25: Percentage of students who felt sad or hopeless (almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)								
23.3	29.5		30.2	26.8	26.0	No linear change	Not available[¶]	No change
QN26: Percentage of students who seriously considered attempting suicide (ever during the 12 months before the survey)								
12.0	17.1		11.4	11.1	18.7	No linear change	Not available	No change
QN27: Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)								
9.0	12.3		7.4	13.8	8.5	No linear change	Not available	No change
QN28: Percentage of students who attempted suicide (one or more times during the 12 months before the survey)								
9.0	8.5		5.4	12.6	6.9	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Injury and Violence

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN29: Percentage of students who had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
1.5	3.9		0.8	3.1	4.1	No linear change	Not available[¶]	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Tobacco Use

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN30: Percentage of students who ever tried cigarette smoking (even one or two puffs)								
54.6	48.2		41.7	35.7	17.0	Decreased, 2007-2017	Not available[¶]	Decreased
QN32: Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)								
15.0	15.7		11.3	5.9	5.0	Decreased, 2007-2017	Not available	No change
QNFRCIG: Percentage of students who currently smoked cigarettes frequently (on 20 or more days during the 30 days before the survey)								
7.3	5.0		4.3	2.9	1.1	Decreased, 2007-2017	Not available	No change
QNDAYCIG: Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)								
3.7	3.2		3.4	1.8	1.1	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017[§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN34: Percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo])								
				34.3	35.4	No linear change	Not available[¶]	No change
QN35: Percentage of students who currently used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey)								
				19.5	6.2	Decreased, 2015-2017	Not available	Decreased
QN38: Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey)								
16.6	17.2		15.2	10.6	8.1	Decreased, 2007-2017	Not available	No change
QNTB2: Percentage of students who currently smoked cigarettes or cigars (on at least 1 day during the 30 days before the survey)								
24.0	24.6		20.8	14.2	10.9	Decreased, 2007-2017	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Black*
Alcohol and Other Drug Use

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	2009	2011	2013	2015	2017			
QN41: Percentage of students who had their first drink of alcohol before age 13 years (other than a few sips)								
22.4	26.3		16.0	25.8	16.8	No linear change	Not available[¶]	No change
QN42: Percentage of students who currently drank alcohol (at least one drink of alcohol, on at least 1 day during the 30 days before the survey)								
29.8	37.6		29.1	24.9	22.9	Decreased, 2007-2017	Not available	No change
QN48: Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)								
24.3	29.3		28.2	21.3	21.7	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Black*
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	2009	2011	2013	2015	2017			
QN59: Percentage of students who ever had sexual intercourse								
67.4	70.2		60.7	41.8	41.7	Decreased, 2007-2017	Not available[¶]	No change
QN60: Percentage of students who had sexual intercourse for the first time before age 13 years								
16.3	14.5		10.2	8.7	4.3	Decreased, 2007-2017	Not available	No change
QN62: Percentage of students who were currently sexually active (had sexual intercourse with at least one person, during the 3 months before the survey)								
52.2	48.2		40.0	25.9	31.0	Decreased, 2007-2017	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Weight Management and Dietary Behaviors

	Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNOWT: Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[¶]									
18.0	20.6		18.8	17.7	17.6	No linear change	Not available**	No change
QNOBESE: Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[¶]									
20.2	15.5		16.2	17.2	17.6	No linear change	Not available	No change
QN70: Percentage of students who did not drink fruit juice (100% fruit juices one or more times during the 7 days before the survey)									
17.3	23.2		28.6	22.9	29.3	Increased, 2007-2017	Not available	No change
QN71: Percentage of students who did not eat fruit (one or more times during the 7 days before the survey)									
22.0	20.2		12.8	14.6	17.9	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Overweight and obese 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. In addition, beginning in 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.
[**]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QNFR0: Percentage of students who did not eat fruit or drink 100% fruit juices (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
7.3	10.4		8.8	6.6	8.3	No linear change	Not available[¶]	No change
QNFR1: Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
57.8	58.6		59.4	56.4	55.6	No linear change	Not available	No change
QNFR2: Percentage of students who ate fruit or drank 100% fruit juices two or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
32.6	34.1		32.3	27.8	22.4	Decreased, 2007-2017	Not available	No change
QNFR3: Percentage of students who ate fruit or drank 100% fruit juices three or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
25.0	24.9		25.3	21.1	15.7	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN72: Percentage of students who did not eat green salad (one or more times during the 7 days before the survey)								
45.9	50.5		48.5	53.5	50.1	No linear change	Not available[¶]	No change
QN73: Percentage of students who did not eat potatoes (one or more times during the 7 days before the survey)								
42.8	37.8		34.9	38.1	45.5	No linear change	Not available	No change
QN74: Percentage of students who did not eat carrots (one or more times during the 7 days before the survey)								
72.6	67.3		69.5	71.5	70.1	No linear change	Not available	No change
QN75: Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey)								
25.5	27.2		31.1	31.8	27.0	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	2009	2011	2013	2015	2017			
QNVEG0: Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
13.9	13.4		12.1	11.5	9.7	No linear change	Not available[¶]	No change
QNVEG1: Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
44.9	49.0		45.7	48.0	46.3	No linear change	Not available	No change
QNVEG2: Percentage of students who ate vegetables two or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
22.6	21.7		21.3	23.5	15.6	No linear change	Not available	No change
QNVEG3: Percentage of students who ate vegetables three or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)								
14.5	15.4		13.3	15.5	8.6	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Weight Management and Dietary Behaviors

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017[§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN77: Percentage of students who did not drink milk (during the 7 days before the survey)

2007	2009	2011	2013	2015	2017	Linear Change	Quadratic Change	Change from 2015-2017
32.2	33.3		29.8	35.8	41.3	No linear change	Not available[¶]	No change

QNMILK1: Percentage of students who drank one or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the

| 28.5 | 29.6 | | 22.6 | 20.7 | 19.7 | Decreased, 2007-2017 | Not available | No change |

QNMILK2: Percentage of students who drank two or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the

| 18.3 | 22.8 | | 12.2 | 10.9 | 12.0 | Decreased, 2007-2017 | Not available | No change |

QNMILK3: Percentage of students who drank three or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the survey)

| 10.6 | 13.8 | | 6.5 | 6.0 | 5.4 | Decreased, 2007-2017 | Not available | No change |

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	2009	2011	2013	2015	2017			
QN78: Percentage of students who did not eat breakfast (during the 7 days before the survey)								
			19.7	21.3	16.7	No linear change	Not available[¶]	No change
QNBK7DAY: Percentage of students who ate breakfast on all 7 days (during the 7 days before the survey)								
			33.7	18.9	31.3	No linear change	Not available	Increased

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Physical Activity

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN79: Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

			39.3	37.9	39.5	No linear change	Not available[¶]	No change

QNPA0DAY: Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

			13.8	23.7	23.3	No linear change	Not available	No change

QNPA7DAY: Percentage of students who were physically active at least 60 minutes per day on all 7 days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

			24.0	19.5	24.5	No linear change	Not available	No change

QN80: Percentage of students who watched television 3 or more hours per day (on an average school day)

59.1	58.0		43.8	32.3	29.9	Decreased, 2007-2017	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Physical Activity

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN81: Percentage of students who played video or computer games or used a computer 3 or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work, on an average school day)								
29.5	31.2		34.0	37.3	45.7	Increased, 2007-2017	Not available[¶]	No change
QN82: Percentage of students who attended physical education (PE) classes on 1 or more days (in an average week when they were in school)								
50.7	52.8		46.0	50.7	55.0	No linear change	Not available	No change
QNDLYPE: Percentage of students who attended physical education (PE) classes on all 5 days (in an average week when they were in school)								
20.7	30.1		20.6	16.0	25.4	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Other

		Health Risk Behavior and Percentages				Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN86: Percentage of students who saw a dentist (for a check-up, exam, teeth cleaning, or other dental work, during the 12 months before the survey)								
				59.0	63.1	No linear change	Not available[¶]	No change
QNNODNT: Percentage of students who never saw a dentist (for a check-up, exam, teeth cleaning, or other dental work)								
				5.5	1.5	No linear change	Not available	No change
QN87: Percentage of students who had ever been told by a doctor or nurse that they had asthma								
25.4	28.0		28.4	31.0	32.0	Increased, 2007-2017	Not available	No change
QN88: Percentage of students who got 8 or more hours of sleep (on an average school night)								
				27.8	14.1	Decreased, 2015-2017	Not available	Decreased

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN91: Percentage of students who rarely or never wear a seat belt when driving (among students who drive a car)								
			9.8	12.8		No linear change	Not available[¶]	No change
QN94: Percentage of students who were injured in a physical fight (one or more times during the 12 months before the survey; injuries had to be treated by a doctor or nurse)								
10.3	7.9		9.7	9.6	5.2	No linear change	Not available	No change
QN100: Percentage of students who ever tried smoking cigars, cigarillos, or little cigars (even one or two puffs)								
		17.9	18.1	12.6		No linear change	Not available	No change
QN102: Percentage of students who responded that their school has special groups or classes for students who want to quit using tobacco								
		4.1	5.2	7.5		No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN103: Percentage of students who saw or heard ads about the dangers of cigarette smoking (on TV, the Internet or on the radio, on at least 1 day during the 30 days before the survey)								
				73.2	75.6	No linear change	Not available[¶]	No change
QN104: Percentage of students who sometimes, most of the time, or always see ads for tobacco products when they use the Internet								
				35.8	52.0	Increased, 2015-2017	Not available	Increased
QN105: Percentage of students who live with someone that smokes cigarettes								
			44.0	36.7	35.0	No linear change	Not available	No change
QN106: Percentage of students who were at home when someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				31.9	30.9	No linear change	Not available	No change
QN107: Percentage of students who rode in a vehicle where someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				32.3	33.9	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN108: Percentage of students who breathed the smoke from someone who was smoking tobacco products in indoor or outdoor public places (such as school buildings, stores, restaurants, stadiums, school grounds, parking lots, and parks, on at least one day during the 7 days before the survey)								
				43.8	39.5	No linear change	Not available[¶]	No change
QN110: Percentage of students who participated in any community activities to educate the public about the dangers of secondhand smoke (during the 12 months before the survey)								
			11.3	11.0	6.6	No linear change	Not available	No change
QN111: Percentage of students who live in a home where smoking tobacco products is never allowed								
				71.2	73.0	No linear change	Not available	No change
QN112: Percentage of students who ride in or drive family vehicles in which smoking tobacco products is never allowed								
				68.2	71.3	No linear change	Not available	No change

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Site-Added

	Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN113: Percentage of students who think people should never allow smoking inside their home

| | | | | 80.6 | 83.3 | No linear change | Not available[¶] | No change |

QN114: Percentage of students who think people should never allow smoking in their vehicles

| | | | | 80.8 | 81.8 | No linear change | Not available | No change |

QN115: Percentage of students who think employers should never allow smoking in indoor areas in places where people work

| | | | | 84.7 | 89.4 | No linear change | Not available | No change |

QN117: Percentage of students who did exercises to strengthen or tone their muscles on three or more days (such as push-ups, sit-ups, or weight lifting, during the 7 days before the survey)

| | | | 45.4 | 38.8 | 48.1 | No linear change | Not available | Increased |

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Site-Added

	Health Risk Behavior and Percentages					Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN118: Percentage of students who had been told by a doctor or nurse that they had asthma and who still have asthma

| 17.4 | 16.3 | | 18.6 | 18.4 | 19.2 | No linear change | Not available[¶] | No change |

QN120: Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not counting getting a spray-on tan], one or more times during the 12 months before the survey)

| | | | 9.2 | 8.4 | | No linear change | Not available | No change |

QN122: Percentage of students who ate dinner at home with at least one of their parents on four or more days (during the 7 days before the survey)

| | | | 50.7 | 54.2 | | No linear change | Not available | No change |

QN123: Percentage of students who strongly agree or agree that their teachers really care about them and give them a lot of encouragement

| | | | 50.1 | 54.4 | | No linear change | Not available | No change |

[*]Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[§]Based on t-test analysis, $p < 0.05$.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Black*
Site-Added

Health Risk Behavior and Percentages						Linear Change[†]	Quadratic Change[†]	Change from 2015-2017 [§]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN124: Percentage of students who most of the time or always get the kind of help they need (among students who report having felt sad, empty, hopeless, angry, or anxious)								
				19.4	20.8	No linear change	Not available[¶]	No change
QN125: Percentage of students who participate in school activities one or more hours (such as sports, band, drama, or clubs, during an average week when they are in school)								
				59.2	59.9	No linear change	Not available	No change

*Non-Hispanic.
[†]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[§]Based on t-test analysis, p < 0.05.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN8: Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else)								
			23.9	14.1	13.2	Decreased, 2013-2017	Not available[§]	No change
QN9: Percentage of students who rode with a driver who had been drinking alcohol (in a car or other vehicle, one or more times during the 30 days before the survey)								
			35.7	28.6	22.5	Decreased, 2013-2017	Not available	No change
QN12: Percentage of students who carried a weapon (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
			25.1	24.3	19.1	No linear change	Not available	No change
QN13: Percentage of students who carried a weapon on school property (such as a gun, knife, or club, on at least 1 day during the 30 days before the survey)								
				8.0	4.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Injury and Violence

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN15: Percentage of students who did not go to school because they felt unsafe at school or on their way to or from school (on at least 1 day during the 30 days before the survey)								
			11.1	11.0		No linear change	Not available[§]	No change
QN19: Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)								
		16.3	15.9	16.2		No linear change	Not available	No change
QN23: Percentage of students who were bullied on school property (ever during the 12 months before the survey)								
		23.2	25.1	25.5		No linear change	Not available	No change
QN24: Percentage of students who were electronically bullied (counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey)								
			17.0	21.2		No linear change	Not available	No change

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Injury and Violence

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN25: Percentage of students who felt sad or hopeless (almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)								
			42.7	38.0	37.4	No linear change	Not available[§]	No change
QN26: Percentage of students who seriously considered attempting suicide (ever during the 12 months before the survey)								
			23.0	21.2	25.4	No linear change	Not available	No change
QN27: Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)								
			20.0	17.7	19.2	No linear change	Not available	No change
QN28: Percentage of students who attempted suicide (one or more times during the 12 months before the survey)								
			17.8	12.2	10.9	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Injury and Violence

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN29: Percentage of students who had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)

			2013	2015	2017	Linear Change	Quadratic Change	Change from 2015-2017
			3.8	7.2	3.4	No linear change	Not available[§]	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN30: Percentage of students who ever tried cigarette smoking (even one or two puffs)								
			50.7	39.0	30.2	Decreased, 2013-2017	Not available[§]	No change
QN32: Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)								
			21.6	13.3	8.7	No linear change	Not available	No change
QNFRCIG: Percentage of students who currently smoked cigarettes frequently (on 20 or more days during the 30 days before the survey)								
			6.6	4.4	2.6	No linear change	Not available	No change
QNDAYCIG: Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)								
			4.9	3.2	1.9	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Tobacco Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN34: Percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo])								
				44.3	39.2	No linear change	Not available[§]	No change
QN35: Percentage of students who currently used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey)								
				19.7	7.5	Decreased, 2015-2017	Not available	Decreased
QN38: Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey)								
			22.8	13.6	7.0	Decreased, 2013-2017	Not available	No change
QNTB2: Percentage of students who currently smoked cigarettes or cigars (on at least 1 day during the 30 days before the survey)								
			28.3	22.1	11.7	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Alcohol and Other Drug Use

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN41: Percentage of students who had their first drink of alcohol before age 13 years (other than a few sips)								
			37.0	24.0	17.8	Decreased, 2013-2017	Not available[§]	No change
QN42: Percentage of students who currently drank alcohol (at least one drink of alcohol, on at least 1 day during the 30 days before the survey)								
			49.2	34.1	27.0	Decreased, 2013-2017	Not available	No change
QN48: Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)								
			31.6	20.4	17.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Sexual Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN59: Percentage of students who ever had sexual intercourse								
			52.2	40.0	39.8	No linear change	Not available[§]	No change
QN60: Percentage of students who had sexual intercourse for the first time before age 13 years								
			10.0	8.6	6.2	No linear change	Not available	No change
QN62: Percentage of students who were currently sexually active (had sexual intercourse with at least one person, during the 3 months before the survey)								
			41.3	28.2	29.8	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Weight Management and Dietary Behaviors

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QNOWT: Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]

| | | | 15.2 | 20.5 | 17.0 | No linear change | Not available[¶] | No change |

QNOBESE: Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)[§]

| | | | 18.3 | 10.5 | 24.1 | No linear change | Not available | Increased |

QN70: Percentage of students who did not drink fruit juice (100% fruit juices one or more times during the 7 days before the survey)

| | | | 26.3 | 27.0 | 29.0 | No linear change | Not available | No change |

QN71: Percentage of students who did not eat fruit (one or more times during the 7 days before the survey)

| | | | 19.3 | 9.5 | 17.9 | No linear change | Not available | No change |

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Overweight and obese 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. In addition, beginning in 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.
[¶]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Weight Management and Dietary Behaviors

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QNFR0: Percentage of students who did not eat fruit or drink 100% fruit juices (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
			7.8	4.3	12.4	No linear change	Not available[§]	No change
QNFR1: Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
			48.7	61.0	55.8	No linear change	Not available	No change
QNFR2: Percentage of students who ate fruit or drank 100% fruit juices two or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
			23.9	25.2	29.9	No linear change	Not available	No change
QNFR3: Percentage of students who ate fruit or drank 100% fruit juices three or more times per day (such as orange juice, apple juice, or grape juice, during the 7 days before the survey)								
			15.2	17.2	19.0	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN72: Percentage of students who did not eat green salad (one or more times during the 7 days before the survey)								
			43.2	48.5	49.9	No linear change	Not available[§]	No change
QN73: Percentage of students who did not eat potatoes (one or more times during the 7 days before the survey)								
			34.8	39.7	40.9	No linear change	Not available	No change
QN74: Percentage of students who did not eat carrots (one or more times during the 7 days before the survey)								
			61.1	53.3	55.9	No linear change	Not available	No change
QN75: Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey)								
			24.8	22.2	24.4	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	2009	2011	2013	2015	2017			

QNVEG0: Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)

| | | | 8.8 | 9.8 | 18.4 | No linear change | Not available§ | No change |

QNVEG1: Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)

| | | | 53.0 | 53.6 | 54.0 | No linear change | Not available | No change |

QNVEG2: Percentage of students who ate vegetables two or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)

| | | | 23.6 | 18.8 | 25.9 | No linear change | Not available | No change |

QNVEG3: Percentage of students who ate vegetables three or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)

| | | | 16.5 | 7.8 | 14.3 | No linear change | Not available | No change |

*Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
†Based on t-test analysis, p < 0.05.
§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN77: Percentage of students who did not drink milk (during the 7 days before the survey)								
			22.0	21.6	28.3	No linear change	Not available[§]	No change
QNMILK1: Percentage of students who drank one or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
			34.3	29.8	27.4	No linear change	Not available	No change
QNMILK2: Percentage of students who drank two or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the								
			16.2	18.8	14.4	No linear change	Not available	No change
QNMILK3: Percentage of students who drank three or more glasses per day of milk (counting the milk they drank in a glass or cup, from a carton, or with cereal and counting the half pint of milk served at school as equal to one glass, during the 7 days before the survey)								
			6.8	8.3	5.4	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Weight Management and Dietary Behaviors

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN78: Percentage of students who did not eat breakfast (during the 7 days before the survey)								
			15.0	23.2	18.8	No linear change	Not available[§]	No change
QNBK7DAY: Percentage of students who ate breakfast on all 7 days (during the 7 days before the survey)								
			26.6	28.2	26.6	No linear change	Not available	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, p < 0.05.
[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Physical Activity

		Health Risk Behavior and Percentages				Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			

QN79: Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

			33.0	38.7	44.4	No linear change	Not available§	No change

QNPA0DAY: Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

			20.5	19.8	16.5	No linear change	Not available	No change

QNPA7DAY: Percentage of students who were physically active at least 60 minutes per day on all 7 days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey)

			19.0	23.0	25.2	No linear change	Not available	No change

QN80: Percentage of students who watched television 3 or more hours per day (on an average school day)

			30.5	21.8	22.4	No linear change	Not available	No change

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§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Physical Activity

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			

QN81: Percentage of students who played video or computer games or used a computer 3 or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work, on an average school day)

| | | | 34.6 | 31.2 | 38.5 | No linear change | Not available[§] | No change |

QN82: Percentage of students who attended physical education (PE) classes on 1 or more days (in an average week when they were in school)

| | | | 53.2 | 52.0 | 53.1 | No linear change | Not available | No change |

QNDLYPE: Percentage of students who attended physical education (PE) classes on all 5 days (in an average week when they were in school)

| | | | 25.6 | 18.9 | 27.7 | No linear change | Not available | No change |

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[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Other

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN86: Percentage of students who saw a dentist (for a check-up, exam, teeth cleaning, or other dental work, during the 12 months before the survey)								
				62.1	66.5	No linear change	Not available§	No change
QNNODNT: Percentage of students who never saw a dentist (for a check-up, exam, teeth cleaning, or other dental work)								
				2.4	3.4	No linear change	Not available	No change
QN87: Percentage of students who had ever been told by a doctor or nurse that they had asthma								
			24.8	18.1	34.5	No linear change	Not available	Increased
QN88: Percentage of students who got 8 or more hours of sleep (on an average school night)								
				31.5	17.7	No linear change	Not available	Decreased

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§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

**Hispanic
Site-Added**

Health Risk Behavior and Percentages						**Linear Change**[*]	**Quadratic Change**[*]	**Change from 2015-2017** [†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN94: Percentage of students who were injured in a physical fight (one or more times during the 12 months before the survey; injuries had to be treated by a doctor or nurse)								
			16.5	8.3	4.3	Decreased, 2013-2017	Not available[§]	No change
QN100: Percentage of students who ever tried smoking cigars, cigarillos, or little cigars (even one or two puffs)								
			27.9	26.3	13.1	Decreased, 2013-2017	Not available	No change
QN102: Percentage of students who responded that their school has special groups or classes for students who want to quit using tobacco								
			7.2	2.2	8.1	No linear change	Not available	No change
QN103: Percentage of students who saw or heard ads about the dangers of cigarette smoking (on TV, the Internet or on the radio, on at least 1 day during the 30 days before the survey)								
				77.6	71.2	No linear change	Not available	No change

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[†]Based on t-test analysis, p < 0.05.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN104: Percentage of students who sometimes, most of the time, or always see ads for tobacco products when they use the Internet								
				33.8	36.1	No linear change	Not available[§]	No change
QN105: Percentage of students who live with someone that smokes cigarettes								
			38.3	32.1	46.4	No linear change	Not available	No change
QN106: Percentage of students who were at home when someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				24.0	28.9	No linear change	Not available	No change
QN107: Percentage of students who rode in a vehicle where someone was smoking tobacco products (on at least one day during the 7 days before the survey)								
				25.8	24.3	No linear change	Not available	No change

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[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Site-Added

Health Risk Behavior and Percentages						Linear Change[*]	Quadratic Change[*]	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN108: Percentage of students who breathed the smoke from someone who was smoking tobacco products in indoor or outdoor public places (such as school buildings, stores, restaurants, stadiums, school grounds, parking lots, and parks, on at least one day during the 7 days before the survey)								
				42.2	43.1	No linear change	Not available[§]	No change
QN110: Percentage of students who participated in any community activities to educate the public about the dangers of secondhand smoke (during the 12 months before the survey)								
			9.6	4.0	17.5	No linear change	Not available	No change
QN111: Percentage of students who live in a home where smoking tobacco products is never allowed								
				76.9	77.2	No linear change	Not available	No change
QN112: Percentage of students who ride in or drive family vehicles in which smoking tobacco products is never allowed								
				70.1	74.2	No linear change	Not available	No change

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[§]Not enough years of data to calculate.

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Missouri High School Survey
10-year Trend Analysis Report

**Hispanic
Site-Added**

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 [†]
2007	2009	2011	2013	2015	2017			
QN113: Percentage of students who think people should never allow smoking inside their home								
				81.4	84.5	No linear change	Not available[§]	No change
QN114: Percentage of students who think people should never allow smoking in their vehicles								
				77.2	83.3	No linear change	Not available	No change
QN115: Percentage of students who think employers should never allow smoking in indoor areas in places where people work								
				86.0	88.2	No linear change	Not available	No change
QN117: Percentage of students who did exercises to strengthen or tone their muscles on three or more days (such as push-ups, sit-ups, or weight lifting, during the 7 days before the survey)								
			49.1	51.9	46.9	No linear change	Not available	No change

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[§]Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Site-Added

Health Risk Behavior and Percentages						Linear Change*	Quadratic Change*	Change from 2015-2017 †
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN118: Percentage of students who had been told by a doctor or nurse that they had asthma and who still have asthma								
			8.8	9.9	15.1	No linear change	Not available§	No change
QN120: Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not counting getting a spray-on tan], one or more times during the 12 months before the survey)								
			13.6	8.8		No linear change	Not available	No change
QN122: Percentage of students who ate dinner at home with at least one of their parents on four or more days (during the 7 days before the survey)								
			61.6	51.3		No linear change	Not available	No change
QN123: Percentage of students who strongly agree or agree that their teachers really care about them and give them a lot of encouragement								
			57.6	69.6		Increased, 2015-2017	Not available	Increased

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§Not enough years of data to calculate.

Missouri High School Survey
10-year Trend Analysis Report

Hispanic
Site-Added

		Health Risk Behavior and Percentages				Linear Change[*]	Quadratic Change[*]	Change from 2015-2017[†]
2007	**2009**	**2011**	**2013**	**2015**	**2017**			
QN125: Percentage of students who participate in school activities one or more hours (such as sports, band, drama, or clubs, during an average week when they are in school)								
				59.8	53.8	No linear change	Not available[§]	No change

[*]Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade, $p < 0.05$.
[†]Based on t-test analysis, $p < 0.05$.
[§]Not enough years of data to calculate.