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Youth Risk Behavior Survey 2011



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A total of 3,492 Hamilton County high school students from 19 public and six private schools completed the survey between October 2010 and January 2011.

Classroom teachers administered surveys using a protocol to enhance the confidentiality of student responses. Participation was voluntary, and either parents or students could choose not to participate. Overall student response rate was 69.6%, with non-response based on student absenteeism and student or parent refusal.

Previous YRBS studies were conducted in 1998 (2,990 surveys completed) and 2002 (2,752 surveys completed).

2011 YRBS funding was provided by:
Community Foundation of Greater Chattanooga
Chattanooga-Hamilton County Health Department
First Things First
Medical Foundation of Chattanooga On Point
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Bea Lurie (Girls Inc. of Chattanooga)
and in partnership with:
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Health and Wellness of Hamilton County Youth

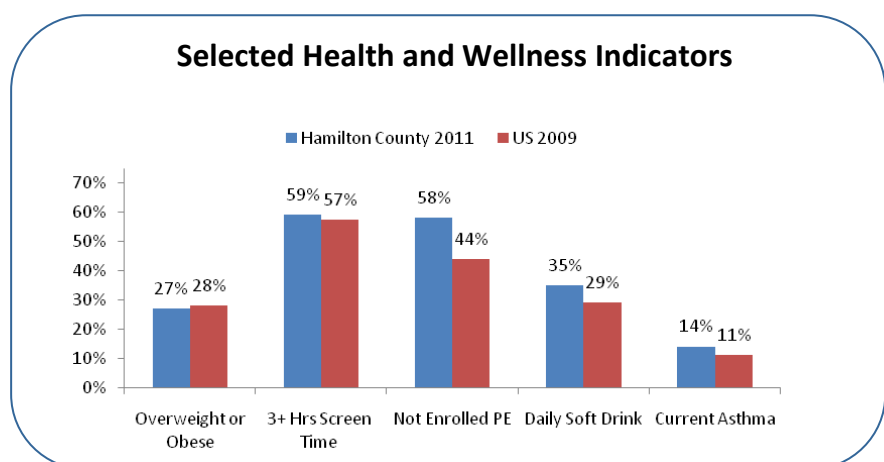
The majority of high school students in Hamilton County fail to meet recommended guidelines for physical activity and nutrition. The Centers for Disease Control recommends limiting screen time (includes time spent watching television, playing video games, or using the computer for fun) to no more than two hours per day; 59% of students reported three or more hours screen time, and 35% reported five or more hours screen time. Three out of four students did not participate in 60 or more minutes of physical activity on each of the 7 days before the survey, as recommended by the CDC. More than one-third (35%) drank at least one sugar-sweetened soft drink daily, while 18% consumed three or more soft drinks per day. Eighty percent did not eat the recommended five daily servings of fruits and vegetables.

An unhealthy diet and lack of exercise are major risk factors for overweight and obesity and contribute to the development of chronic diseases such as hypertension, heart disease, stroke, diabetes, some cancers, gall bladder disease, and arthritis. Moreover, diet and physical activity may have a strong impact on learning outcomes and success in the classroom.

Twenty-seven percent of high school students were either overweight (15%) or obese (12%), based on self-reported height and weight. The incidence of overweight and obesity was significantly higher among black (36%) and Latino (37%) students than among white students (23%). Males (14%) were more likely to be obese than females (10%). There were no differences by grade level.

Asthma is one of the most common causes of school absenteeism. Children with asthma miss 2.5 more days of school than their peers, according to national data. The incidence of asthma among local high school students is significantly higher than the state and nation: 26% have ever been diagnosed with asthma (TN 18%; US 22%) and 14% currently have asthma (11% TN; 11% US). Within Hamilton County public schools, 3,200 students have been identified by their parents as having asthma. Of those, 364 are in grades 9 through 12. School officials note that the actual number of students with asthma is probably higher, as some parents do not report medical conditions.

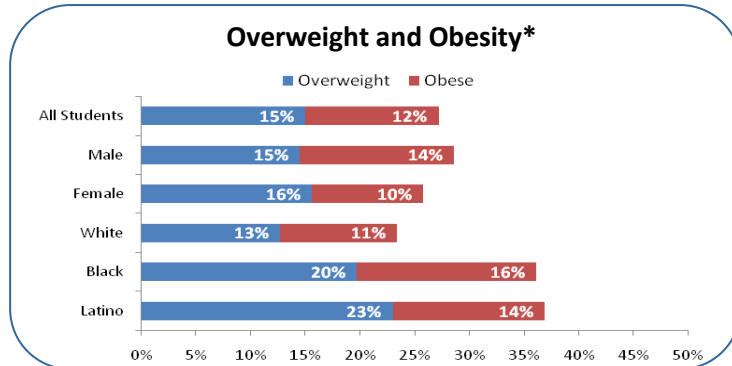
HAMILTON COUNTY AND U.S. COMPARISONS



OVERWEIGHT AND OBESITY

27% of students were either overweight or obese, according to self-reported height and weight.

- Males were significantly more likely to be obese than females (14% vs. 10%). There were no differences in overweight by gender.
- The incidence of overweight and obesity was significantly higher among black (36%) and Latino (37%) students than white students (23%). There were no differences by grade.
- The percentages of students considered overweight or obese did not change from the 2002 survey (when 15% were overweight and 12% were obese).

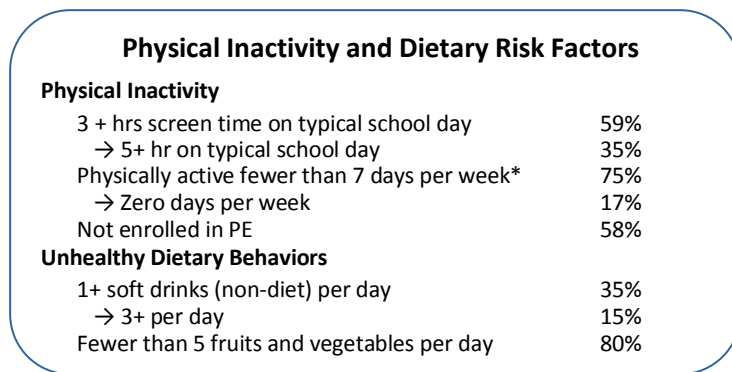


*Based on Body Mass Index (BMI)
For individuals under age 18, overweight is defined as the 85th BMI percentile; obese is defined as the 95th BMI percentile.

RISK FACTORS FOR OVERWEIGHT AND OBESITY AND CHRONIC DISEASE

The majority of students failed to meet recommended guidelines for physical activity and nutrition.

- The majority of students (59%) reported three or more hours of screen time on a typical school day, and 35% reported five or more hours screen time. Three out of four students were not physically active for at least 60 minutes on each of the previous seven days as recommended by the CDC, and 17% were physically inactive the entire week.
- More than one-third of students drank at least one sugar sweetened soft drink daily, and 15% drank 3 or more per day. 80% did not eat the recommended 5 daily servings of fruits and vegetables.

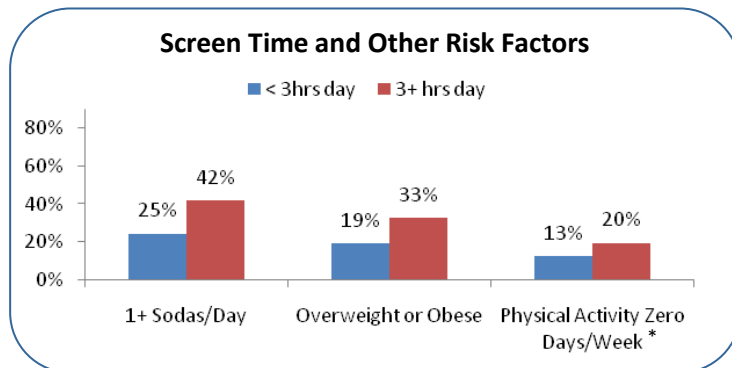


* For at least 60 minutes per day

SCREEN TIME—HOURS OF TV, COMPUTER, OR VIDEO GAMES PER DAY

59% of students reported three or more hours of screen time on a typical school day.

- Screen time includes television, video games, or computer use for fun. The CDC recommends limiting screen time to no more than two hours per day.
- Having three or more hours of screen time was associated with higher soft drink consumption, higher rates of overweight and obesity, and less physical activity.
- Excess screen time was more common among males (61%) than females (57%) and among blacks (74%) than Latinos (64%) or whites (54%). There were no differences by grade.

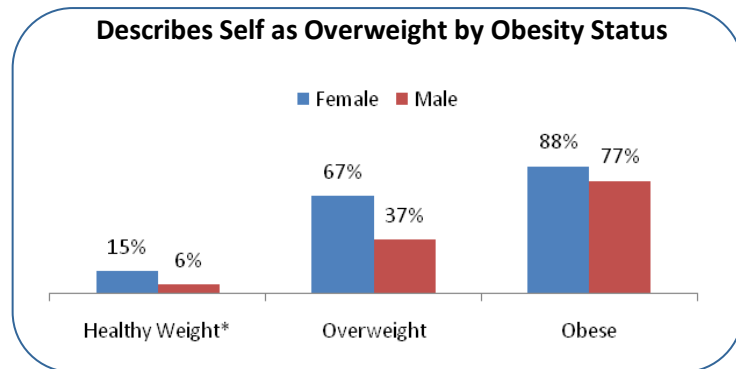


* For at least 60 minutes per day

PERCEPTIONS OF WEIGHT

Females were more likely than males to say they were overweight, regardless of obesity status.

- Overall, 60% of students think they are at about the right weight, 14% believe they are underweight, while 26% believe they are overweight.
- There were striking differences in body image by gender. 31% of females and 21% of males said they were overweight. These differences occurred at every obesity category. Among healthy weight students, females were more than twice as likely as males to say they were overweight (15% vs. 6%). Conversely, overweight males were less likely than overweight females to regard themselves as overweight (37% vs. 67%).

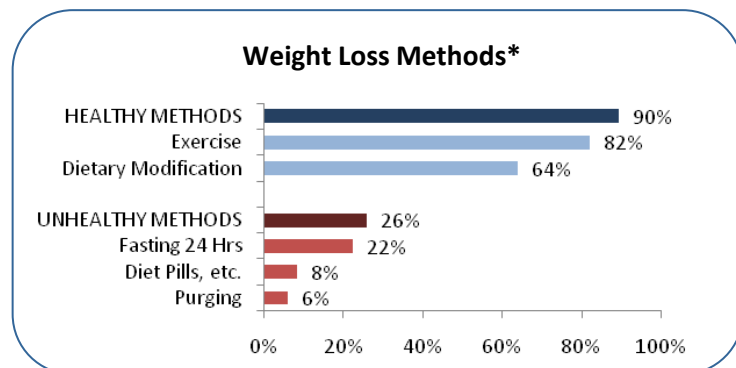


*May include some underweight students

WEIGHT LOSS ATTEMPTS

41% of all students were trying to lose weight.

- Among overweight or obese students, 70% were trying to lose weight, while 30% of healthy weight students were trying to lose weight.
- The overwhelming majority of students who were trying to lose weight reported using healthy weight loss methods such as dietary modifications or exercise. However, 26% also reported unhealthy approaches, such as fasting (22%), non-prescribed weight loss products (8%), or purging (6%).

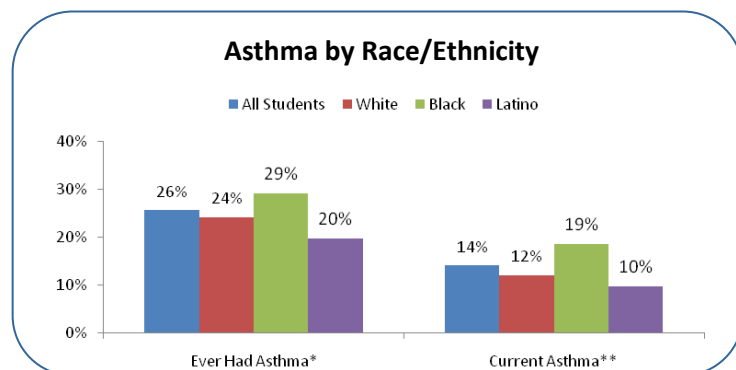


* Among students trying to lose weight

ASTHMA

26% of students have ever been diagnosed with asthma; 14% of all students have current asthma.

- Black students have significantly higher asthma rates than whites or Latinos.
- Local asthma rates were significantly higher than the most recently available state and national rates. 26% of students had ever been diagnosed with asthma, compared to 18% in Tennessee and 22% nationwide; 14% of local students had current asthma, compared to 11% in both Tennessee and the U.S.
- Within Hamilton County public schools, 3,200 students have been identified by their parents as having asthma; of those, 364 are in grades 9 through 12.



*Ever told by doctor or nurse they have asthma

**Ever told by doctor or nurse they have asthma and still have asthma

ECONOMIC IMPACTS OF OBESITY AND ASTHMA

Overweight and obesity among adults in Hamilton County costs the health care system and the economy an estimated \$302.7 million per year. A 2010 research report from George Washington University's School of Public Health identified per-person costs related to obesity and overweight in 2009 dollars. If we assume these costs apply to Hamilton County, where 63.6% of adults are overweight or obese, this translates to \$302.7 million per year in costs related to direct medical expenses, wages, short-term disability, disability pension insurance, lost productivity, fuel costs, and life insurance.

Obese youth are more likely than youth of normal weight to become overweight or obese adults, according to the US Surgeon General. Annually, the average total health expenses for a child treated for obesity under Medicaid is \$6,730, while the average health cost for all children on Medicaid is \$2,446. The average annual health expenses for a child treated for obesity under private insurance is \$3,743, compared to an average of \$1,108 in health cost for all children covered by private insurance. (Robert Wood Johnson Foundation)

On average, asthma costs an estimated \$19,037 over a lifetime in direct and indirect costs. A 2009 study by the Partnership for America's Success calculated a lifetime economic cost of \$7.2 billion in direct and indirect costs for the estimated 380,000 people born in the year 2000 diagnosed with asthma. This translates to \$19,037 per person, including \$8,421 in direct medical costs and \$19,037 in indirect costs related to lost productivity for both parents and the asthma sufferer as he or she enters the workforce. (Partnership for America's Success)

Asthma is one of the most common causes of school absenteeism, a major cause of disability and/or restricted activity among children, and is one of the leading causes of hospitalizations among children. Children with asthma miss 2.48 more days of school than their peers (which means their parents are likely to miss work to care for them), and adults miss 5.7 days of work because of their own illness. (Partnership for America's Success)

HEALTH AND WELLNESS DATA BY DEMOGRAPHIC CHARACTERISTICS

	All Students	Female	Male	White	Black	Latino	9th grade	10th grade	11th grade	12th grade
Dietary Behaviors										
At least 2 servings fruits or fruit juice/day past week	30%	27%	32%	27%	35%	32%	29%	31%	30%	29%
At least 3 servings vegetables/day past week	15%	14%	17%	14%	16%	24%	16%	16%	14%	14%
5+ fruits & vegetables/day past week	20%	17%	23%	18%	23%	27%	21%	21%	20%	18%
3+ glasses milk per day past week	11%	7%	15%	12%	9%	13%	12%	11%	10%	11%
At least 1 soda per day (non-diet) past week	35%	32%	38%	35%	38%	27%	34%	34%	37%	35%
-- 3 + sodas per day (non-diet) past week	15%	13%	17%	14%	19%	11%	17%	17%	15%	13%
Physical Activity										
Physically active 60+ min on 7 days past week	25%	16%	33%	27%	21%	18%	27%	26%	23%	23%
Physically active 60+ min on 5+ days past week	44%	33%	54%	48%	37%	37%	47%	45%	42%	42%
Physically active 60+ min on 0 days past week	17%	21%	13%	13%	25%	18%	13%	14%	21%	19%
Video games/computer for fun 3+ hrs avg school day	26%	21%	31%	24%	30%	28%	29%	26%	25%	25%
Watched TV 3+ hrs day average school day	36%	37%	36%	27%	57%	38%	36%	36%	36%	37%
Total screen time 3+ hrs (tv,video, computer)	59%	57%	61%	52%	74%	64%	59%	61%	58%	58%
Attend PE	42%	36%	48%	43%	40%	51%	61%	44%	30%	32%
Attend PE daily	25%	20%	29%	25%	24%	24%	34%	29%	17%	18%
Play on at least 1 sports team	60%	54%	67%	62%	58%	56%	64%	61%	60%	57%
Body Weight										
Percentage overweight (85th percentile BMI*)	15%	16%	15%	13%	20%	23%	16%	16%	15%	14%
Percentage obese (95th percentile BMI*)	12%	10%	14%	11%	16%	14%	12%	12%	11%	13%
Describe themselves as slightly or very overweight	26%	31%	21%	26%	25%	30%	26%	24%	26%	26%
Trying to lose weight	41%	55%	28%	42%	38%	43%	43%	42%	40%	38%
Cut food, calories, fat to lose/maintain wgt past month	36%	46%	26%	39%	29%	36%	36%	35%	35%	37%
Exercised to lose/maintain wgt - past month	58%	63%	53%	60%	55%	61%	61%	60%	55%	56%
Fast 24 hrs to lose/maintain wgt - past month	11%	15%	8%	11%	12%	12%	12%	11%	10%	12%
Diet pills, powders, liquids to lose/maintain wgt - past mo	5%	5%	5%	5%	4%	9%	4%	5%	6%	4%
Vomited/laxatives to lose/maintain wgt - past month	3%	4%	3%	3%	3%	5%	3%	4%	4%	3%
Asthma										
Ever had asthma	26%	25%	26%	24%	29%	20%	25%	26%	24%	28%
Current asthma (ever diagnosed and still have)	14%	16%	13%	12%	19%	10%	13%	15%	13%	16%

*BMI=body mass index; weight in kilograms divided by height in meters squared