

Utah Health Status Update: Overweight and Obesity Among Children and Adolescents

October 2012

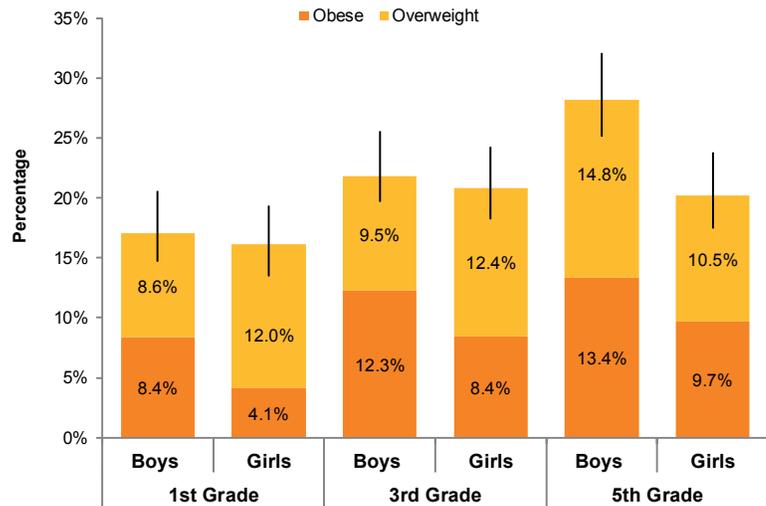
Obesity is a growing threat to the current and future health of Utah's youth. Childhood overweight strongly predicts obesity later in life. Obesity-related chronic diseases previously found only in adults, including type 2 diabetes, hypertension, and liver disease, are now observed in children. These conditions over time may contribute to shorter lifespans for obese children and adolescents. Poor health-related quality of life – physical, psychosocial, emotional, and school-functioning – is 5.5 times greater in obese children and adolescents than their same-age peers¹. The social and psychological impacts of childhood obesity include social isolation, increased rate of suicidal thoughts, low self-esteem, increased rates of anxiety disorder and depression, and increased likelihood of being bullied.

In 2012, 4477 first, third, and fifth grade students from 69 randomly selected elementary schools throughout the state were weighed and measured to assess the extent of childhood overweight and obesity in Utah. This ongoing study has been conducted by the Utah Department of Health (UDOH), local school districts, local health departments and school nurses every two years since 2006. In 2012, 20.8% of students were at an unhealthy weight (overweight and obese combined). The rate in 2010 was similar at 20.4%. More boys were overweight or obese than girls at every grade (figure 1). Overall, a significantly higher percentage of males (11.4%) than females (7.5%) are obese. The prevalence of obesity increased significantly among both boys

- **Child and adolescent obesity is a problem in Utah and it is getting worse.**
- **The rate of overweight and obesity is higher in boys than girls at all ages, and increases from 1st through 5 grades.**
- **Adolescent obesity disproportionately affects Hispanic and non-White students.**

Obese or Overweight Students

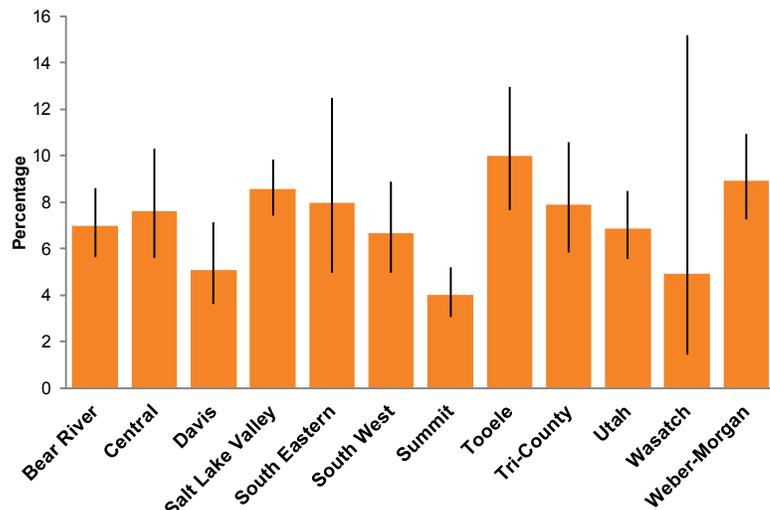
Figure 1. Percentage by Grade and Sex, Utah, 2012



Source: Utah Height and Weight Study, 2012

Obese Adolescents by Local Health District

Figure 2. Percentage for Grades 8, 10, and 12, Utah, 2011



Source: Utah Prevention Needs Assessment Survey 2011

and girls between first and third grades. By fifth grade, 13.4% of boys are obese, with 28.2% at an unhealthy weight.

The Prevention Needs Assessment was administered by the Utah Department of Human Services to eighth, tenth, and twelfth grade students throughout middle and high schools in Utah in 2011. According to self-reported height and weight, 7.5% of adolescents were obese in 2011. The

rate varied by local health district (figure 2), with the highest percentages in Tooele County (10.0%), Weber-Morgan (8.9%), and Salt Lake Valley Health Districts (8.6%). Significantly fewer students were obese in Summit County (4.0%) than the state rate.

In a logistic regression model adjusting for local health district, race/ethnicity, and sex, differences emerge by race/ethnicity and sex (figure 3). Hispanic students were 2.1 times more likely to be obese than white, and non-Hispanic, non-White students 1.9 times more likely. Among white students, 6.2% were obese, a significantly lower rate than Hispanic (12.8%) and non-white non-Hispanic students (11.6%). Obesity was 1.8 times more likely among boys (9.5%) than girls (5.4%).

Data from the Youth Risk Behavior Survey, administered by the UDOH, demonstrates the trend in adolescent obesity in Utah and the U.S. over time (figure 4). The percentage of obese adolescents was significantly higher in 2011 (8.6%) than in 1999 (5.4%), an increase of 63%. Utah has a lower percentage of obese adolescent students than the U.S., but the trend is similar. More boys (12.2%) than girls (9.8%) were obese in all grades from 9th-12th, and the prevalence of obesity did not change with grade.

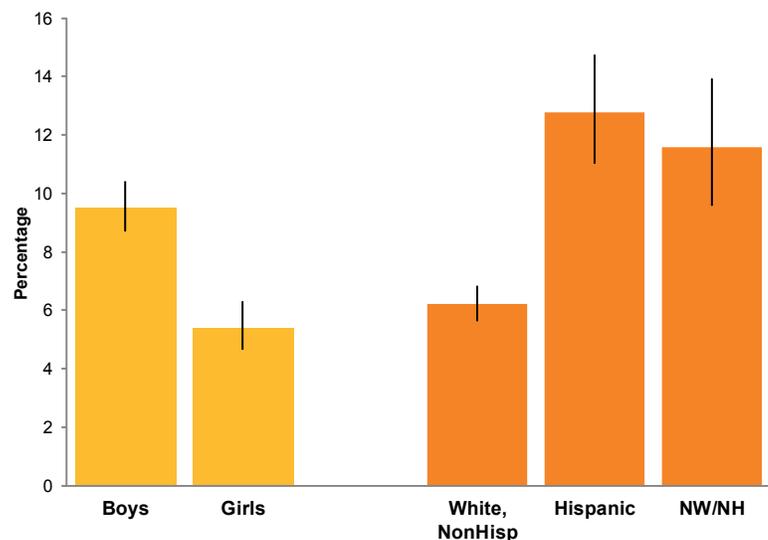
Childhood obesity is a public health, academic, and economic issue in Utah, as well as the U.S. The complex nature of obesity – its causes, consequences, and possible solutions – requires a sustained and comprehensive approach to reverse the trend. The Utah Nutrition and Physical Activity Plan 2010-2020² is a 10-year action plan to reduce the burden of obesity. The plan emphasizes policy and environmental changes to enable Utah residents to make healthier choices related to nutrition and physical activity. The strategies outlined in the plan will be achieved through joint efforts of state and local government agencies, nonprofit organizations, business leaders, health care providers and insurers, and education organizations.

References

1. Schwimmer JB, Burwinkle TM, and Varni JW. (2003) Health-related quality of life of severely obese children and adolescents. *Journal of the American Medical Association* 298(14):1813-1819.

Obese Adolescents by Race/Ethnicity and Sex

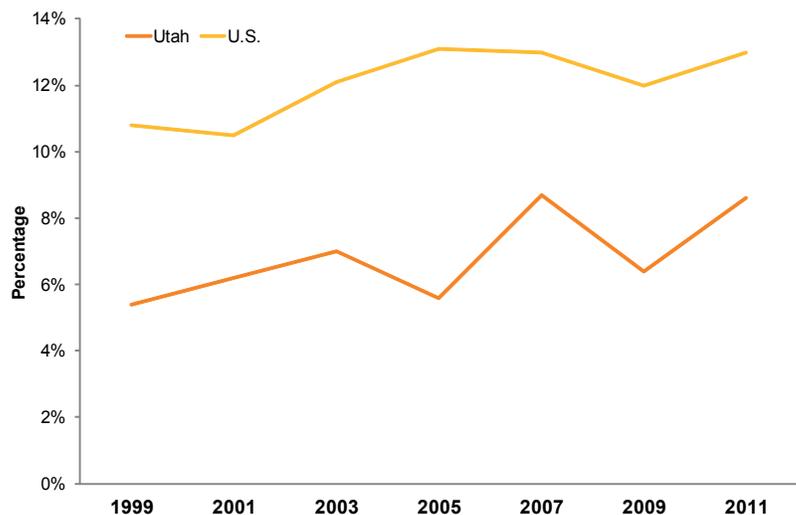
Figure 3. Percentage for Grades 8, 10, and 12, Utah, 2011



Source: Utah Prevention Needs Assessment Survey 2011

Obese Adolescents by Year

Figure 4. Percentage by Year, Grades 9-12, Utah and U.S., 1999, 2001, 2003, 2005, 2007, 2009, and 2011



Source: Youth Risk Behavior Survey

- Utah Nutrition and Physical Activity Plan 2010-2020, (2010) Salt Lake City, UT, Utah Department of Health. Available for download at <http://choosehealth.utah.gov/>.

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Breaking News, October 2012

Co-Infection Trends of HIV among Primary & Secondary Syphilis, Utah, 2007 – 2011

There are numerous stages of syphilis. Primary and secondary (P&S) syphilis are considered to be the most infectious stages. Lesions, or open sores, are common signs during these early stages and direct contact with them is the typical mode of transmission of the bacteria. Syphilitic lesions are a concern with the HIV virus as the open sores increase the risk of HIV transmission to or acquisition from a sexual partner. Syphilis infections are also managed differently by the provider if the patient is HIV-positive. Thus, monitoring these trends has an important impact on preventing the spread of both HIV and syphilis infections.

In 2002, a study estimated that 25% of the P&S syphilis cases reported in the U.S. occurred in persons co-infected with HIV.¹ Another study conducted from 2004 to 2005 in 3 major cities within the U.S. found that among men diagnosed with P&S syphilis, 45% were HIV-positive.² Co-infection in Utah over the last 5 years has ranged from 58% in 2008 to 33% in 2011, with a 5-year average of 51% of the P&S syphilis cases being co-infected with HIV, either currently or previously diagnosed. Most importantly, the percentage of co-infected P&S syphilis cases with a previous diagnosis of HIV increased from 50% in 2007 to 80% in 2011, suggesting more education and prevention efforts must be administered to HIV positives.

1. Chesson HW et al. Estimates of primary and secondary syphilis rates in persons with HIV in the United States, 2002. *Sex Transm Dis* 2005 May; 32:265.

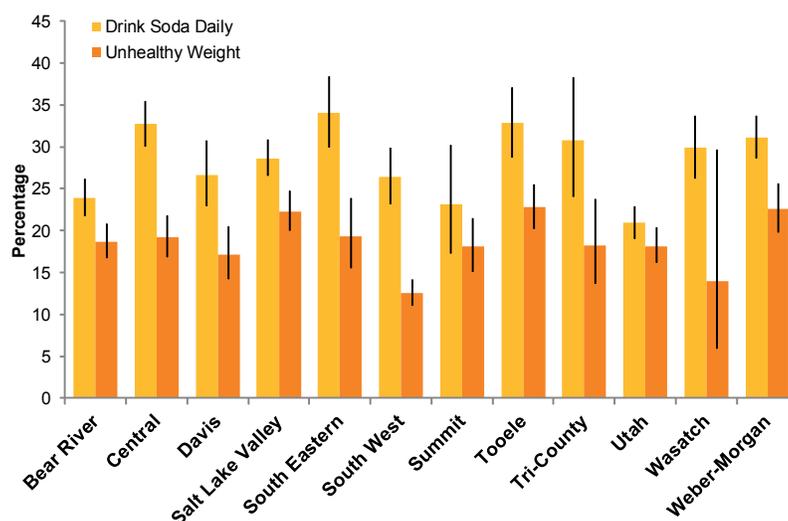
2. Buchacz K et al. HIV incidence among men diagnosed with early syphilis in Atlanta, San Francisco, and Los Angeles, 2004 to 2005. *J Acquir Immune Defic Syndr* 2008 Feb; 1:47(2):234-40.

Community Health Indicators Spotlight, October 2012

Sugar Sweetened Beverages and Adolescent Weight

Each serving of soda, iced tea, sports drink, or sweetened fruit juice a child drinks per day increases his chance of becoming overweight or obese.¹ These beverages are known collectively as sugar sweetened beverages, or SSBs. In Utah during 2011, 8.9% of students who drank SSBs at least daily were obese, and 10.5% who drank three or more SSBs per day were obese. Contrasting these rates with the 6.9% obesity among students who drank SSBs less than daily presents a striking relationship.² The link between SSB consumption and obesity can be seen across the state. More students reported drinking SSBs every day in the Southeastern (34.0%), Tooele County (32.8%), Central (32.7%), and Weber-Morgan (31.1%) Health Districts than the state rate (26.9%).² These were also among the local health districts with the highest rates of adolescent unhealthy weight (overweight and obesity). According to Utah principals, in 2012 students could buy soda or sweetened juice in 56.1% of secondary schools and sports drinks in 64.2% of secondary schools.³ In keeping with Healthy People 2020, these data suggest that one of the most straightforward ways to decrease unhealthy weight in adolescents is to decrease the sugar sweetened beverages available to them.

Unhealthy Weight and Daily Soda Consumption Among Adolescents by Local Health District, Utah 2011²



1. Ludwig DS, et al. (2001) Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet* 357: 505-508.

2. Utah Prevention Needs Assessment Survey, 2011.

3. School Health Profiles, 2012.

Monthly Health Indicators Report

(Data Through August 2012)

Monthly Report of Notifiable Diseases, August 2012	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	47	43	310	283	1.1
Shiga toxin-producing Escherichia coli (E. coli)	25	33	71	88	0.8
Hepatitis A (infectious hepatitis)	0	1	4	6	0.6
Hepatitis B, acute infections (serum hepatitis)	1	1	10	7	1.4
Meningococcal Disease	0	0	3	5	0.6
Pertussis (Whooping Cough)	46	31	826	227	3.6
Salmonellosis (Salmonella)	32	34	176	231	0.8
Shigellosis (Shigella)	3	6	16	28	0.6
Varicella (Chickenpox)	5	13	192	389	0.5
West Nile (Human Cases)	1	9	2	12	0.2

Quarterly Report of Notifiable Diseases, 2nd Qtr 2012	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	22	28	44	57	0.8
Chlamydia	1,779	1,549	3,747	3,135	1.2
Gonorrhea	92	115	189	229	0.8
Syphilis	5	11	9	17	0.5
Tuberculosis	11	9	20	18	1.1

Medicaid Expenditures (in Millions) for the Month of August 2012	Current Month	Expected/Budgeted‡ for Month	Fiscal YTD	Budgeted‡ Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 11.1	\$ 13.9	\$ 20.0	\$ 19.4	\$ 0.6
Inpatient Hospital	\$ 16.1	\$ 32.4	\$ 24.8	\$ 45.3	\$ (20.5)
Outpatient Hospital	\$ 6.7	\$ 10.0	\$ 8.7	\$ 14.0	\$ (5.3)
Long Term Care	\$ 13.2	\$ 15.8	\$ 21.0	\$ 22.2	\$ (1.2)
Pharmacy§	\$ 13.6	\$ 13.4	\$ 25.4	\$ 18.8	\$ 6.6
Physician/Osteo Services	\$ 7.7	\$ 9.6	\$ 10.7	\$ 13.4	\$ (2.8)
TOTAL HCF MEDICAID	\$121.0	\$ 148.5	\$ 194.1	\$ 230.8	\$ (36.6)

Program Enrollment for the Month of August 2012	Current Month	Previous Month	% Change¶ From Previous Month	1 Year Ago	% Change¶ From 1 Year Ago
Medicaid	253,188	251,402	+0.7%	247,627	+2.2%
PCN (Primary Care Network)	15,919	16,414	-3.0%	15,820	+0.6%
CHIP (Children's Health Ins. Plan)	36,232	36,605	-1.0%	38,641	-6.2%

Health Care System Measures	Annual Visits			Annual Charges	
	Number of Events	Rate per 100 Population	% Change¶ From Previous Year	Total Charges in Millions	% Change¶ From Previous Year
Overall Hospitalizations (2010)	274,576	9.0%	-2.6%	\$ 5,416.2	+5.9%
Non-maternity Hospitalizations (2010)	167,340	5.3%	-0.9%	\$ 4,552.5	+5.9%
ED Encounters - Not Admitted (2010)	645,962	21.5%	-7.7%	\$ 1,160.9	+7.4%
Outpatient Surgery (2009)	311,442	10.6%	+1.9%	\$ 1,465.7	+14.7%

Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change¶ From Previous Year	State Rank# (1 is best)
Obesity (Adults 18+)	2010	454,700	23.1%	-4.0%	11 (2010)
Cigarette Smoking (Adults 18+)	2010	180,100	9.1%	-6.9%	1 (2010)
Influenza Immunization (Adults 65+)	2010	175,900	68.2%	-0.8%	23 (2010)
Health Insurance Coverage (Uninsured)	2010	301,900	10.6%	-5.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2010	231	8.1 / 100,000	+0.1%	19 (2009)
Poisoning Deaths	2010	342	12.0 / 100,000	-38.1%	47 (2009)
Suicide Deaths	2010	479	16.8 / 100,000	+5.8%	n/a
Diabetes Prevalence (Adults 18+)	2010	128,000	6.5%	+6.2%	15 (2010)
Poor Mental Health (Adults 18+)	2010	296,100	15.0%	-0.2%	17 (2010)
Coronary Heart Disease Deaths	2010	1,488	52.2 / 100,000	-0.4%	2 (2008)
All Cancer Deaths	2010	2,791	98.0 / 100,000	+7.9%	1 (2008)
Stroke Deaths	2010	736	25.8 / 100,000	-1.4%	13 (2008)
Births to Adolescents (Ages 15-17)	2010	876	14.3 / 1,000	-13.2%	17 (2009)
Early Prenatal Care	2010	38,124	73.1%	+2.1%	n/a
Infant Mortality	2010	251	4.8 / 1,000	-9.0%	3 (2008)
Childhood Immunization (4:3:1:3:3:1)	2010	38,900	70.6%	-7.8%	12 (2010)

Note: Active surveillance has ended for influenza virus until the 2012-2013 season.
† Diagnosed HIV infections, regardless of AIDS diagnosis.
‡ Budget has been revised to include supplemental funding from 2011 General Session.
§ Only includes the gross pharmacy costs. Pharmacy Rebate and Pharmacy Part-D amounts are excluded from this line item.
¶ % Change could be due to random variation.
State rank based on age-adjusted rates.
Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for West Nile virus has ended until the 2012 season.