UTAH DEPARTMENT OF HEALTH

Utah Health Status Update:
Eating Disorders Among Adolescents

January 2017

Eating disorders, such as anorexia, bulimia, and binge-eating disorder, are defined by strong emotions and behaviors related to weight and food. There can be serious mental and physical health consequences as a result of eating disordered behavior.

Body Mass Index (BMI) data based on age and sex growth charts was used to identify students with a BMI below the 15th percentile. Adolescents with potential eating disorders were then defined as those with a BMI below the 15th percentile and one or more of the following behaviors: 1) trying to lose weight; 2) fasting for 24 hours or more to lose weight during the past 30 days; 3) taking diet pills to lose weight during the past 30 days; and 4) vomiting or using laxatives to lose weight during the past 30 days.

In 2011 and 2013, about 4% of female students and 1.4% of male students in grades 9–12 in Utah public schools met a threshold for low-weight combined with eating disordered behaviors. These rates total more than 1,000 boys and nearly 3,000 girls in Utah. The most commonly reported unhealthy eating behaviors for underweight adolescents were trying to lose weight (12.1%), followed by fasting (8.8%), vomiting (4.2%), and taking pills (1.7%). All of these behaviors had higher rates for girls.

The incidence of potential eating disorders in adolescents was associated with higher rates of depression, suicide ideation and attempt, bullying, and physical and sexual violence. Adolescents with a potential eating disorder reported higher rates of feeling so sad or hopeless for two weeks that they stopped doing their usual activities (42.3% vs 25.9%). Similarly students with a potential eating disorder reported that they had considered suicide during the past 12 months (32.5% vs 14.3%), made a suicide plan (29.8% vs 11.6%), attempted suicide (19.9% vs 6.4%), and were injured as a result of a suicide attempt (5.4% vs 2.1%) at higher rates than those without a potential disorder (Figure 1).

In addition to depression and suicide, experiences of bullying and feeling unsafe at school were significantly higher for those students with potential eating disorders; 33.2% of students with potential eating disorders reported being bullied on school property in the past 12 months, compared to 21.5% of students with no potential disorder. Electronic bullying was also measured and 36.5% of students with potential eating disorders reported being electronically bullied during the past 12 months, compared to 16.3% of students without a disorder (Figure 2).

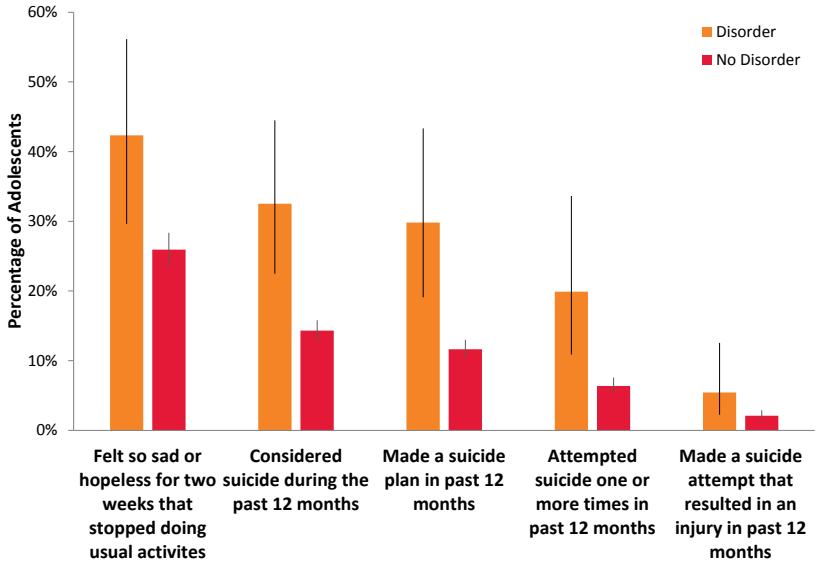
Beyond bullying, the findings indicate a drastically higher rate of physical and sexual violence by a dating partner (32.2% and 38% respectively) for

KEY FINDINGS

- **In 2011 and 2013, about 4% of female students and 1.4% of male students in grades 9–12 in Utah public schools met a threshold for low-weight combined with eating disordered behaviors.**
- **Adolescents with a potential eating disorder reported higher rates of feeling so sad or hopeless for two weeks that they stopped doing their usual activities (42.3% vs 25.9%).**
- **33.2% of students with potential eating disorders reported being bullied on school property in the past 12 months, compared to 21.5% of students with no potential disorder.**
- **The findings indicate a drastically higher rate of physical and sexual violence by a dating partner (32.2% and 38% respectively) for students with potential eating disorders compared to those with no eating disorder (5.6% physical violence and 9.5% sexual violence).**

Depression and Suicide

Figure 1. Percentage of adolescents reporting depression and suicide by potential eating disorder status, Utah, 2011 and 2013



Source: Utah Youth Risk Behavior Survey

students with potential eating disorders compared to those with no eating disorder (5.6% physical violence and 9.5% sexual violence) (Figure 3).

The association between eating disorders and adverse health experiences is of great concern. Prevention and early intervention of these behaviors and experiences is critical to the long-term health and well-being of young people and may help mitigate co-morbidity of additional risk behaviors.

These numbers most likely underestimate of the true scope of the problem since individuals with BMIs that indicate normal weight, overweight, or obesity also experience eating disorders and are susceptible to the eating disordered risk behaviors. The purpose of the definition used in this report was to conservatively define those youth that may be suffering from anorexia or another eating disorder by looking at unhealthy low-weight in conjunction with unhealthy weight loss behaviors, in the absence of true diagnoses.

Recommendations:

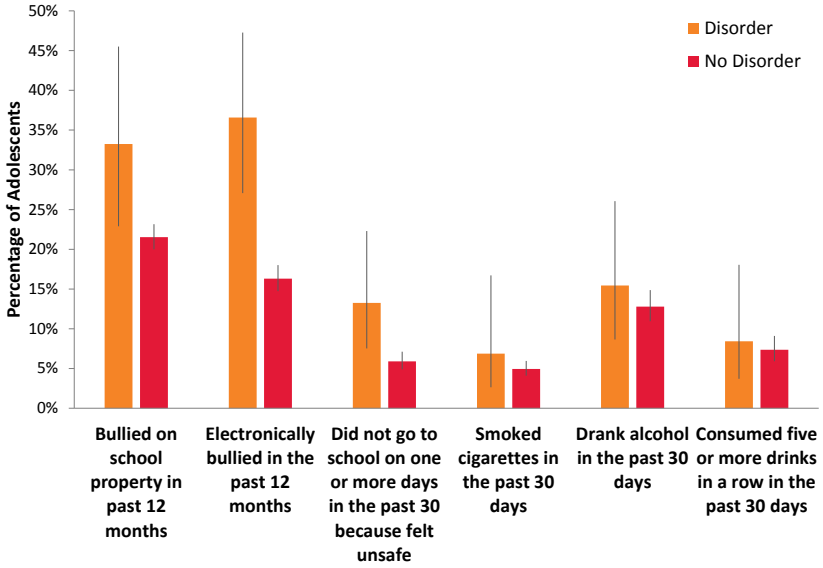
- Pediatricians should screen adolescents for eating disorders and associated risk behaviors.
- School officials, including school nurses and/or counselors, should receive training on identifying and screening for eating disordered behaviors in adolescents.
- More research efforts should be put forth to identify effective strategies to prevent eating disorders in adolescents.

More information on identifying, screening for, diagnosing, and treating eating disorders can be found at https://intermountainhealthcare.org/ext/Dcmnt?ncid=522882792.

For additional information about this topic, contact Megan Waters, Utah Department of Health, (801) 538-6626, email: mewaters@utah.gov or the Office of Public Health Assessment, Utah Department of Health, (801) 538-9191, email: chdata@utah.gov.

Bullying and Substance Abuse

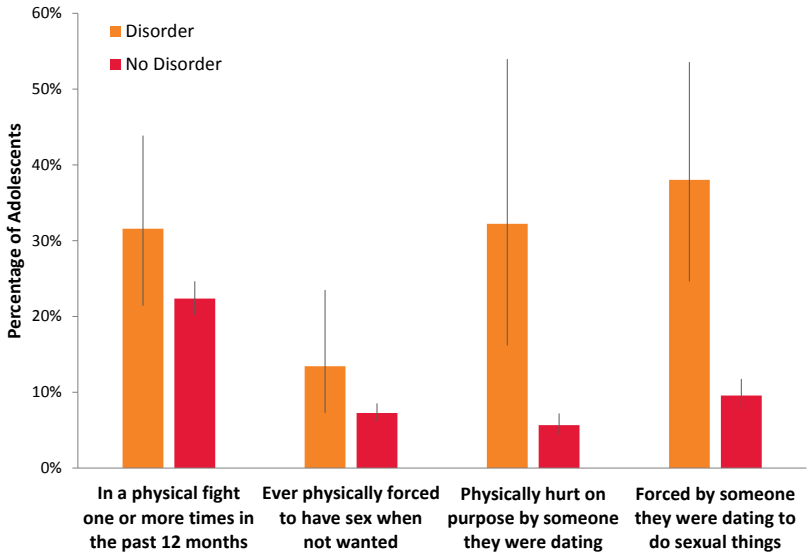
Figure 2. Percentage of adolescents reporting bullying and substance abuse by potential eating disorder status, Utah, 2011 and 2013



Source: Utah Youth Risk Behavior Survey

Physical and Sexual Violence

Figure 3. Percentage of adolescents reporting physical or sexual abuse by potential eating disorder status, Utah, 2011 and 2013



Source: Utah Youth Risk Behavior Survey

UDOH ANNOUNCEMENT:

USDA mandates the creation of peer groupings for WIC vendors by states. Peer groupings are designed to monitor individual product prices and ultimately contain costs among vendors within peer groupings. The Data Resources Program performed Multivariate Hierarchical Cluster Analysis to group similar WIC vendors using characteristics such as store type, sales, size, and location (urban/rural, population density). This model allows for tremendous savings by narrowing the margin of costs and monitoring of pricing fraud. For more information, visit http://health.utah.gov/drp/.

Breaking News, January 2017

Prediabetes

Prediabetes is a condition in which blood glucose levels are higher than normal but not high enough to meet the clinical diagnosis for diabetes. Often there are no obvious symptoms. Within 10 years, nearly half of those with prediabetes will develop type 2 diabetes, a costly disease that can lead to serious health issues including heart disease and stroke. Risk factors for prediabetes include age, being overweight, a family history of diabetes, and a history of gestational diabetes. In 2014, the self-reported prediabetes percentage was 5.6 for Utah adults aged 20 and older; however, based on national estimates, the actual percentage may be as high as one in three Utah adults.

The odds of having prediabetes: 1 in 3 Utah adults

The Utah Department of Health Healthy Living through Environment, Policy, and Improved Clinical Care (EPICC) Program is increasing prediabetes awareness by conducting a media campaign that encourages individuals to take a prediabetes risk test at www.doihaveprediabetes.org, visit www.livingwell.utah.gov to register for diabetes prevention classes, and call the Health Resource Center (1-888-222-2542) for more information. Additionally, EPICC is working with local health departments to promote the National Diabetes Prevention Program, a Centers for Disease Control and Prevention (CDC)-approved lifestyle change program.

Community Health Spotlight, January 2017

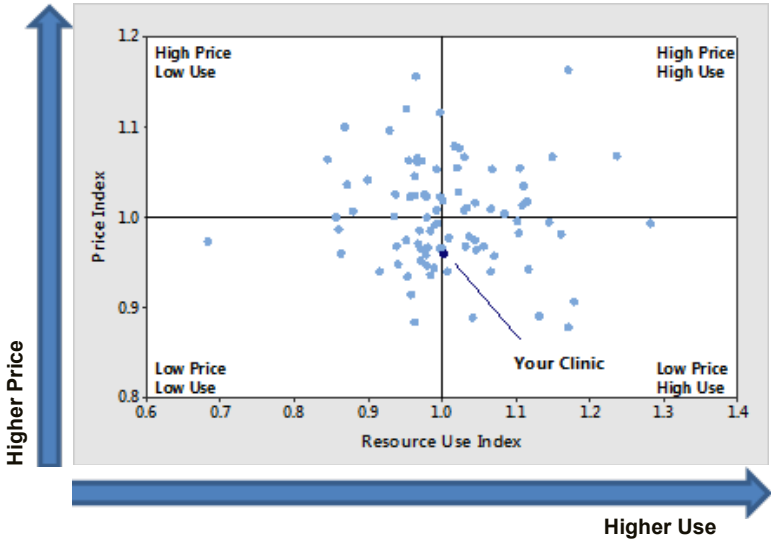
Showcase of Usability of Utah All Payer Claims Data (APCD)

In December 2016, the Office of Health Care Statistics and HealthInsight Utah organized and hosted the 2016 APCD Showcase. Presenters from Brown University, HealthInsight Utah, Ohio State University, University of Utah, Utah Cancer Registry, and Utah Department of Health gave brief overviews of their projects, how the Utah APCD is being used, the benefits and challenges of these data, and their results. The annual showcase provides an opportunity for community members to learn about a variety of applications using claims data and fosters collective learning among APCD users.

The APCD data have been used for following studies:

- The Impact of Continuous Medicaid Coverage on Health Outcome
- Feasibility of Capturing Chemotherapy and Tumor Marker Tests Through APCD
- Measuring the Clinical and Economic Outcomes Associated with Delivery Systems
- Management of Heart Failure: An Assessment of the Treatment Patterns and Resource Utilization in Patients with Systolic Heart Failure
- Using APCD Data to Determine Medication Management for People With Asthma by Health System
- Advancing Transparency Using Utah's APCD
- Continuity of Care and Healthcare Cost/Utilization
- Healthcare Unit Cost and Trend in Utah
- Total Cost and Complication-related Costs after Bariatric Surgery
- Total Cost of Care Primary Care Office Reports (see graph as an example)

Clinic Comparison: Overall Resource Use and Price by Clinic



For more information go to http://stats.health.utah.gov/about-the-data/apcd/.

Monthly Health Indicators Report

(Data Through November 2016)

Monthly Report of Notifiable Diseases, November 2016	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*)	12	31	423	473	0.9
Shiga toxin-producing *Escherichia coli* (*E. coli*)	7	6	72	101	0.7
Hepatitis A (infectious hepatitis)	0	1	9	8	1.2
Hepatitis B, acute infections (serum hepatitis)	0	1	2	9	0.2
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza				
Meningococcal Disease	1	0	3	5	0.6
Pertussis (Whooping Cough)	11	79	200	930	0.2
Salmonellosis (*Salmonella*)	22	23	309	328	0.9
Shigellosis (*Shigella*)	5	3	74	36	2.1
Varicella (Chickenpox)	13	26	206	253	0.8
Quarterly Report of Notifiable Diseases, 3rd Qtr 2016	**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†	21	26	80	84	1.0
Chlamydia	2,329	1,989	7,089	5,841	1.2
Gonorrhea	582	266	1,574	659	2.4
Syphilis	20	13	69	37	1.9
Tuberculosis	6	10	14	27	0.5
Medicaid Expenditures (in Millions) for the Month of November 2016	**Current Month**	**Expected/ Budgeted for Month**	**Fiscal YTD**	**Budgeted Fiscal YTD**	**Variance - over (under) budget**
Capitated Mental Health	$ 15.1	$ 16.9	$ 62.5	$ 65.8	$ (3.3)
Inpatient Hospital	$ 11.0	$ 13.2	$ 50.7	$ 53.2	$ (2.6)
Outpatient Hospital	$ 3.2	$ 3.8	$ 17.9	$ 17.8	$ 0.1
Long Term Care	$ 18.9	$ 19.2	$ 74.6	$ 75.3	$ (0.7)
Pharmacy	$ 3.0	$ 4.5	$ 40.5	$ 42.7	$ (2.2)
Physician/Osteo Services	$ 3.3	$ 3.7	$ 15.5	$ 17.3	$ (1.8)
TOTAL MEDICAID	$ 177.7	$ 173.4	$ 1,016.7	$ 1,018.5	$ (1.8)

Program Enrollment for the Month of November 2016	Current Month	Previous Month	% Change‡ From Previous Month	1 Year Ago	% Change‡ From 1 Year Ago
Medicaid	288,797	290,097	-0.4%	289,160	-0.1%
PCN (Primary Care Network)	15,050	15,547	-3.2%	13,477	+11.7%
CHIP (Children's Health Ins. Plan)	18,696	18,584	+0.6%	16,477	+13.5%
	Annual Visits			Annual Charges	
Health Care System Measures	**Number of Events**	**Rate per 100 Population**	**% Change‡ From Previous Year**	**Total Charges in Millions**	**% Change‡ From Previous Year**
Overall Hospitalizations (2014)	281,302	8.9%	-0.8%	$ 7,281.6	+11.8%
Non-maternity Hospitalizations (2014)	177,881	5.5%	-1.1%	$ 6,200.8	+11.6%
Emergency Department Encounters (2014)	710,266	22.9%	+2.6%	$ 1,760.5	+13.2%
Outpatient Surgery (2013)	404,303	13.1%	+7.3%	$ 2,167.9	+11.5%
Annual Community Health Measures	**Current Data Year**	**Number Affected**	**Percent/ Rate**	**% Change‡ From Previous Year**	**State Rank§ (1 is best)**
Obesity (Adults 18+)	2015	510,400	24.5%	-4.7%	8 (2015)
Cigarette Smoking (Adults 18+)	2015	189,600	9.1%	-6.2%	1 (2015)
Influenza Immunization (Adults 65+)	2015	181,600	59.0%	+1.9%	36 (2015)
Health Insurance Coverage (Uninsured)	2015	263,600	8.8%	-14.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2015	247	8.2 / 100,000	+3.7%	19 (2015)
Poisoning Deaths	2015	697	23.3 / 100,000	+6.8%	43 (2015)
Suicide Deaths	2015	609	20.3 / 100,000	+7.8%	47 (2015)
Diabetes Prevalence (Adults 18+)	2015	145,800	7.0%	-1.4%	10 (2015)
Poor Mental Health (Adults 18+)	2015	333,300	16.0%	+0.6%	18 (2015)
Coronary Heart Disease Deaths	2015	1,619	54.0 / 100,000	+1.0%	2 (2015)
All Cancer Deaths	2015	3,091	103.2 / 100,000	+0.1%	1 (2015)
Stroke Deaths	2015	887	29.6 / 100,000	+2.0%	18 (2015)
Births to Adolescents (Ages 15-17)	2015	489	6.9 / 1,000	-11.7%	12 (2014)
Early Prenatal Care	2015	38,803	76.4%	+0.2%	n/a
Infant Mortality	2015	257	5.1 / 1,000	+3.2%	13 (2014)
Childhood Immunization (4:3:1:3:3:1)	2015	37,400	73.6%	-1.3%	35 (2015)

* Influenza-like illness activity is minimal in Utah. As of December 3, 2016, 65 influenza-associated hospitalizations have been reported to UDOH since the start of the influenza season on October 2, 2016. More information can be found at http://health.utah.gov/epi/diseases/influenza/surveillance/index.html.

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ Relative percent change. Percent change could be due to random variation.

§ State rank based on age-adjusted rates where applicable.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for West Nile Virus will start in June for the 2017 season.