

Utah Health Status Update:

Vaping Trends Among Utah Youth and Adults

December 2017

Vape products, also known as electronic cigarettes, e-cigarettes, tanks, or mods, are battery-powered devices that people use to inhale an aerosol. The aerosol typically contains nicotine, flavorings, and other chemicals such as preservatives. Since their introduction into U.S. markets in 2007, sales of electronic cigarettes and other vape products have grown rapidly.



Source: E-Cigarette Use Among Youth and Adults: A Report of the Surgeon General. 2016. Retrieved on 11/20/2017 from https://e-cigarettes.surgeongeneral.gov/documents/2016_sgr_full_report_non-508.pdf.

KEY FINDINGS

- Recent surveys show that Utah students (grades 8, 10, and 12) were more than twice as likely to report vaping compared to Utah adults.
- At 15.5%, Utah high school seniors reported the highest rate of current vape product use among all surveyed age groups.
- At 12.1%, Utah adults aged 18 to 24, were more likely to report vaping than any other adult age group.
- Overall, 36.7% of Utah adults who used vape products also smoked cigarettes, 35.1% reported that they had smoked cigarettes in the past, and 28.2% reported that they never smoked cigarettes.
- In 2017, nearly 10% of Utah students reported that they usually buy their vape products in vape shops; an additional 8.6% reported buying these products in other stores, tobacco specialty shops, or on the internet.

In Utah, vape product use is most popular with youth and young adults. Exposure to nicotine during adolescence is a serious health concern since the brain is not fully developed until the age of 25. Nicotine interferes with the normal course of brain maturation and has lasting effects on cognitive abilities, mental health, and personality.¹ Adolescent nicotine users have a higher risk of experiencing episodes of depression and cardiac irregularities, and are more likely to become nicotine dependent.² In addition, nicotine dependence may increase the risk for addiction to combustible tobacco, alcohol, and other drugs.

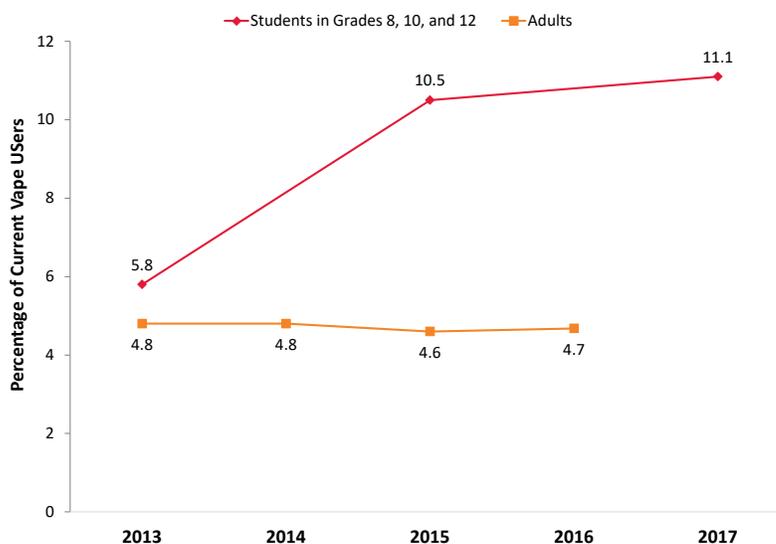
Recent surveys show that Utah students (grades 8, 10, and 12) were more than twice as likely to report vaping compared to Utah adults. The adult vaping rate in Utah has been stable at 4.6 to 4.8% from 2013 to 2016. In comparison, vaping among students increased from 5.8% in 2013 to 11.1% in 2017.

In 2017, vape experimentation ranged from 12.4% among 8th graders to 32.1% among 12th graders. At 15.5%, Utah high school seniors reported the highest rate of current vape product use among all surveyed age groups. The availability of fruit and candy-like flavors and ubiquitous advertising on television, radio, print, and through social media contribute to the popularity of vape products among youth.

At 12.1%, Utah adults aged 18–24, were more likely to report vaping than any other adult age group. Adults aged 25–34 reported the highest rate of cigarette smoking. Overall, 36.7% of Utah adults who used vape products also smoked cigarettes, 35.1% reported that they had smoked cigarettes in the past, and 28.2% reported that they never smoked cigarettes. While vape product research on long-term health effects is still lacking, current findings suggest that vape products are less harmful than combustible

Vape Product Use Over Time

Figure 1. Current use of vape products among Utah adults and students in grades 8, 10, and 12 by year, 2013–2017



Sources: Adults - Utah Behavioral Risk Factor Surveillance System; Students - Utah Prevention Needs Assessment

cigarettes for people who switch from cigarettes to exclusive vape product use. However, nicotine and other potentially harmful chemicals that are part of the vape product aerosol may pose serious health risks for users who never smoked cigarettes. Dual use of vape products and cigarettes is associated with the health consequences of smoking in addition to potential risks of vaping and should be avoided.

Recommendations

Utah law prohibits the sale of tobacco products (including all forms of vape products) to minors under the age of 19. In 2017, nearly 10% of Utah students in grades 8, 10, and 12 reported that they usually buy their vape products in vape shops; an additional 8.6% reported buying these products in other stores, tobacco specialty shops, or on the internet. Additional education and enforcement efforts are needed to decrease youth access to these products.

Retail stores are a primary location for tobacco advertising. A recent observational study of Utah tobacco retailers found that advertising and price promotions are common in tobacco specialty and vape shops. Stricter enforcement of Utah zoning laws that prohibit the operation of tobacco or vape shops near schools and other community locations is expected to decrease youth exposure to tobacco products and advertising.

Effective tobacco control policies for decreasing youth nicotine addiction include: implementing flavor restrictions, raising the tobacco purchase age from 19 to 21 years, and increasing the price through a tobacco tax.^{3,4}

1. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General (CDC). <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>.

2. Nicotine Exposure During Adolescence Alters the Rules for Prefrontal Cortical Synaptic Plasticity During Adulthood. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3410598/>.

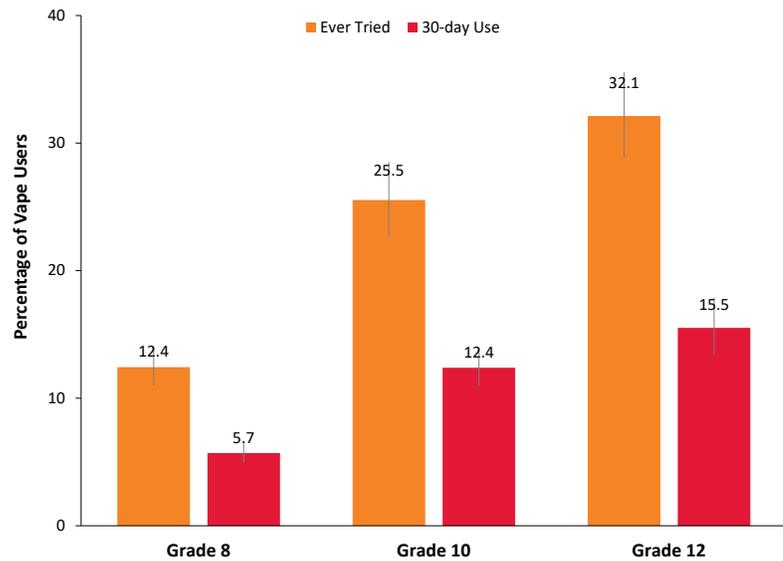
3. Best Practices for Comprehensive Tobacco Control Programs—2014. https://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/comprehensive.pdf.

4. Tobacco Control Network. 2016 Policy Recommendations Guide. <http://tobaccocontrolnetwork.org/wp-content/uploads/2016/07/TCN-2016-Policy-Recommendations-Guide.pdf>.

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Vape Experimentation and Use Among Students

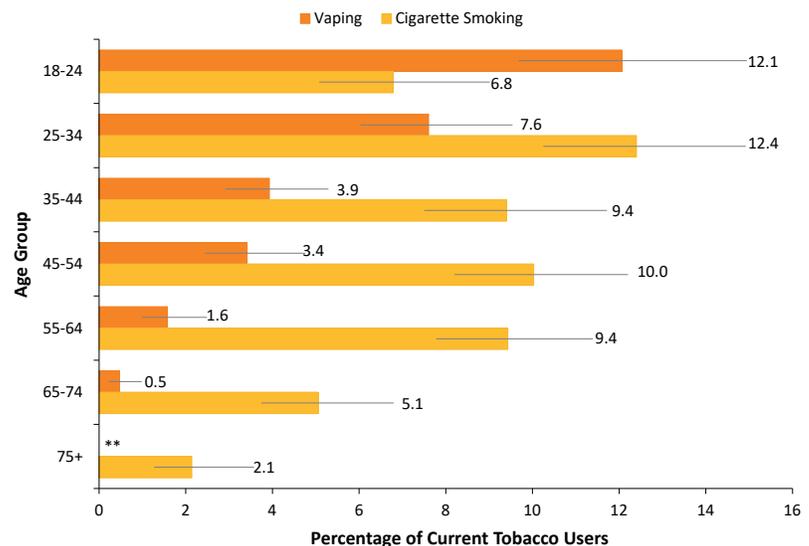
Figure 2. Vaping experimentation and current use of vape products among Utah students in grades 8, 10, and 12 by grade, 2017



Source: Utah Prevention Needs Assessment

Cigarette Smoking and Vaping Among Adults

Figure 3. Current cigarette smoking and vaping among Utah adults by age group, 2016



Source: Utah Behavioral Risk Factor Surveillance System

UDOH ANNOUNCEMENT:

The purpose of the Cannabinoid Product Board is to review available research and provide recommendations to prescribing physicians related to the use of cannabinoid products for treating medical conditions, dosage amounts, and identifying interactions with other treatments. The Board is composed of seven members and must comprise a mixture of medical researchers, physicians, and three of the Board members must be members of the Controlled Substances Advisory Committee (CSAC). For more information, visit <https://sites.google.com/utah.gov/cpboard>.

Breaking News, December 2017

Chronic Diseases and Birth Outcomes

Chronic diseases such as hypertension, diabetes, heart disease, and obesity put women at risk of pregnancy complications and adverse birth outcomes.

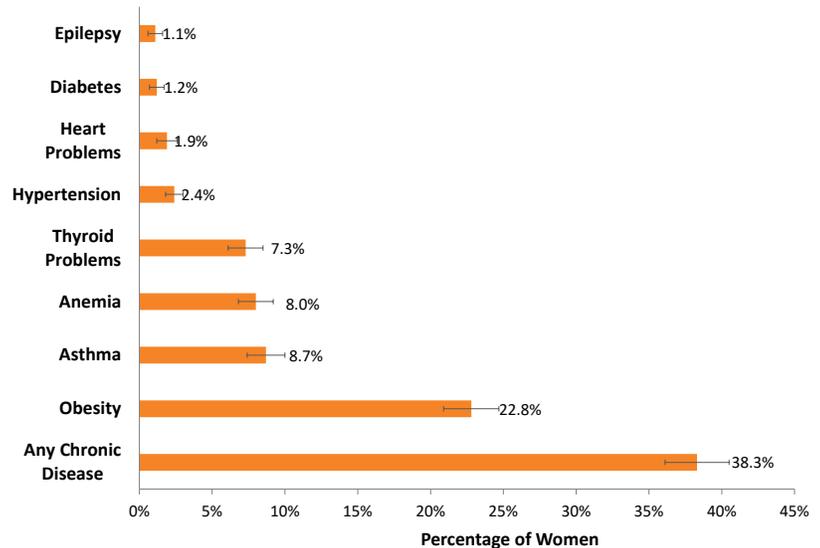
According to the Pregnancy Risk Assessment Monitoring System (PRAMS), in 2014 and 2015, about 38,122 Utah women who delivered a live infant had a chronic disease before becoming pregnant. Chronic diseases identified through PRAMS include anemia, asthma, diabetes (type I and II), epilepsy, heart problems, hypertension, obesity, and thyroid problems. The prevalence of these chronic diseases in Utah are shown in the accompanying figure.

According to PRAMS data from 2014–2015, chronic disease was associated with an increased risk of several adverse birth outcomes. The percentage of women having a preterm birth was 30% higher among women with any chronic disease compared to women without a chronic disease.

The percentage of women delivering by cesarean section was 40% higher among women with any chronic disease compared to women without a chronic disease. The percentage of women whose babies were admitted to a neonatal intensive care unit (NICU) was 44% higher among women with any chronic disease compared to women without a chronic disease.

Women with a chronic disease can minimize adverse birth outcomes by maintaining optimal health for their condition before pregnancy, having a preconception consultation with a healthcare provider, and managing their disease after becoming pregnant.

Percentage of Women with Chronic Diseases Before Pregnancy, Utah, 2014–2015



Source: Utah Pregnancy Risk Assessment Monitoring System

Community Health Spotlight, December 2017

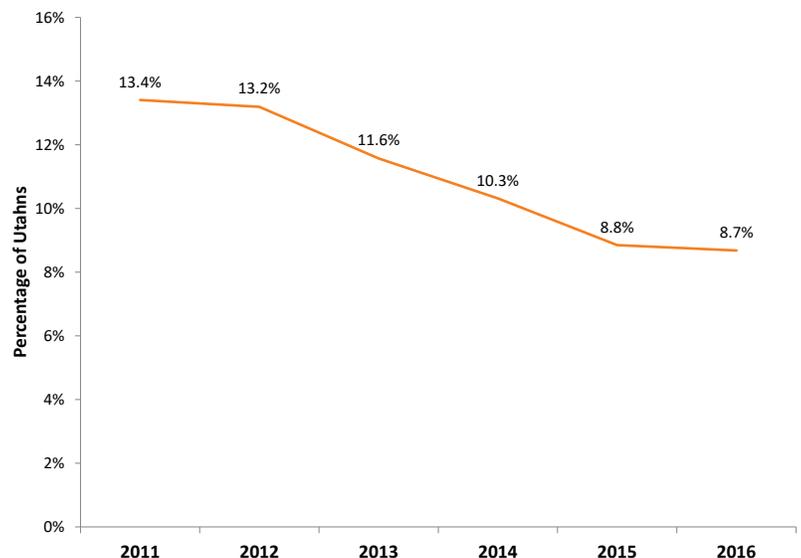
Uninsured Rate at Lowest Point in More than a Decade

The estimated overall rate of Utahns without health insurance remained the lowest it has been in more than 10 years at 8.7%. The decreasing trend over the last five years is significant. The 2016 rate of uninsured Utahns aged 19–26 was lower at 16% than the rate of 23.6% in 2011. Additionally, the number of Utah adults aged 19–64 that were self-employed and uninsured was at the lowest rate it has been in the last 10 years; decreasing from 29.1% in 2011 to 15.0% in 2016.

Estimates for the rate of uninsured in Utah come from the Behavioral Risk Factor Surveillance System (BRFSS), a survey that is conducted in all states and territories in partnership with the U.S. Centers for Disease Control and Prevention (CDC). Estimates are based on a sample of more than 5,000 Utahns. There are several surveys that collect data and estimate uninsured rates. These rates may vary based on differences in methodology. The estimates usually show the same trends. The Utah Department of Health uses BRFSS to create these estimates because it allows breakdown of the data by different geographic areas and demographics.

Access to healthcare is only one of the major factors to impact improved health. Improvements in using preventive and primary care as well as affordability of care are also needed.

Estimated Percentage of Uninsured Utahns, 2011–2016



Source: Utah Behavioral Risk Factor Surveillance System

Monthly Health Indicators Report

(Data Through October 2017)

Monthly Report of Notifiable Diseases, October 2017					
	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (<i>Campylobacter</i>)	15	47	490	448	1.1
Shiga toxin-producing <i>Escherichia coli</i> (<i>E. coli</i>)	2	11	103	81	1.3
Hepatitis A (infectious hepatitis)	28	0	75	7	10.4
Hepatitis B, acute infections (serum hepatitis)	0	1	10	7	1.4
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza				
Meningococcal Disease	0	0	1	3	0.3
Pertussis (Whooping Cough)	3	60	325	789	0.4
Salmonellosis (<i>Salmonella</i>)	20	28	344	306	1.1
Shigellosis (<i>Shigella</i>)	8	5	34	36	0.9
Varicella (Chickenpox)	10	21	161	200	0.8
West Nile (Human Cases)	2	0	56	7	8.0
Quarterly Report of Notifiable Diseases, 3rd Qtr 2017					
	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†	35	28	92	89	1.0
Chlamydia	2,598	2,097	7,586	6,202	1.2
Gonorrhea	668	366	1,863	935	2.0
Syphilis	29	17	85	50	1.7
Tuberculosis	2	10	21	24	0.9
Medicaid Expenditures (in Millions) for the Month of October 2017‡					
	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Mental Health Services§	\$ 17.0	\$ 17.9	\$ 52.5	\$ 53.5	\$ (1.0)
Inpatient Hospital Services	\$ 14.2	\$ 15.3	\$ 60.5	\$ 62.2	\$ (1.7)
Outpatient Hospital Services	\$ 3.3	\$ 3.4	\$ 13.9	\$ 15.5	\$ (1.6)
Nursing Home Services	\$ 14.2	\$ 16.9	\$ 55.1	\$ 59.7	\$ (4.6)
Pharmacy Services	\$ 9.3	\$ 9.2	\$ 39.9	\$ 40.9	\$ (1.0)
Physician/Osteo Services	\$ 4.0	\$ 4.0	\$ 18.3	\$ 18.8	\$ (0.6)
Medicaid Expansion Services	\$ 1.8	\$ 2.0	\$ 6.6	\$ 7.4	\$ (0.8)
TOTAL MEDICAID#	\$ 197.3	\$ 198.4	\$ 825.3	\$ 830.8	\$ (5.4)

* Influenza-like illness is minimal in Utah. As of October 28, 2017, 25 influenza-associated hospitalizations have been reported to UDOH since the start of the influenza season on October 1, 2017. More information can be found at <http://health.utah.gov/epi/diseases/influenza/surveillance/index.html>.

Program Enrollment for the Month of October 2017					
	Current Month	Previous Month	% Change** From Previous Month	1 Year Ago	% Change** From 1 Year Ago
Medicaid	281,676	282,629	-0.3%	290,097	-2.9%
PCN (Primary Care Network)	14,332	14,568	-1.6%	15,547	-7.8%
CHIP (Children's Health Ins. Plan)	19,439	19,424	+0.1%	18,584	+4.6%
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 (2015)	291,216	8.8%	+2.9%	\$ 7,965.1	+9.4%
Non-maternity Hospitalizations (2015)	188,130	5.5%	+1.9%	\$ 6,838.5	+10.3%
Emergency Department Encounters (2015)	737,578	22.7%	+7.4%	\$ 1,878.3	+6.7%
Outpatient Surgery (2015)††	487,945	14.9%	+4.9%	\$ 3010.3	+38.9%
Annual Community Health Measures					
	Current Data Year	Number Affected	Percent/Rate	% Change** From Previous Year	State Rank** (1 is best)
Obesity (Adults 18+)	2016	538,700	25.3%	+3.3%	10 (2016)
Cigarette Smoking (Adults 18+)	2016	187,400	8.8%	-3.3%	1 (2016)
Influenza Immunization (Adults 65+)	2016	176,300	54.9%	-6.9%	41 (2016)
Health Insurance Coverage (Uninsured)	2016	265,500	8.7%	-1.1%	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+)	2016	153,300	7.2%	+2.9%	8 (2016)
Poor Mental Health (Adults 18+)	2016	362,000	17.0%	+6.3%	21 (2016)
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%	13 (2015)
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)	2016	37,100	73.6%	0.0%	26 (2016)

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ This state fiscal year (SFY) 2018 report includes supplemental payments to better match the SFY 2018 Medicaid Forecast Budget which costs have not been included in previous years.

§ The SFY 2018 Medicaid Forecast Budget includes Mental Health and Substance Abuse services together while this report only accounts for Mental Health services. This is to stay consistent with the previous years reports.

Medicaid Expansion Services was added to the Medicaid program in SFY 2018. Total Medicaid costs exclude the Prism Project.

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

†† Change was calculated from 2013 to 2015 for outpatient surgery.

** 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 2018 season.