Utah Health Status Update

KEY FINDINGS

- **Innovative designs, sweet flavors, and targeted marketing using social and digital media have been linked to high vape rates among youth and young adults.[1,2]**
- **Utah youth vaping increased from 1.9% in 2011 to 10.5% in 2015, with a more modest increase to 12.4% in 2019.[3]**
- **Utah vape rates are highest among older teens (15.1% for those ages 16–17)[3] and young adults (14.6% for those ages 18–24).[4]**
- **To address the rapid rise in vape product use among Utah youth, the Utah Department of Health has proposed rule R384-418 – Electronic-Cigarette Mandatory Nicotine Warning Signage and Sale Restrictions.**

UTAH DEPARTMENT OF HEALTH

Vaping and the Increased Risk for Youth Nicotine Addiction

Since their introduction to the U.S. market in 2006, electronic cigarettes (or vape devices) have become extremely popular, especially among youth and young adults. Early electronic cigarettes (cig-a-likes) mimicked the look of cigarettes and were mainly intended to serve as smoking cessation devices. However, these products quickly evolved into devices that could be customized and re-filled with flavored e-liquid. The e-liquid flavors frequently use the names and taste of popular desserts, candy, or fruit. The latest designs (pods) resemble USB flash drives, lipstick tubes, necklaces, or other household items that can be easily concealed (Figure 1).

Evolution of E-cigarettes

Figure 1. The look of electronic cigarettes has evolved from mimicking cigarettes to resembling common household items.

Image credit: Community Anti-Drug Coalitions of America (CADCA), Research Into Action Webinar: Tobacco Retail Licensing and Youth E-cigarette and Other Tobacco Product Use.

Innovative designs, sweet and minty flavors, and targeted marketing using social and digital media have been linked to high vape rates among youth and young adults.[1,2]

Utah Vape Trends

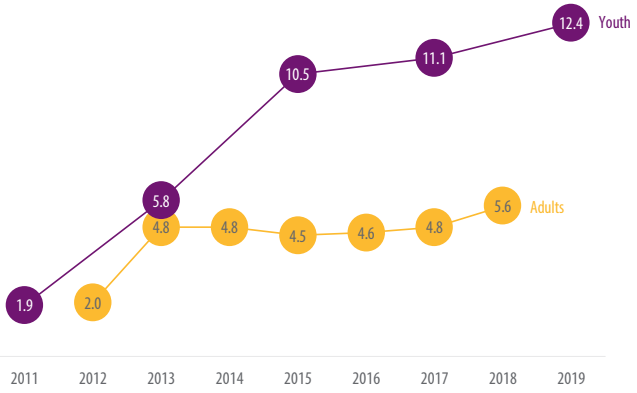
In Utah, youth vaping increased from 1.9% in 2011 to 10.5% in 2015, with a more modest increase to 12.4% in 2019.[3] Nearly 25% of Utah students in grades 8, 10,

Feature article continued

and 12 have tried vaping.[3] In comparison, only 5.6% of Utah adults currently use vape products and 18.4% ever tried vaping[4] (Figure 2).

Utah Trends in Youth and Adult Vaping

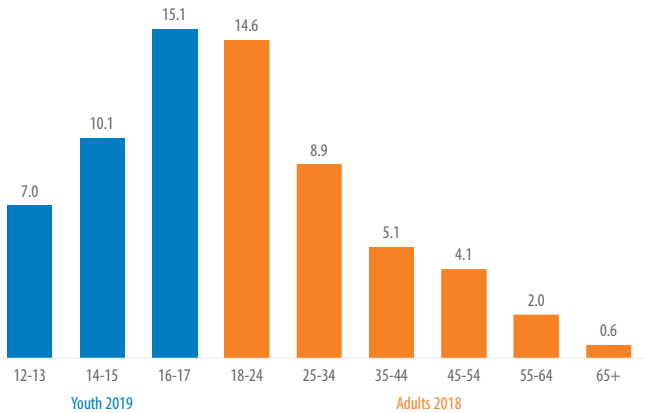
Figure 2. Youth vaping increased from 1.9% to 12.4% from 2011 to 2019; comparatively, only 5.6% of adults report current vaping.



Even though Utah law prohibits the sale of vape products to people under the age of 19, 16- to 17-year-olds report the highest rate of vaping (15.1%) among all surveyed age groups (Figure 3).[3] More than 70% of Utah teens who currently use a tobacco product tried a vape product first.[3] Among adults, vaping is most common among 18- to 24-year-olds and least common among adults aged 65 and older.[4]

Utah Vape Rates (Percentages) by Age Group

Figure 3. Utah vape rates are highest among older teens and young adults.



Nicotine Addiction

The rapid rise in youth vaping is particularly concerning because most Utah youth who vape use products that contain nicotine.[3] Nicotine is highly addictive and has been shown to interfere with adolescent brain development. Research on the long-term effects of vaping is still limited; however, even a brief period of intermittent or continuous nicotine exposure can have lasting effects on cognitive abilities and mental health and increase susceptibility to other addictions later in life.[5]

Health Effects

In addition to water, e-liquids contain a mix of solvents (typically propylene glycol and glycerin) and flavorings. The long-term effects of inhaling heated and aerosolized solvents, flavoring chemicals, and other carbonyl and volatile organic compounds are unknown. In addition, the use of larger batteries capable of heating liquids to higher temperatures has been linked to the formation of new toxicants such as formaldehyde.[6]

Vaping devices lack regulations or standardization in their designs and can be customized by their users to deliver drugs other than nicotine. Both tank systems and vape devices that can be refilled with cartridges have been linked with THC and marijuana use.[6] Contaminated vape cartridges that contained THC were identified as the cause for a serious lung disease epidemic in 2019 that led to 134 hospitalizations in Utah and more than 50 deaths in the United States.

Policy Recommendations

Regulations that make it harder for youth to access tobacco products are part of evidence-based practices in tobacco prevention and control and are expected to reduce youth use of vape products.[6] Such regulations include:

1. Increasing the price of tobacco and vape products through excise taxes
2. Limiting the total number of tobacco retailers

3. Restricting where flavored tobacco and vape products are sold

Tobacco taxes are especially effective in reducing tobacco use among younger age groups since youth and young adults are two to three times more likely to respond to changes in tobacco product prices than adults.[7] Limiting the number of total tobacco retailers in a local area has been shown to reduce youth experimentation with tobacco and assist tobacco users with quitting. Flavors hide the harsh taste of tobacco and make it easier for youth to try tobacco products. Since more than 80% of youth who use tobacco started with flavored products, flavor restrictions are expected to reduce youth tobacco initiation.[8] Following a ban of flavored tobacco products in New York City in 2014, and a subsequent decrease in flavored tobacco product sales, numerous cities and counties in Massachusetts, Rhode Island, Illinois, and California enacted flavor bans or restrictions. Flavor restrictions either ban flavored tobacco sales near schools or limit the sale of flavored tobacco to adult-only retail tobacco stores.[8]

To address the rapid rise in vape product use among Utah youth, the Utah Department of Health (UDOH) has proposed rule R384-418 – Electronic Cigarette Mandatory Nicotine Warning Signage and Sale Restrictions. The proposed new rule would require all tobacco retailers that choose to sell electronic cigarette products or electronic cigarette substances to display mandatory nicotine warning signs (Figure 4). It would also restrict the sale of flavored electronic cigarette products and electronic cigarette substances to age-restricted retail tobacco stores. The UDOH is seeking public comment on the proposed rule to be submitted to tobaccorulescomments@utah.gov until the close of business on Friday February 28, 2020. Each comment will receive a written response and will become a part of the public record. The UDOH will keep contact information confidential.

Mandatory Nicotine Warning Sign

Figure 4. The proposed new rule would require all tobacco retailers that choose to sell electronic cigarette products or electronic-cigarette substances to display mandatory nicotine warning signs.

1. Huang, L., Baker H. et al. Impact of non-menthol flavours in tobacco products on perceptions and use among youth, young adults and adults: a systematic review. Tobacco Control. 2017 (26) 709–719.
2. Huang, J., Duan, Z. et al. Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market. Tobacco Control. 2018 (0) 1-6.
3. Student Health and Risk Prevention (SHARP) Survey, 2011 to 2019 (odd years). Salt Lake City: Utah Department of Human Services, Utah Department of Health, and Utah State Board of Education.
4. Behavioral Risk Factor Surveillance System (BRFSS), 2012 to 2018. Salt Lake City: Utah Department of Health.
5. Goriounova, N., Mansvelder, H. Nicotine Exposure During Adolescence Alters the Rules for Prefrontal Cortical Synaptic Plasticity During Adulthood. 2012. Frontiers in Synaptic Neuroscience.
6. U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
7. U.S. Department of Health and Human Services. Reducing Tobacco Use: A Report of the Surgeon General.Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000.
8. Truth Initiative. Flavored Tobacco Use Among Youth and Young Adults. Retrieved on January 28, 2020 from https://truthinitiative.org/research-resources/emerging-tobacco-products/flavored-tobacco-use-among-youth-and-young-adults.

Spotlights

Accessing Primary Care: The Unheard Voices

In 2019, staff with the Utah Department of Health Office of Health Disparities (OHD) conducted a qualitative study to evaluate one of its programs and to better understand challenges faced by Utah urban underserved communities in establishing a primary care provider. Thirty-five people from the neighborhood of Glendale (SLC) and the city of South Salt Lake participated in six focus groups. We encountered an array of participants: American-born, first-generation immigrants, refugees, single mothers, single grandparents, married couples, individuals experiencing homelessness, diverse races/ethnicities, etc. We found out access to health care is just the tip of the iceberg. The main portion of this iceberg is concealed beneath a system of structural inequities that must be addressed in order to improve the health of our communities.

Key takeaways

1. Cost is the main barrier: Most participants live paycheck to paycheck, they do not have access to disposable income; and access to health care is perceived as a commodity not as a priority.
2. Understanding a complicated system: Participants linked the term primary care provider (PCP) with having health insurance. Participants were fulfilling their primary care needs at free clinics, but did not see them as their PCP.
3. Trust: There was a lack of trust in the health care system in general; many lacked trust in the care they received at free clinics.
4. Stress: Financial concerns, challenging family situations, and rearing children under stressful circumstances fill out their day-to-day routine without leaving space or time for thinking about health.

A detailed report of the study will be available in late February 2020 at https://health.utah.gov/disparities/data.html.

UTAH DEPARTMENT OF HEALTH

DATA THROUGH **DECEMBER 2019**

Monthly Health Indicators

Monthly Report of Notifiable Diseases, December 2019	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)*	43	28	571	532	1.1
Shiga toxin-producing *Escherichia coli (E. coli)*	9	5	181	121	1.5
Hepatitis A (infectious hepatitis)	0	10	19	65	0.3
Hepatitis B, acute infections (serum hepatitis)	1	1	28	17	1.7
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza				
Meningococcal Disease	0	0	3	2	1.4
Pertussis (Whooping Cough)	5	27	334	463	0.7
Salmonellosis *(Salmonella)*	17	21	319	383	0.8
Shigellosis *(Shigella)*	21	4	75	53	1.4
Varicella (Chickenpox)	14	21	159	222	0.7
Quarterly Report of Notifiable Diseases, 4th Qtr 2019	**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†	31	28	127	124	1.0
Chlamydia	2,652	2,354	11,049	9,392	1.2
Gonorrhea	759	546	2,847	2,107	1.4
Syphilis	33	26	137	99	1.4
Tuberculosis	8	7	27	27	1.0
Medicaid Expenditures (in Millions) for the Month of December 2019	**Current Month**	**Expected/ Budgeted for Month**	**Fiscal YTD**	**Budgeted Fiscal YTD**	**Variance over (under) Budget**
Mental Health Services	$ 7.0	$ 6.8	$ 83.7	$ 84.9	$ (1.1)
Inpatient Hospital Services	12.9	13.2	72.6	74.2	(1.6)
Outpatient Hospital Services	2.4	2.5	19.7	21.0	(1.3)
Nursing Home Services	45.0	44.8	133.0	134.3	(1.3)
Pharmacy Services	9.1	9.0	58.4	59.8	(1.4)
Physician/Osteo Services‡	3.2	3.2	29.8	30.7	(0.9)
Medicaid Expansion Services	51.1	50.8	223.4	224.5	(1.1)
TOTAL MEDICAID	**276.9**	**276.3**	**1,530.8**	**1,533.2**	**(2.4)**

* Hospitalizations have continued to increase—407 have been reported so far this season. The overall severity is considered "high" becasue of high levels of influenza-like Illness and positive laboratory results. However, the number of hospitalizations and pneumonia and influenza deaths are about normal for this time of year. More information and weekly reports can be found at http://health.utah.gov/epi/diseases/influenza/surveillance/index.html.

† Diagnosed HIV infections, regardless of AIDS diagnosis. ‡ Medicaid payments reported under Physician/Osteo Services does not include enhanced physician payments.

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 2020 season.

UTAH DEPARTMENT OF HEALTH

DATA THROUGH **DECEMBER 2020**

Monthly Health Indicators

Program Enrollment for the Month of December 2019	Current Month	Previous Month	% Change§ From Previous Month	1 Year Ago	% Change§ From 1 Year Ago
Medicaid	287,546	287,382	+0.1%	265,150	+8.4%
CHIP (Children's Health Ins. Plan)	17,142	17,123	+0.1%	18,054	-5.1%
Commercial Insurance Payments#	**Current Data Year**	**Number of Members**	**Total Payments**	**Payments per Member per Month (PMPM)**	**% Change§ From Previous Year**
Medical	2018	10,355,207	$ 3,146,492,372	$ 303.86	-0.9%
Pharmacy	2018	8,195,234	543,507,290	66.32	+3.6%
Annual Community Health Measures	**Current Data Year**	**Number Afflicted**	**Percent \ Rate**	**% Change§ From Previous Year**	**State Rank** (1 is Best)**
Obesity (Adults 18+)	2018	618,400	27.8%	+10.1%	13 (2018)
Child Obesity (Grade School Children)	2018	38,100	10.6%	+11.6%	n/a
Cigarette Smoking (Adults 18+)	2018	200,100	9.0%	+0.9%	1 (2018)
Vaping, Current Use (Grades 8, 10, 12)	2019	37,100	12.4%	+11.3%	n/a
Binge Drinking (Adults 18+)	2018	236,700	10.6%	-7.7%	1 (2018)
Influenza Immunization (Adults 65+)	2018	182,300	52.0%	-7.1%	16 (2018)
Health Insurance Coverage (Uninsured)	2018	300,300	9.5%	-3.1%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2018	239	7.6 / 100,000	-16.2%	14 (2017)
Drug Overdose Deaths Involving Opioids	2017	400	12.9 / 100,000	-7.2%	25 (2017)
Suicide Deaths	2018	665	21.0 / 100,000	-1.5%	46 (2017)
Unintentional Fall Deaths	2018	262	8.3 / 100,000	+14.8%	20 (2017)
Traumatic Brain Injury Deaths	2017	634	20.4 / 100,000	-8.4%	32 (2017)
Asthma Prevalence (Adults 18+)	2018	205,500	9.2%	+3.6%	21 (2018)
Diabetes Prevalence (Adults 18+)	2018	185,900	8.3%	+17.5%	12 (2018)
High Blood Pressure (Adults 18+)	2017	532,900	24.5%	+3.8%	3 (2017)
Poor Mental Health (Adults 18+)	2018	418,300	18.8%	+3.1%	20 (2018)
Coronary Heart Disease Deaths	2018	1,624	51.4 / 100,000	-5.8%	5 (2017)
All Cancer Deaths	2018	3,262	103.2 / 100,000	+1.3%	1 (2017)
Stroke Deaths	2018	919	29.1 / 100,000	+1.6%	21 (2017)
Births to Adolescents (Ages 15–17)	2018	363	4.9 / 1,000	-15.3%	13 (2017)
Early Prenatal Care	2018	35,975	76.2%	-1.0%	n/a
Infant Mortality	2018	255	5.4 / 1,000	-7.0%	24 (2017)
Childhood Immunization (4:3:1:3:3:1:4)††	2018	36,400	72.0%	+5.9%	22 (2018)

§ Relative percent change. Percent change could be due to random variation. # Figures subject to revision as new data is processed.
** State rank based on age-adjusted rates where applicable †† Data from 2018 NIS for children aged 24 months (birth year 2016).