

Utah Health Status Update:

Electronic Cigarette Use Among Utah Students (Grades 8, 10, and 12) and Adults

December 2013

In the past 15 years, Utah has seen significant declines in cigarette smoking among youth. As smoking rates have started to decrease, a variety of new tobacco and nicotine products have appeared in U.S. markets. These new products include updated versions of smokeless tobacco products, such as snus, as well as electronic or e-cigarettes. E-cigarettes are battery-powered devices that deliver doses of nicotine and other additives to the user in aerosol form. Currently, the contents and sale of electronic cigarettes are not regulated. Industry claims that electronic cigarettes are a safe alternative to conventional cigarettes are misleading due to insufficient data. Some e-cigarette cartridges have been shown to contain toxic substances such as irritants, genotoxins, and animal carcinogens.

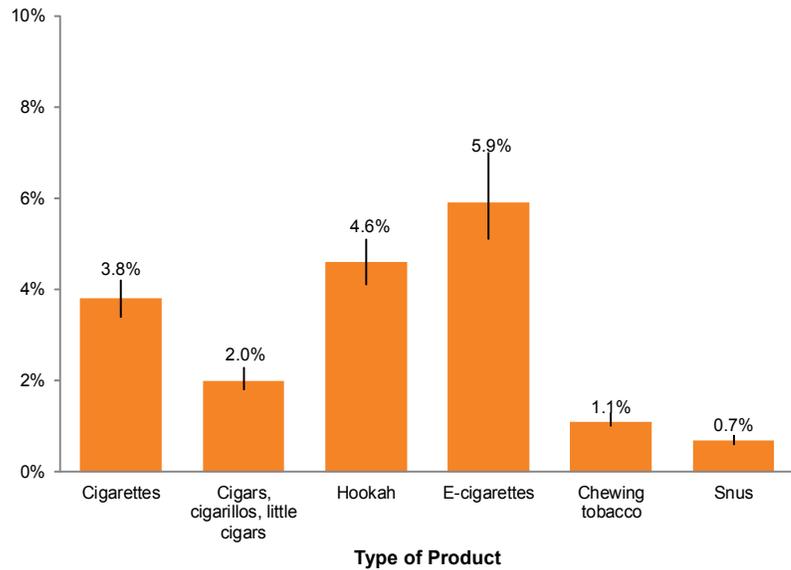
Due to safety concerns, candy-like flavors, and large-scale marketing campaigns, monitoring the increasing use of new tobacco products among youth is a public health priority.

Utah's largest school health and risk behavior survey, the Prevention Needs Assessment (PNA), is conducted in Utah schools in odd years with a sample of more than 50,000 students in grades 6, 8, 10, and 12. Recent PNA

- The percentage of Utah students in grades 8, 10, and 12 who reported that they had tried electronic cigarettes more than doubled from 2011 to 2013.
- Despite having no legal access to e-cigarettes, Utah youth are three times more likely to report current use than adults.
- Nearly one third of Utah youth who used e-cigarettes in the past 30 days report that they never tried conventional cigarettes.
- Due to candy-like flavors, aggressive marketing, and lack of data regarding safety, monitoring the increasing use of e-cigarettes among youth is a public health priority.

Current Tobacco or Nicotine Product Use

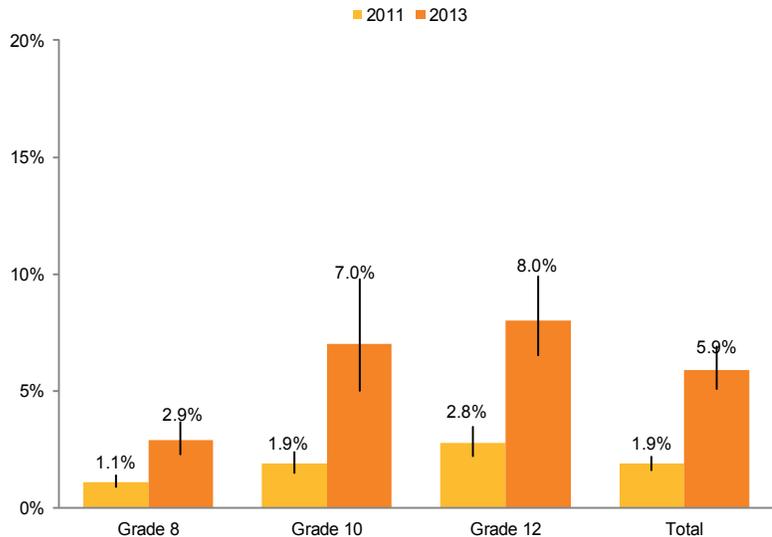
Figure 1. Percentage of students reporting use of tobacco or nicotine products by type of product, Grades 8, 10, 12, Utah, 2013



Source: Utah Prevention Needs Assessment, 2013

Current Electronic Cigarette Use

Figure 2. Percentage of students reporting e-cigarette use by grade and year, Grades 8, 10, 12, Utah, 2011 and 2013



Source: Utah Prevention Needs Assessment, 2011 and 2013

data show that Utah students (grades 8, 10, 12) are more likely to report that they used electronic cigarettes in the past 30 days than any other tobacco product (Figure 1).

The percentage of Utah students in grades 8, 10, and 12 who reported that they had tried electronic cigarettes more than doubled from 2011 to 2013. Current use tripled from 2011 to 2013 (Figure 2).

Since nicotine is highly addictive and most adult smokers become addicted to nicotine before the age of 19, the increasing rates of e-cigarette use among youth are alarming. **Despite having no legal access to e-cigarettes, Utah youth are three times more likely to report current use than adults.** In 2012, 1.9% of Utah adults were current users of e-cigarettes compared to 5.9% of Utah students in grades 8, 10, and 12 who reported e-cigarette use in the past 30 days (2013) (Figure 3).

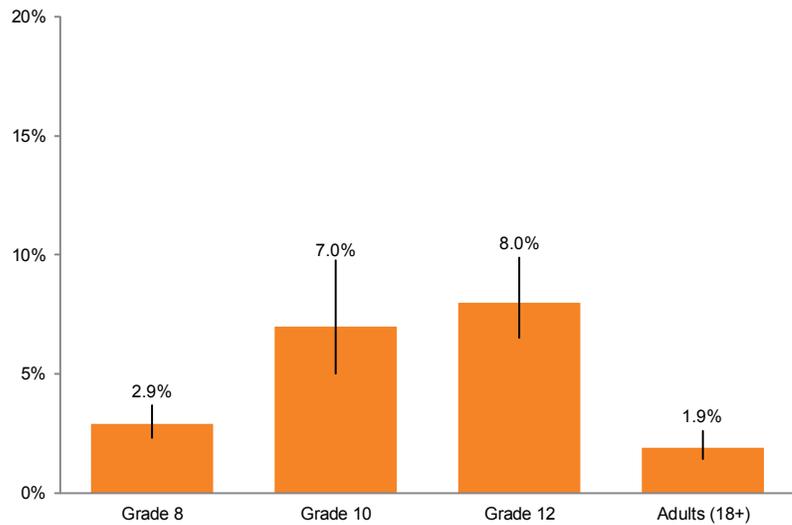
Older teenagers and young adults are at greater risk for e-cigarette experimentation than older adults. In 2013, one out of six high school seniors reported that they had tried e-cigarettes. Data from the 2012 Behavioral Risk Factor Surveillance System (BRFSS) show that one in six adults ages 18 to 24, and one in seven adults ages 25-34, have experimented with e-cigarettes. Among older adults, (ages 35+), e-cigarette experimentation dropped to less than one in 18.

PNA data also show that 31.7% percent of students who reported ever using e-cigarettes say they have never tried conventional cigarettes. This raises concerns that electronic cigarettes could serve as a gateway drug for conventional cigarettes.

Use of e-cigarettes among Utah youth varies by local health district. Students from Central Utah and Utah County Health Districts report the lowest rates of use at 1.8%, while students from Weber-Morgan report the highest rate of use at 19.9% (Figure 4).

Current Electronic Cigarette Use

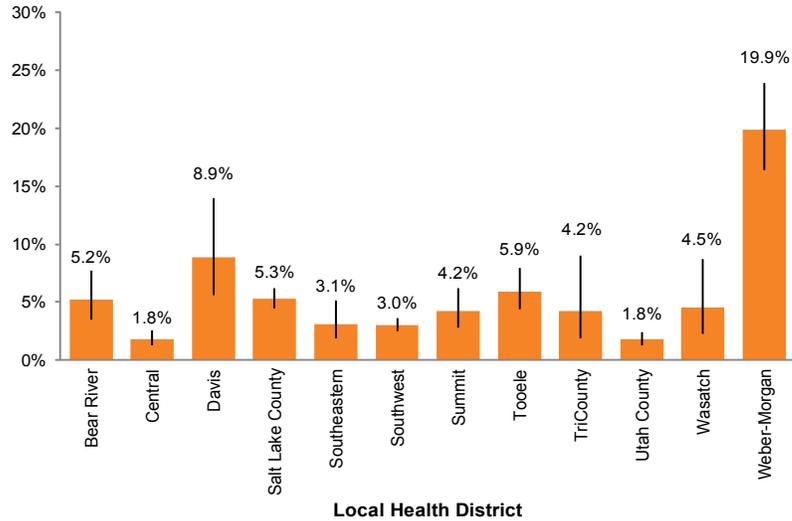
Figure 3. Percentage of students, Grades 8, 10, 12 in 2013 and Adults, 18+ in 2012, reporting current e-cigarette use, Utah



Source: Utah Prevention Needs Assessment, 2013, and Utah Behavioral Risk Factor Surveillance System, 2012

Current Electronic Cigarette Use

Figure 4. Percentage of students reporting current e-cigarette use by local health district, Grades 8, 10, 12, Utah, 2013



Source: Utah Prevention Needs Assessment, 2013

December 2013 Utah Health Status Update

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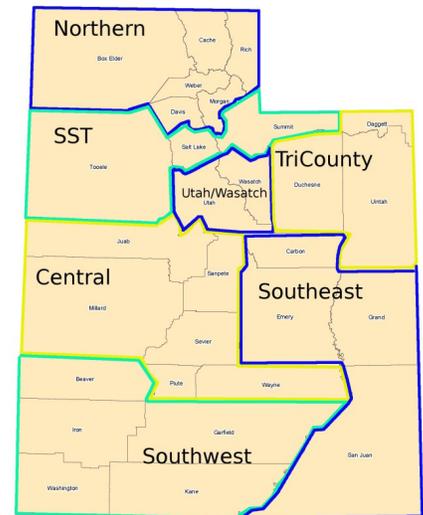
Breaking News, December 2013

Health Preparedness

The Utah Department of Health, through the Bureau of EMS and Preparedness, has actively engaged local medical providers, EMS agencies, public health departments, and emergency management in the development of Regional Medical Surge Coalitions (RMSCs). RMSCs develop plans and partnerships in multi-county areas across the state to address preparedness, mitigation, response to, and recovery from disaster and medical surge events. Currently, seven RMSCs are in place in Utah. These Coalitions, hosted primarily by local health departments, conduct the following activities to support local and regional preparedness:

- Engage partners that have a role in medical surge response and health system continuity;
- Conduct regional hazards and threat assessment, including identification of unique risks within regional boundaries;
- Develop Regional Medical Surge Response Plans to provide operational protocols, assignment of response roles for various partners, and clarification of sharing agreements within the region;
- Ensure medical facility and health care provider inclusion in jurisdictional Emergency Operations Center activity;
- Provide opportunities for training and participation in exercise events to build skills and test the capacity of the health care system to respond to medical surge events;
- Develop caches of medical equipment for use by impacted health care facilities during a disaster or medical surge event; and
- Increase coordination between traditional public health disaster response activity and medical facility response to events.

Utah's Regional Medical Surge Coalitions



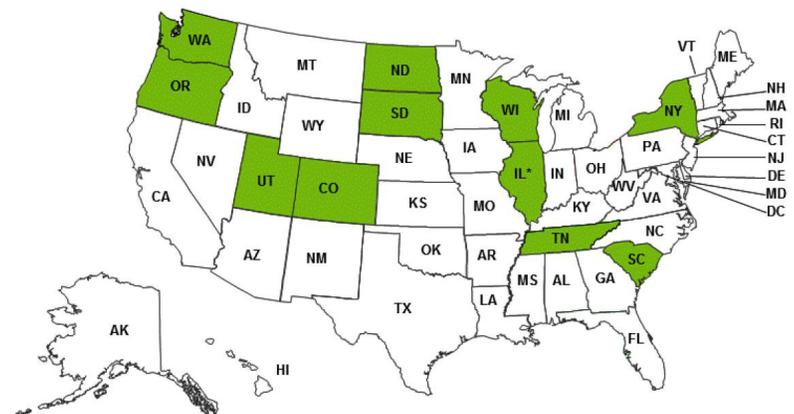
Community Health Indicators Spotlight, December 2013

MDRO Detection and Prevention Collaborative

The Utah Department of Health is participating in a Multi-drug Resistant Organism (MDRO) Detection and Prevention Collaborative with eight of Utah's health care corporations or hospitals. MDROs are organisms that have become resistant to the antibiotics used to treat them. This means that a particular antibiotic is no longer able to kill or control the organism. One goal of the collaborative is to prevent transmission of these hard-to-treat infections by developing and implementing a Patient Transfer Protocol to ensure communication between health care facilities. This communication will reduce the spread of MDROs within facilities, and ensure proper prevention protocols are established prior to the patient being admitted to the receiving facility. In order to increase this communication, the Collaborative has created "Isolation Precaution" stickers to be placed on a patient who may have an MDRO or other signs of infection.

Another achievement of the MDRO Collaborative is the successful addition of three MDROs, *Acinetobacter*, *Klebsiella*, and *E. coli* species, to the Utah Communicable Disease reporting rule. These organisms have intermediate resistance or complete resistance to any of the carbapenem antibiotics. They are referred to as CREs (carbapenem-resistant *Enterobacteriaceae*) and are on the rise in medical facilities but not currently endemic to Utah. Utah is one of 11 states requiring these types of organisms be reported.

States with CRE Reporting Requirements



■ Statewide CRE Reporting

*Illinois CRE reporting is effective November 1, 2013

Source: http://www.apic.org/Resource/TinyMceFileManager/Advocacy-PDFs/CRE_ReportingRequirements_Final.pdf

Monthly Health Indicators Report

(Data Through October 2013)

Monthly Report of Notifiable Diseases, October 2013	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)	21	31	442	366	1.2
Shiga toxin-producing Escherichia coli (E. coli)	5	10	98	109	0.9
Hepatitis A (infectious hepatitis)	1	1	10	7	1.4
Hepatitis B, acute infections (serum hepatitis)	0	1	2	9	0.2
Meningococcal Disease	0	0	7	5	1.5
Pertussis (Whooping Cough)	21	55	909	485	1.9
Salmonellosis (Salmonella)	28	22	280	283	1.0
Shigellosis (Shigella)	3	4	22	36	0.6
Varicella (Chickenpox)	13	42	181	391	0.5
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/flu				
Quarterly Report of Notifiable Diseases, 3rd Qtr 2013	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†	27	25	90	82	1.1
Chlamydia	1,931	1,721	5,651	5,070	1.1
Gonorrhea	291	100	633	284	2.2
Syphilis	20	9	63	26	2.4
Tuberculosis	10	6	28	24	1.2
Medicaid Expenditures (in Millions) for the Month of October 2013	Current Month	Expected/Budgeted‡ for Month	Fiscal YTD	Budgeted‡ Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 9.1	\$ 12.2	\$ 44.1	\$ 44.3	\$ (0.2)
Inpatient Hospital	\$ 9.6	\$ 15.5	\$ 43.8	\$ 74.1	\$ (30.3)
Outpatient Hospital	\$ 3.6	\$ 4.9	\$ 13.9	\$ 22.8	\$ (8.9)
Long Term Care	\$ 12.6	\$ 13.7	\$ 48.8	\$ 49.8	\$ (1.0)
Pharmacy ‡	\$ 8.2	\$ 14.9	\$ 32.9	\$ 55.6	\$ (22.7)
Physician/Osteo Services §	\$ 4.9	\$ 5.5	\$ 16.1	\$ 25.8	\$ (9.7)
TOTAL HCF MEDICAID	\$158.1	\$ 171.4	\$ 697.9	\$ 707.0	\$ (9.1)

Program Enrollment for the Month of October 2013	Current Month	Previous Month	% Change¶ From Previous Month	1 Year Ago	% Change¶ From 1 Year Ago
Medicaid	257,295	258,607	-0.5%	255,590	+0.7%
PCN (Primary Care Network)	15,094	15,485	-2.5%	15,110	-0.1%
CHIP (Children's Health Ins. Plan)	34,300	34,364	-0.2%	35,990	-4.7%
Health Care System Measures	Annual Visits			Annual Charges	
Overall Hospitalizations (2011)	Number of Events	Rate per 100 Population	% Change¶ From Previous Year	Total Charges in Millions	% Change¶ From Previous Year
Overall Hospitalizations (2011)	280,830	9.3%	+0.8%	\$ 5,818.8	+7.4%
Non-maternity Hospitalizations (2011)	175,847	5.7%	+3.8%	\$ 4,909.9	+7.9%
Emergency Department Encounters (2011)	665,925	22.4%	+1.7%	\$ 1,309.5	+12.8%
Outpatient Surgery (2011)	376,054	12.6%	+2.4%	\$ 1,878.5	+6.5%
Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change¶ From Previous Year	State Rank# (1 is best)
Obesity (Adults 18+)	2012	476,400	24.3%	-0.5%	10 (2012)
Cigarette Smoking (Adults 18+)	2012	207,300	10.6%	-10.8%	1 (2012)
Influenza Immunization (Adults 65+)	2012	147,100	56.0%	-1.5%	40 (2012)
Health Insurance Coverage (Uninsured)	2012	376,600	13.2%	-1.5%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2012	205	7.2 / 100,000	-16.8%	19 (2010)
Poisoning Deaths	2012	661	23.1 / 100,000	+15.6%	45 (2010)
Suicide Deaths	2012	545	19.1 / 100,000	+9.3%	45 (2010)
Diabetes Prevalence (Adults 18+)	2012	141,100	7.2%	+7.5%	14 (2012)
Poor Mental Health (Adults 18+)	2012	307,800	15.7%	-3.7%	12 (2012)
Coronary Heart Disease Deaths	2012	1,580	55.3 / 100,000	-3.4%	3 (2010)
All Cancer Deaths	2012	2,861	100.2 / 100,000	+3.3%	1 (2010)
Stroke Deaths	2012	793	27.8 / 100,000	+0.6%	17 (2010)
Births to Adolescents (Ages 15-17)	2012	668	10.4 / 1,000	-6.6%	11 (2011)
Early Prenatal Care	2012	38,829	75.5%	+1.0%	n/a
Infant Mortality	2012	248	4.8 / 1,000	-12.6%	10 (2010)
Childhood Immunization (4:3:1:3:3:1)	2012	40,000	74.9%	+5.3%	15 (2012)

* Influenza activity remains minimal in Utah. Influenza-like illness activity is below baseline statewide. More information can be found at <http://health.utah.gov/epi/diseases/flu>.

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ Includes only the gross pharmacy costs. Pharmacy Rebate and Pharmacy Part D amounts are excluded from this line item.

§ Physician/Osteo Services - Medicaid payments reported under Physician/Osteo Services does not include enhanced physician payments.

¶ % 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 2014 season.