

Electronic Cigarette Use in Utah

Data Update
February 2016



Utah Department of Health
Tobacco Prevention and Control Program

Acknowledgement

This report is based on the NCHS Data Brief No. 217 - Electronic Cigarette Use Among Adults: United States, 2014 by Shoenborn C. and Gindi R. (<http://www.cdc.gov/nchs/data/databriefs/db217.pdf>). The data presented in this report are specific to Utah.

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Background and Next Steps

Background

Since 2011, Utah has seen a sharp increase in the use of electronic cigarettes and other vape products. Electronic cigarettes are battery-powered devices that typically deliver nicotine in the form of an aerosol. They are marketed under many names, but are most commonly referred to as electronic cigarettes, e-cigarettes, mods, tanks, or vape pens.

Current use of electronic cigarettes and other vape products among Utah youth has grown five-fold from 1.9% in 2011 to 10.5% in 2015.¹ Nicotine use during adolescence affects brain development and can impact attention, learning, and susceptibility to other additions.² Availability of fruit and candy-like e-juice flavors and widespread, unregulated advertising may contribute to the popularity of vape products among youth.

While electronic cigarette use among Utah youth continues to grow, use of electronic cigarettes among Utah adults remained unchanged from 2013 to 2014. When Utah began to assess electronic cigarette use among adults in 2012, 1.9% of Utah adults reported that they were currently using these products. In 2013 and 2014, Utah adults reported a consistent rate of electronic cigarette use of 4.8%.³

This report summarizes data related to electronic cigarette use collected through the Behavioral Risk Factor System (BRFSS) and the School Health and Risk Prevention (SHARP) survey. The BRFSS is the primary data source for adult health behaviors in Utah. Data are collected through an annual statewide telephone survey. The SHARP survey is a school-based paper and pencil survey. It is conducted in the spring of odd years in Utah public schools. This report includes responses from Utah students in grades 8, 10, and 12.

Public Health Recommendations

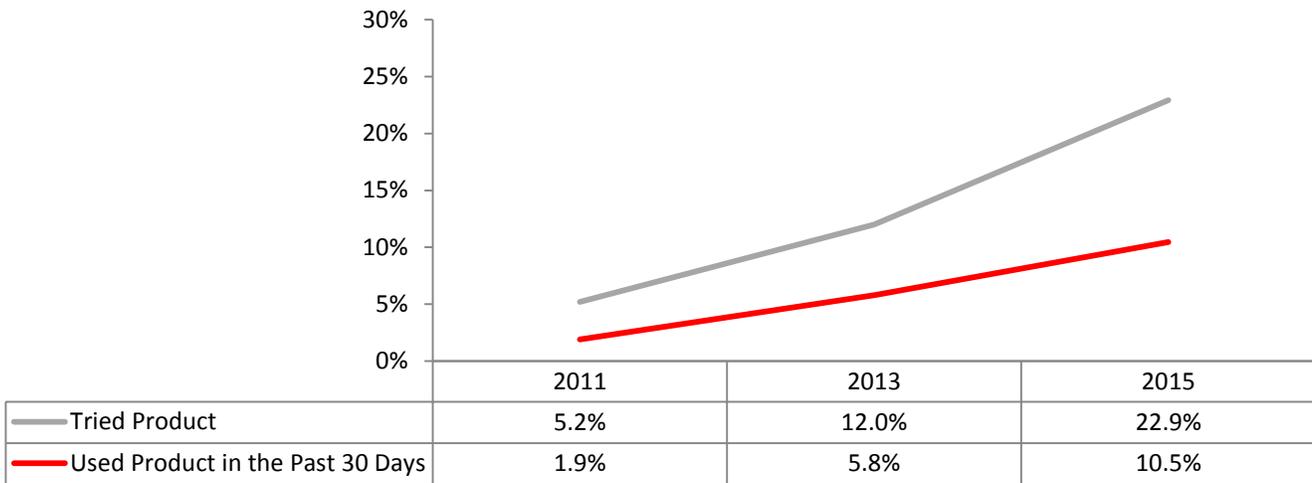
Based on best practices to decrease cigarette smoking, the Tobacco Prevention and Control Program at the Utah Department of Health recommends the following strategies to limit the growth in electronic cigarette use among youth:

- Stronger enforcement of existing laws that regulate youth access to electronic cigarettes
- Price increases for vape products
- Restricting locations where electronic cigarettes can be sold
- Restricting advertising directed toward youth
- Maintaining comprehensive statewide tobacco prevention and control

Trends in Experimentation and Use

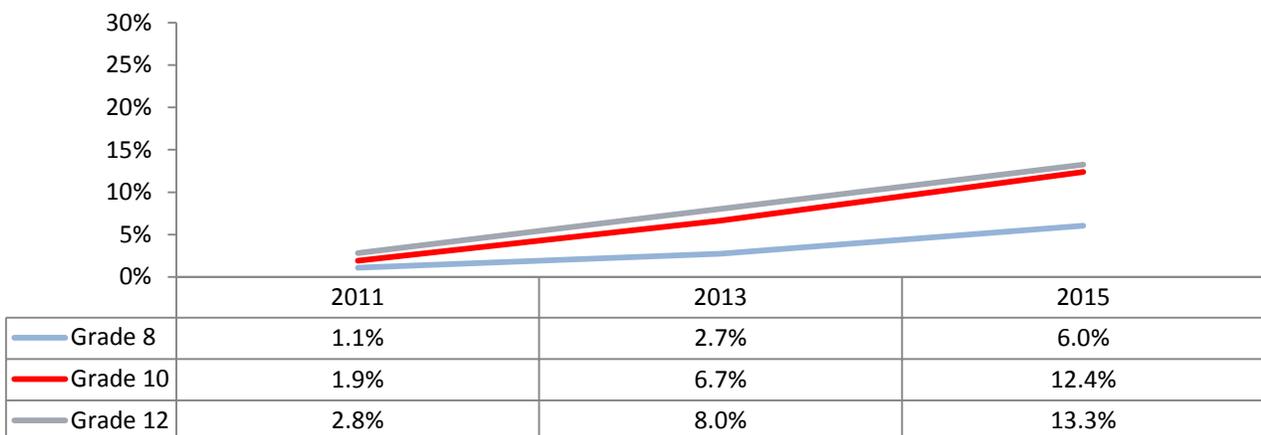
Youth experimentation with e-cigarettes increased from 5.2% in 2011 to 22.9% in 2015. In 2015, one out of five students in grades 8, 10, and 12 had tried e-cigarettes. Current use (use in the past 30 days) increased from 1.9% to 10.5%. In 2015, one out of eight students in grades 10 and 12 used e-cigarettes in the past 30 days.¹

Figure 1: Percentage of Students (Grades 8, 10, 12) Who Tried Electronic Cigarettes or Used Electronic Cigarettes in the Past 30 Days by Year, Utah, 2011, 2013, and 2015.¹



Between 2011 and 2015, current use of electronic cigarettes increased from 1.1% to 6.0% among 8th graders, 1.9% to 12.4% among 10th graders, and 2.8% to 13.3% among 12th graders.¹

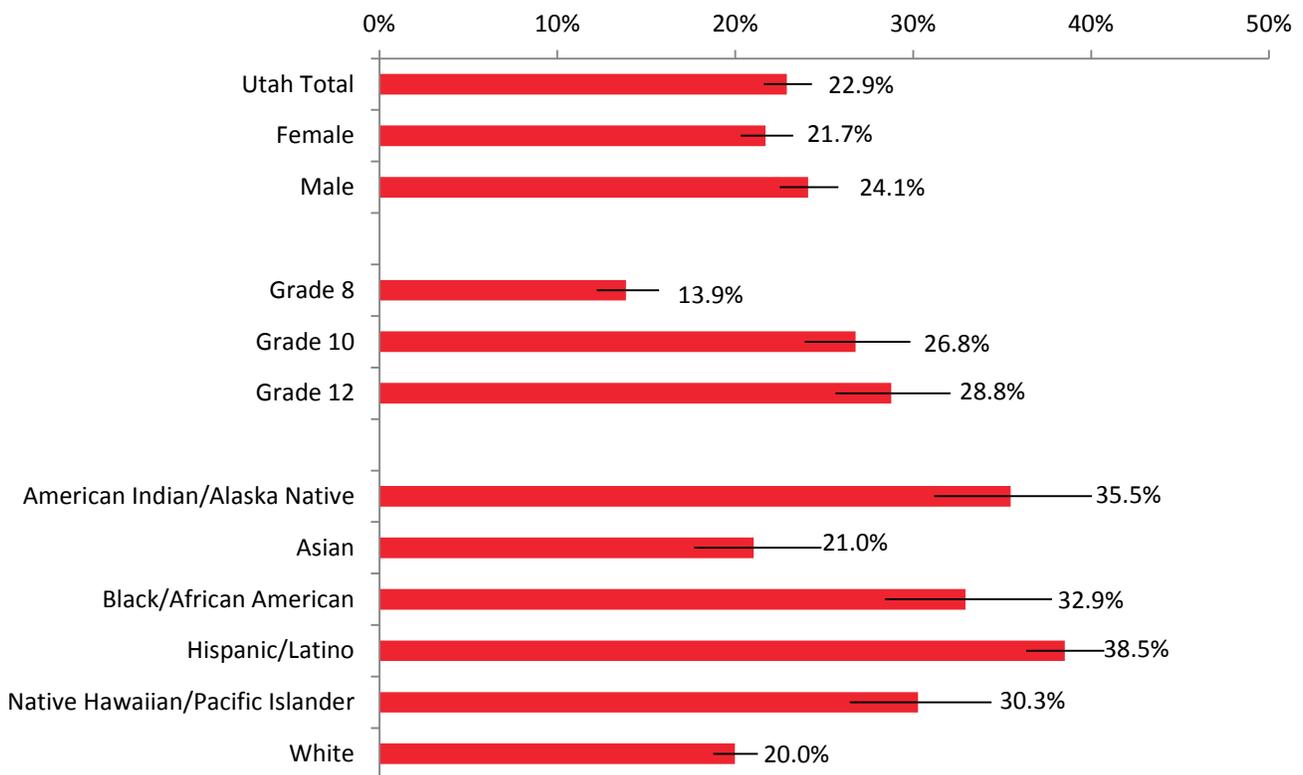
Figure 2: Percentage of Students (Grades 8, 10, 12) Who Used Electronic Cigarettes in the Past 30 Days by Grade, Utah, 2011, 2013, and 2015.¹



Experimentation with Electronic Cigarettes

In 2015, 22.9% of Utah students in grades 8, 10, and 12 had ever tried electronic cigarettes or e-cigarettes. Experimentation with e-cigarettes varied by grade, race, and ethnicity. At 26.8% and 28.8% respectively, students in grades 10 or 12 were more likely to report that they had tried e-cigarettes than students in 8th grade (13.9%). In addition, Hispanic/Latino students (38.5%) and students who identified as American Indian/Akaska Native (35.5%), Black/African American (32.9%) and Native Hawaiian/Pacific Islander (30.3%) were more likely to report experimentation with e-cigarettes than Asian (21.0%) and White students (20.0%).¹

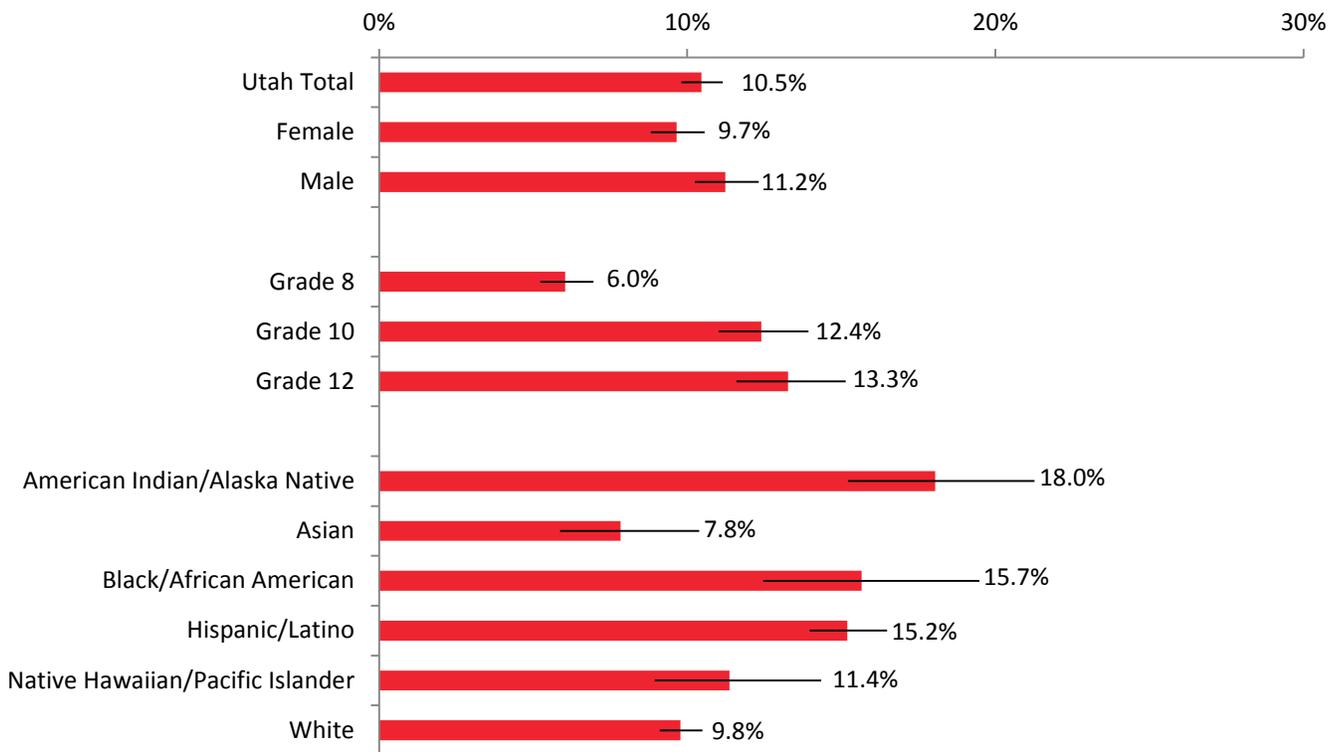
Figure 3: Percentage of Youth (Grades 8, 10, 12) Who Tried Electronic Cigarettes by Sex, Grade in School, and Race/Ethnicity, Utah, 2015.¹



Current Use of Electronic Cigarettes

In 2015, 10.5% of Utah students in grades 8, 10, and 12 reported that they had used electronic cigarettes in the past 30 days. Male and female students reported comparable rates of electronic cigarette use. However, use of electronic cigarettes varied by grade, ethnicity, and race. Students in 10th and 12th grade (12.4% and 13.3% respectively) were more likely to report that they had used electronic cigarettes in the past 30 days than students in 8th grade (6.0%). At 18.0%, American Indian/Alaska Native students reported the highest rate of electronic cigarette use, followed by Black/African American students (15.7%) and Hispanic students (15.2%). Asian (7.8%) and White students (9.8%) reported the lowest rates of electronic cigarette use.¹ In 2014, the current e-cigarette use rate for high school students (grades 9-12) nationwide was 13.4%.⁵

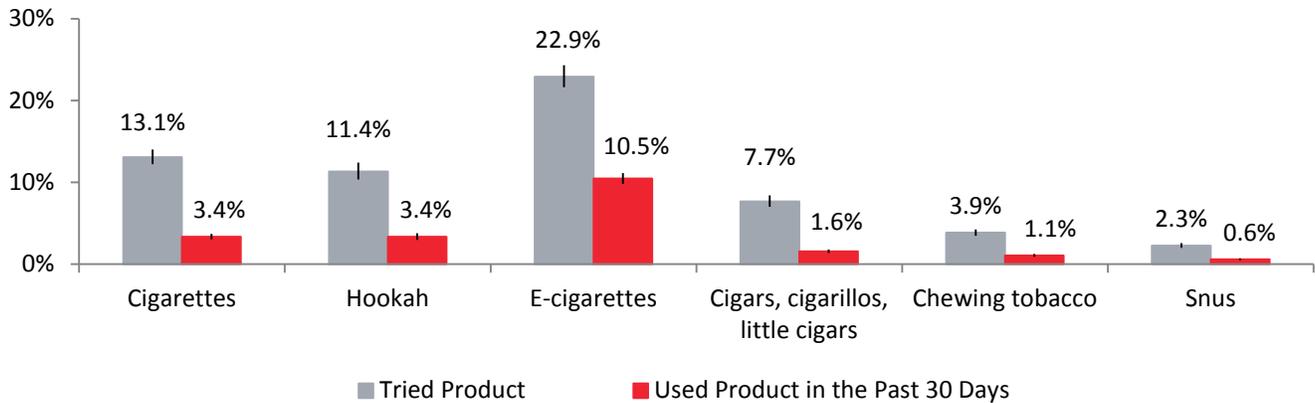
Figure 4: Percentage of Youth (Grades 8, 10, 12) Who Used Electronic Cigarettes in the Past 30 Days by Sex, Grade in School, and Race/Ethnicity, Utah, 2015.²



Experimentation and Use of Different Tobacco Products

In 2015, Utah students were more than twice as likely to report that they had used e-cigarettes in the past 30 days than any other tobacco product. Hookah and cigarettes were the second most frequently used products. Similarly, experimentation with tobacco products was highest for e-cigarettes, followed by cigarettes and hookah.¹

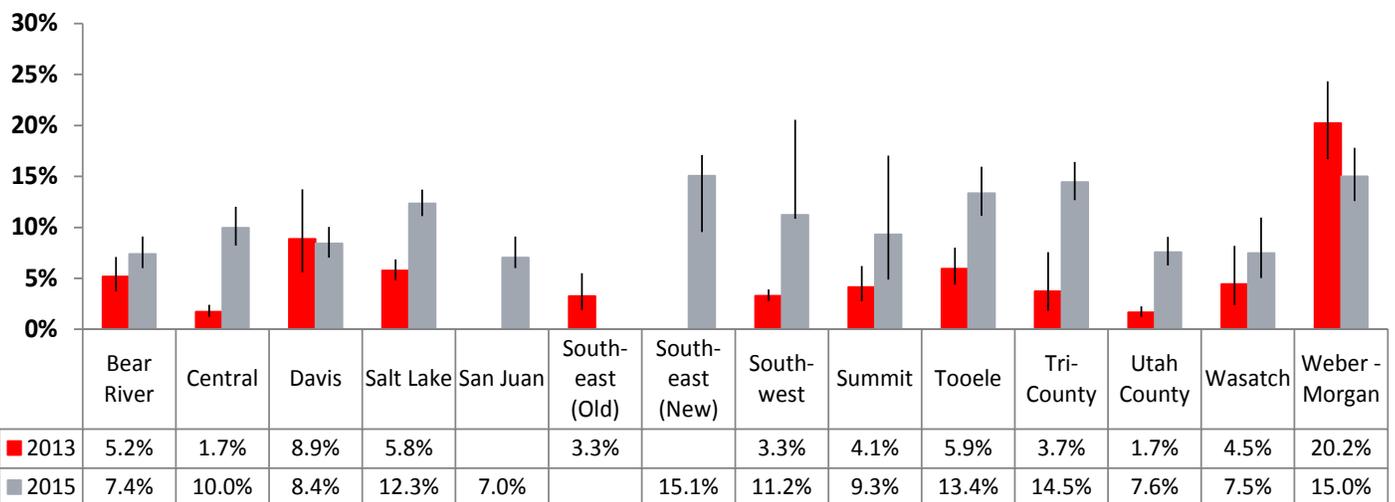
Figure 5: Percentage of Students (Grades 8, 10, 12) Who Tried Tobacco Products or Used Tobacco Products in the Past 30 Days by Type of Tobacco Product, Utah, 2015.¹



Use of Electronic Cigarettes Among Local Health Districts

While youth e-cigarette use rates among local health districts differ, nearly all local health districts experienced an increase between 2013 and 2015. In 2015, Southeast (15.1%), Weber-Morgan (15.0%), Tri-County (14.5%), and Tooele County (13.4%) reported the highest rates of e-cigarette use among youth. San Juan (7.0%), Bear River (7.4%), Wasatch County (7.5%), and Utah County (7.6%) reported the lowest rates of e-cigarette use. Between 2013 and 2015, rates of youth e-cigarette use in Salt Lake County, Summit County, and Tooele County local health districts increased more than 200% while rates in Central Utah, Southwest, Tri-County, and Utah County increased more than 300%.¹

Figure 6: Percentage of Youth (Grades 8, 10, 12) Who Used Electronic Cigarettes in the Past 30 Days by Local Health District, Utah, 2015.¹



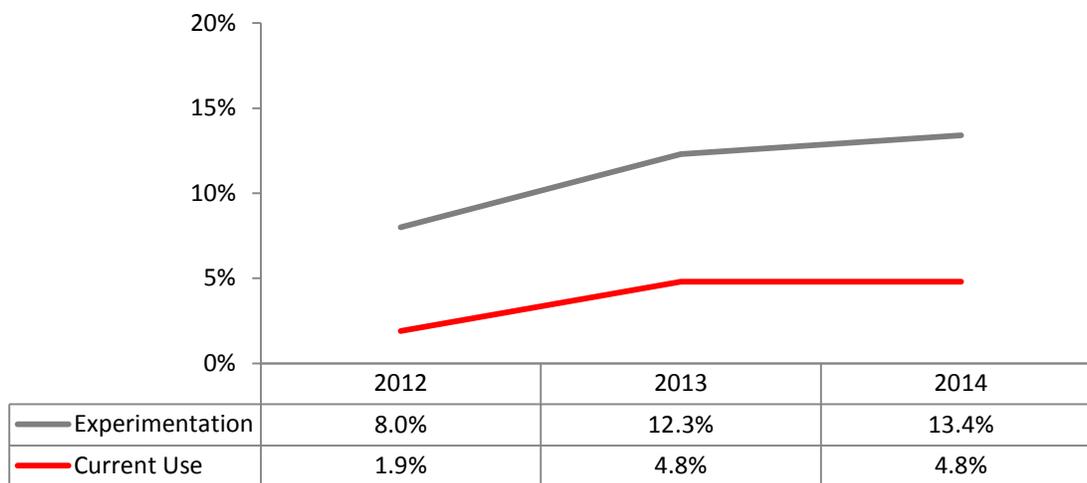
Data Note: 2013 rates for Southeast (Old) include San Juan County. San Juan County separated from Southeastern Utah Public Health District in 2015 to form Utah's 13th health district.

Trends in Experimentation and Use

Adult experimentation with e-cigarettes increased from 8.0% in 2012 to 13.4% in 2014. In 2014, one out of eight adults in Utah had tried e-cigarettes. Current use increased from 1.9% to 4.8%.³

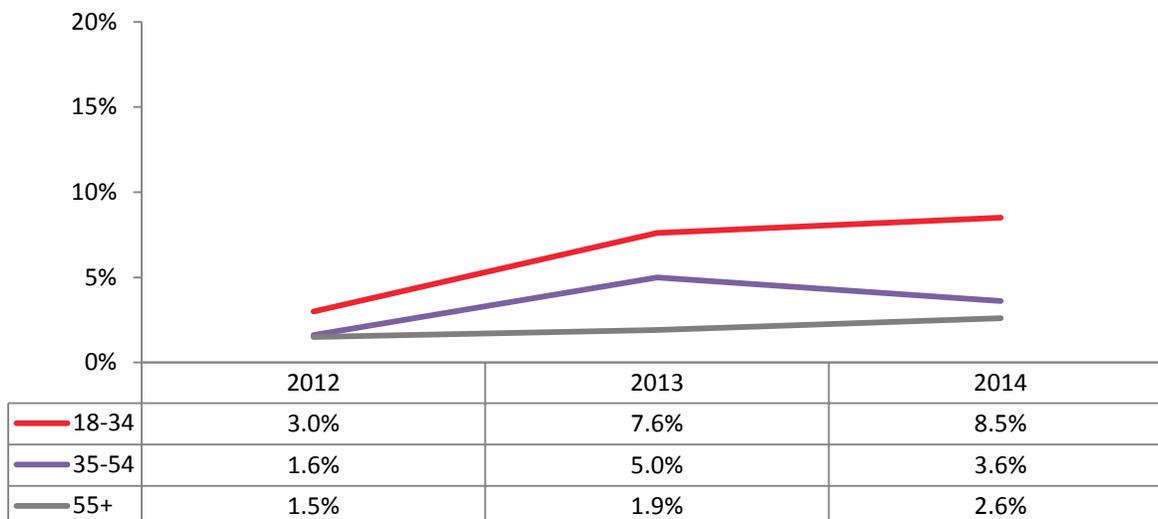
In 2014, one out of 12 young adults (aged 18-34) in Utah reported that they had used e-cigarettes in the past 30 days. Between 2012 and 2104, current use increased from 3.0% to 8.5% among adults aged 18-34, 1.6% to 3.6% among adults aged 35-54, and 1.5% to 2.6% among adults aged 55+.³

Figure 7: Percentage of Adults Who Tried Electronic Cigarettes or Currently Used Electronic Cigarettes by Year, Utah, 2012, 2013, and 2014.³



Data Note: All rates in Figure 7 are age-adjusted.

Figure 8: Percentage of Adults Who Currently Used Electronic Cigarettes by Age Group and Year, Utah, 2012, 2013, and 2014.³

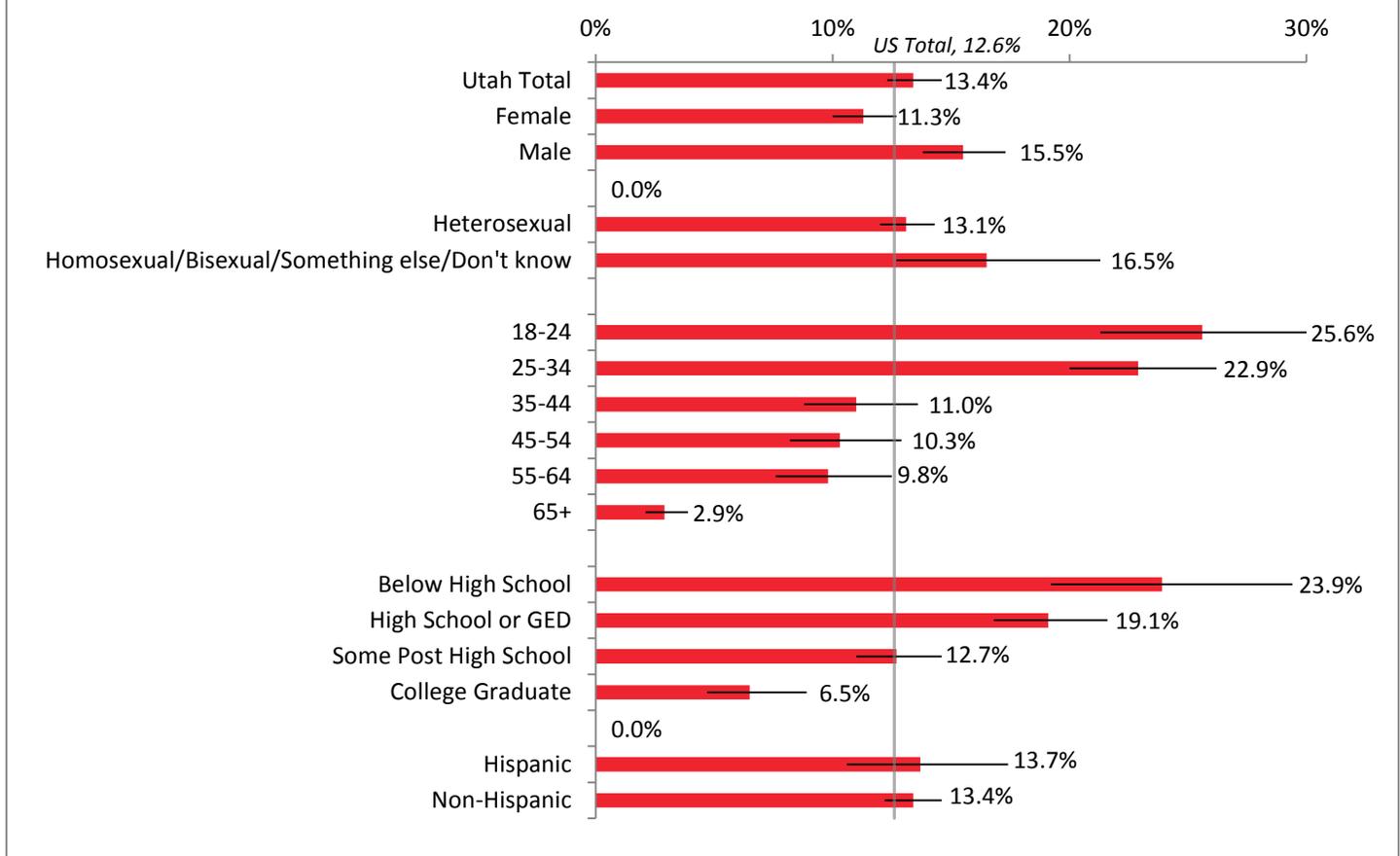


Data Note: All rates in Figure 8 are crude.

Experimentation with Electronic Cigarettes

In 2014, 13.4% of Utah adults had ever tried electronic cigarettes or e-cigarettes. E-cigarette experimentation among Utah adults was comparable to the rate of e-cigarette experimentation among adults nationwide (12.6%).⁴ Experimentation with e-cigarettes varied by sex, sexual orientation, age, and formal education. Males (15.5%), people who identified as homosexual or bisexual (16.5%), younger adults aged 18 to 24 (25.6%) and aged 25-34 (22.9%), and people with less than high school education (23.9%) or high school or GED degrees (19.1%) reported higher rates of e-cigarette experimentation.³

Figure 9: Percentage of Adults (Aged 18+) Who Tried Electronic Cigarettes by Sex, Sexual Orientation, Age Group, Education, and Ethnicity, Utah & US, 2014.³

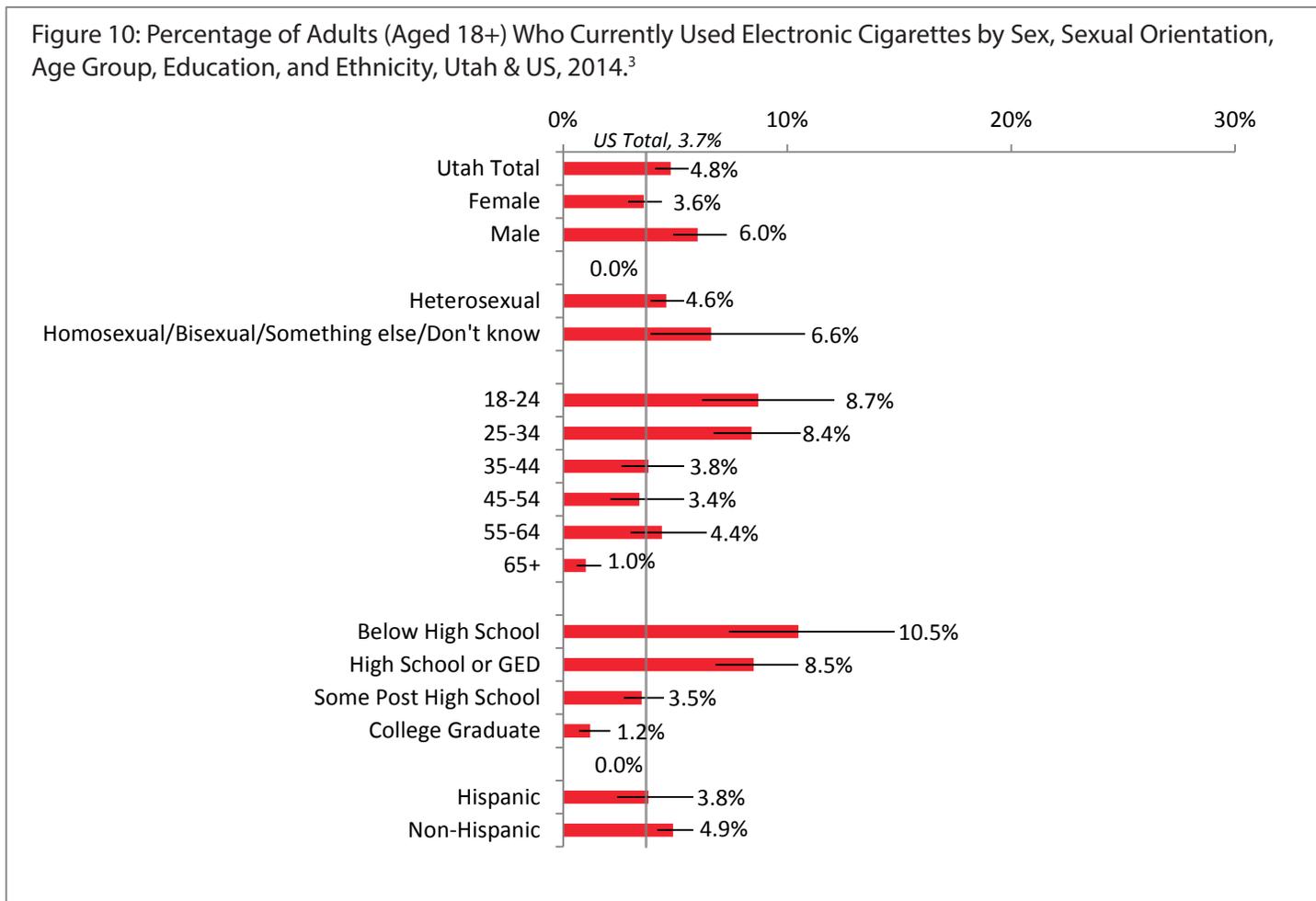


Data Note: All rates in Figure 9 are age-adjusted except the rates presented for age categories. The overall crude rate of adult e-cigarette experimentation in Utah is 12.0%.

Current Use of Electronic Cigarettes

In 2014, 4.8% of Utah adults currently used e-cigarettes every day or some days. Utah's adult use rate was comparable to the current e-cigarette use rate among adults nationwide (3.7%).⁴ Use of e-cigarettes among Utah adults varied by sex, sexual orientation, age, and formal education. Males (6.0%), people who identified as homosexual or bisexual (6.6%), younger adults aged 18 to 24 (8.7%) and aged 25-34 (8.4%), and people with less than high school education (10.5%) or high school or GED degrees (8.5%) reported higher rates of e-cigarette use.³

Figure 10: Percentage of Adults (Aged 18+) Who Currently Used Electronic Cigarettes by Sex, Sexual Orientation, Age Group, Education, and Ethnicity, Utah & US, 2014.³



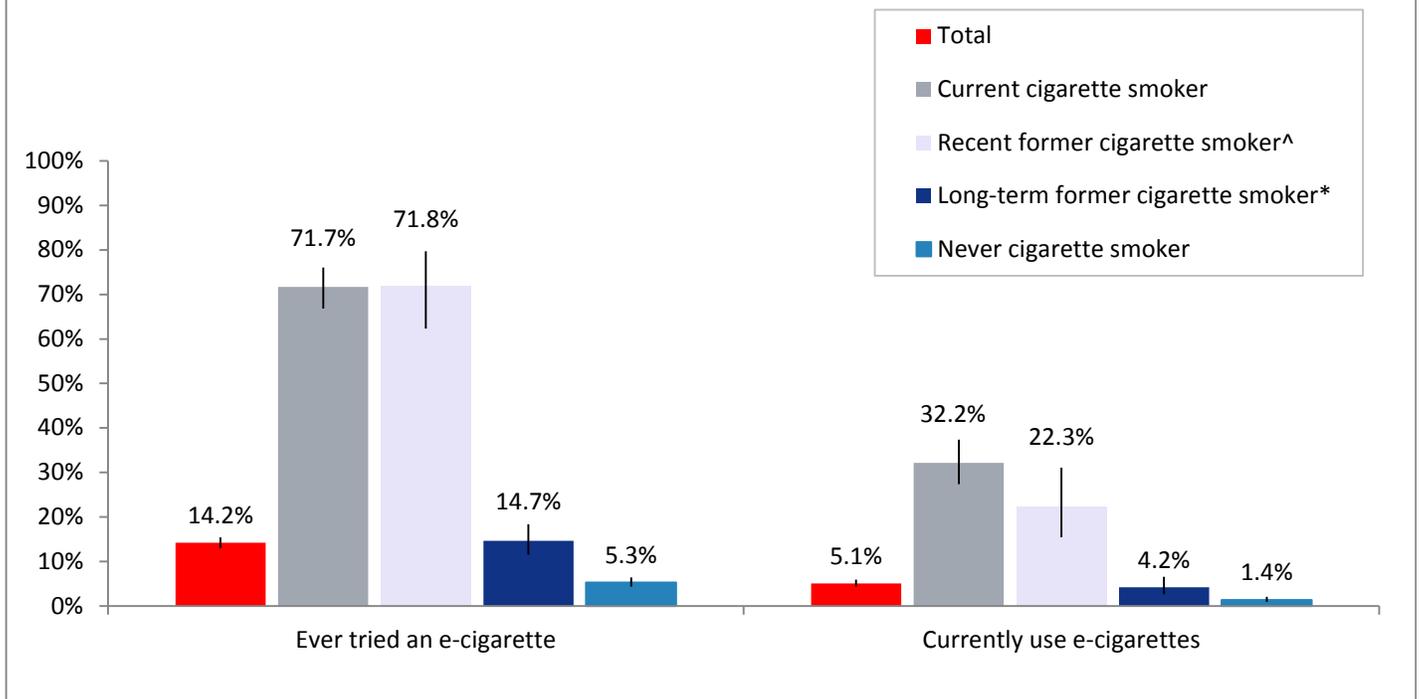
Data Note: All rates in Figure 10 are age-adjusted except the rates presented for age categories. The overall crude rate of adult e-cigarette use in Utah is 5.2%.

Use of Electronic Cigarettes by Cigarette Smoking Status

In 2014, current smokers and recent former smokers (those who quit smoking within the past year) were significantly more likely to use e-cigarettes than long-term former smokers (those who quit smoking more than one year ago) and adults who had never smoked cigarettes.³

- More than 70% of current and recent former cigarette smokers reported that they had tried e-cigarettes. In comparison, 14.7% of long-term former cigarette smokers and 5.3% of never smokers reported trying e-cigarettes.³
- Nearly one-third of current cigarette smokers (32.2%) and more than one in five recent former cigarette smokers (22.3%) reported that they currently used e-cigarettes. Long-term former cigarette smokers reported e-cigarette use at a rate of 4.2%; never cigarette smokers reported a rate of 1.4%.³
- Compared to adults nationwide, Utah adults reported higher rates of experimentation and use of electronic cigarettes in all cigarette smoking status categories.⁴ Utah rates of e-cigarette use were especially high among current cigarettes smokers. For current smokers nationwide, the 2014 rate of e-cigarette experimentation was 55.4% (71.7% in Utah) and the rate of current use was 15.9% (32.2% in Utah).⁴

Figure 11: Percentage of Adults (Age 18+) Who Had Ever Tried an Electronic Cigarette and Percentage Who Currently Use E-cigarettes, by Cigarette Smoking Status, Utah, 2014.³



Data Note: All rates in Figure 11 are age-adjusted.

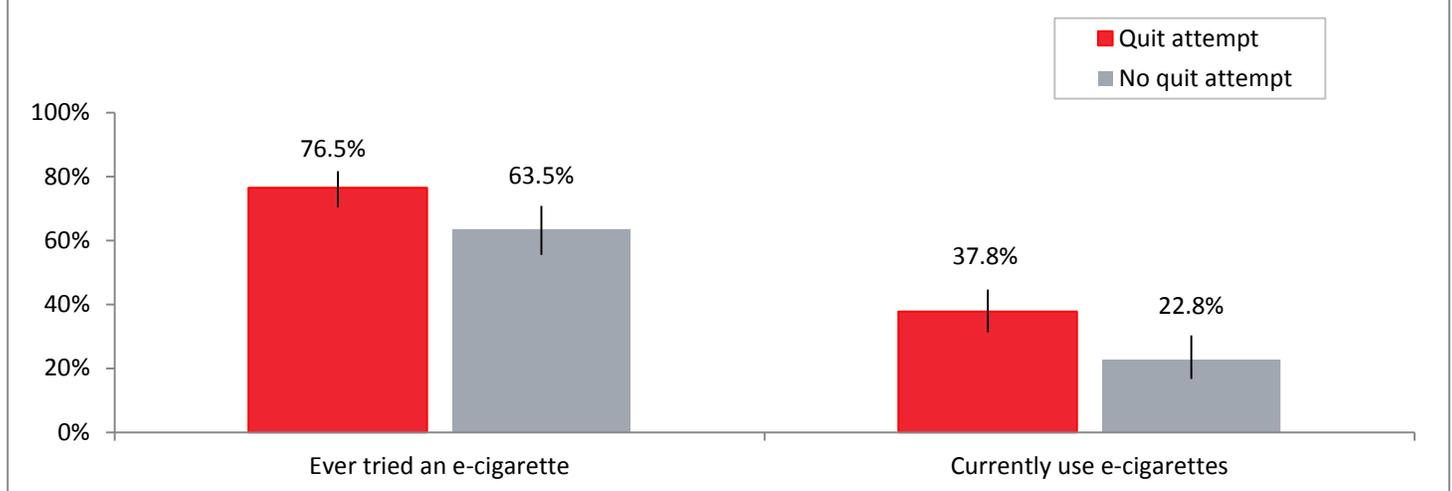
[^] Quit smoking within the past year.

^{*} Quit smoking more than 1 year ago.

Use of Electronic Cigarettes by Cigarette Smoking Quit Attempts

Current cigarette smokers who had made a quit attempt in the past year were more likely to report that they had tried e-cigarettes or were current users of e-cigarettes than those who had not made a quit attempt.³ Compared to adults nationwide, Utah adults were more likely to report that they had tried or currently use e-cigarettes in all categories.^{3,4} For smokers nationwide who had made a quit attempt, the rate of e-cigarette experimentation was 55.3% (76.5% in Utah) and the rate of current use was 20.3% (37.8% in Utah).⁴

Figure 12: Percentage of Adult Current Cigarette Smokers (Aged 18+) Who Had Ever Tried an Electronic Cigarette and Percentage Who Currently Use E-cigarettes, by Quit Attempt Status, Utah, 2014.³

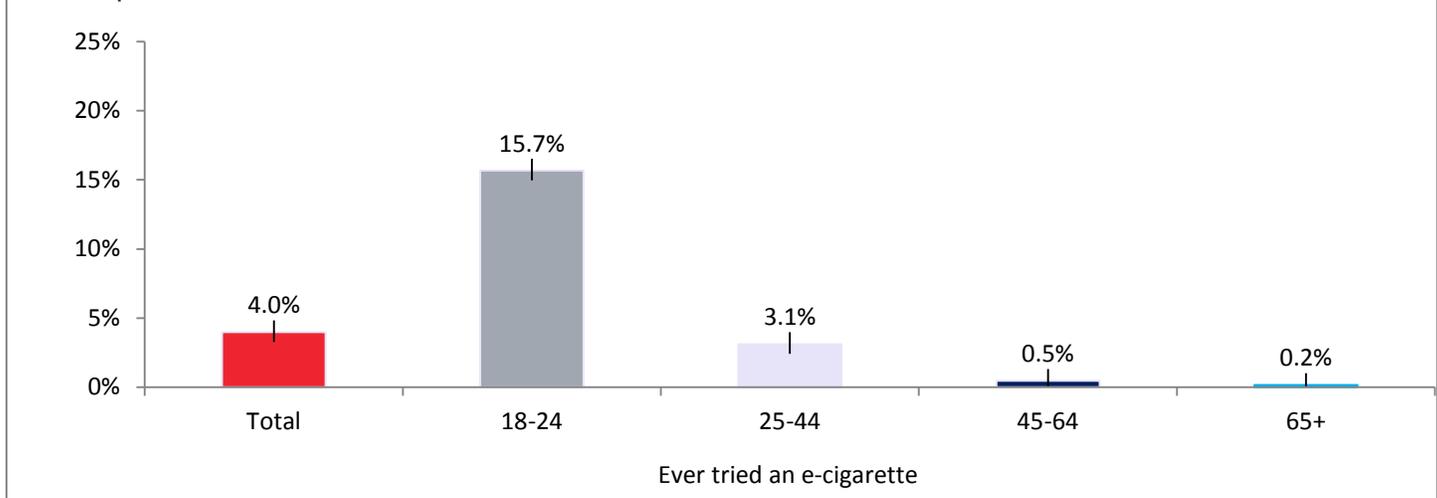


Data Note: All rates in Figure 12 are age-adjusted.

Use of Electronic Cigarettes Among Never Smokers

Among Utah adults who had never smoked, young adults (ages 18-24) were significantly more likely to have tried electronic cigarettes than older adults.³ Compared to young adults nationwide (9.7%), young adults in Utah reported higher rates of e-cigarette experimentation (15.7%).^{3,4} E-cigarette experimentation rates for other age groups in Utah were comparable to rates nationwide.⁴

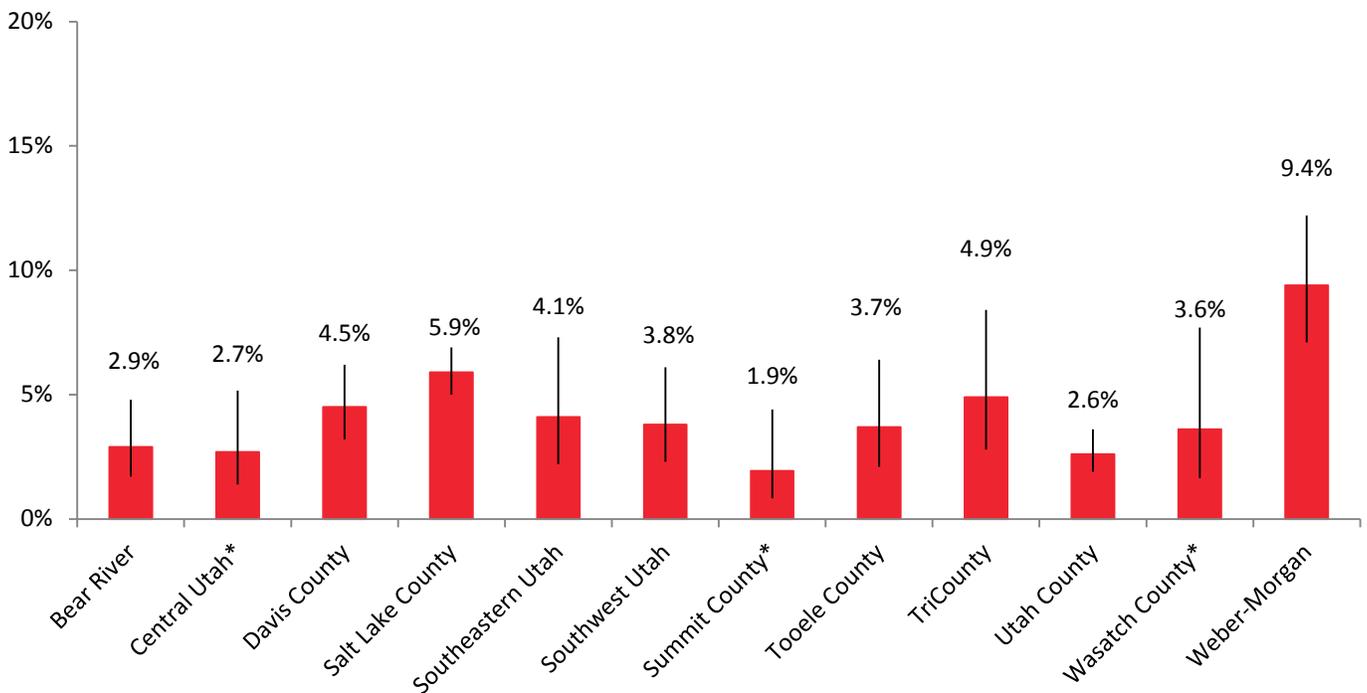
Figure 13: Percentage of Adult Never Smokers (Aged 18+) Who Had Ever Tried Electronic Cigarettes, by Age Group, Utah, 2014.³



Use of Electronic Cigarettes by Local Health District

Among local health districts, adults from Weber-Morgan (9.4%), Salt Lake County (5.9%), Tri-County (4.9%), and Davis County (4.5%) reported the highest rates of e-cigarette use. Weber-Morgan and Salt Lake County health districts had e-cigarette use rates that were significantly higher than the state rate of 4.8%. Adults from Summit County (1.9%), Utah County (2.6%), Central Utah (2.7%), and Bear River (2.9%) reported the lowest e-cigarette use rates; both Summit County and Utah County reported rates that were significantly lower than the state rate.³

Figure 14: Percentage of Adults Who Currently Use Electronic Cigarettes, by Local Health District, Utah, 2013-2014 (Combined Data).³



Data Note: All rates in Figure 14 are age-adjusted. *Use caution in interpreting these results. These estimates have a coefficient of variation >30% and are deemed unreliable by Utah Department of Health Standards.

References

¹ Utah Tobacco Prevention and Control Program. *Student Health and Risk Prevention (SHARP) Survey*. 2011, 2013, 2015. Prevention Needs Assessment Survey Results. Salt Lake City: Utah Division of Substance Abuse and Mental Health, Utah Department of Health, and Utah State Office of Education.

² England, L. et al. *Nicotine and the Developing Human: A Neglected Element of the E-cigarette Debate*. *American Journal of Preventive Medicine* Volume 49, Issue 2, August 2015, pp. 286–293.

³ Utah Department of Health. *Behavioral Risk Factor Surveillance System (BRFSS)*. 2012-2014. Salt Lake City: Utah Department of Health, Center for Health Data.

⁴ CDC/NCHS. *Electronic Cigarette Use Among Adults: United States*. National Health Interview Survey. 2014.

⁵ CDC. *MMWR: Tobacco Use Among Middle and High School Students - United States, 2011-2014*. Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion.

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