



## **Adult Tobacco Use and Exposure, Colorado 2018**

March 2020

**Community Epidemiology & Program Evaluation Group**

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## Brief summary of findings

*Introduction.* This report focuses on changes during 2015-18 and identifies new and remaining disparities in 2018, based on results of a large, periodic population survey of Colorado adults, funded with tobacco tax revenues. The report emphasizes groups that were first identified in the baseline survey (2001) as bearing disparately large tobacco burdens. These populations receive priority attention from the state's tobacco control program.

Rates in this report represent estimates for the Colorado adult population group during the corresponding year. Unless noted, changes represent 2018 rates compared to 2015 rates. Trend analyses included survey waves 2001, 2005, 2008, 2012, 2015, and 2018. Significant differences appear in **bold** typeface.

### Significant<sup>1</sup> changes since 2015, disparities in 2018

#### General population

- Current smoking (past 30 days) significantly declined, from 17.1% to **15.2%**.
- Among current smokers, daily smoking was unchanged, at 72.3%.
- Ever use of a hookah (water pipe) to smoke tobacco declined from 10.6% to **6.0%**.
- E-cigarette ever-use increased from 22.8% to **25.5%**. Among current tobacco smokers, e-cigarette ever-use remained unchanged, at 66.3%.
- Successful quitting (at least three months abstinence) significantly increased, from 10.3% to **16.6%** of quit-attempters.
- Smoke-free home rules significantly increased among all households, from 85.1% to **89.5%**, and among households with a smoker, from 68.2% to **77.7%**.

#### People with low socioeconomic status<sup>2</sup> (SES)

- Quit success rates more than doubled, from 7.2% to **15.7%**.
- Smoking prevalence was unchanged, at 23.7%, and was nearly 2.5 times as high (**23.7%**) as among the non-low SES population (9.1%).

#### Hispanic/Latinx population

- Smoking prevalence significantly declined during 2015-18 among English-dominant<sup>3</sup> Hispanic/Latinx adults, from 20.4% to **15.4%**.
- Spanish-dominant Latinx smokers were less likely than Anglo smokers to smoke daily (**76.2%** vs. 51.7%).
- Prevalence among Spanish-dominant Hispanic/Latinx adults<sup>4</sup> was unchanged, at 12.9%.
- Spanish-dominant Hispanic/Latinx were less likely to see a doctor in 2018 than Anglos (**51.0%** vs. 74.1%).

#### Black/African-American (Black/AA) population

- The smoking prevalence gap with Anglo adults widened in 2018 (**26.3%** vs. 14.4%), although prevalence was statistically unchanged from 2015 (24.2% in 2015).

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<sup>1</sup> "Significant" means less than 5% likely ( $p < 0.05$ ) to be an accidental difference (sampling error); bold highlight indicates significant difference

<sup>2</sup> Low SES means uninsured, income below 200% of federal poverty level, no high school diploma (may have GED), or disabled/unable to work. [Nationally and in Colorado, tobacco burdens are similar among GED holders and people who don't complete high school.]

<sup>3</sup> Represented by Hispanic respondents who were interviewed in English and reported English (or English and Spanish equally) as the primary language at home.

<sup>4</sup> Represented by Hispanic respondents who were interviewed in Spanish or reported Spanish as the primary language at home.

### **American Indian/Alaska Native (AI/AN) population**

- Smoking prevalence non-significantly declined during 2015-18 (33.0% to 25.5%).
- Male current smokers had the highest chewing tobacco use (33.8%) of any ethnicity.

### **Asian American/Pacific Islander (AA/PI) population**

- Smoking prevalence was unchanged, at 10.2%.

### **People with mental illness<sup>5</sup> and/or mental limitations<sup>6</sup>(MI/ML)**

- Current smoking was unchanged since 2015, at 24.2%, but was significantly lower than in 2008 (**34.3%**), when MI/ML was first reported by the survey.
- People with MI/ML were more likely than those not reporting an MI/ML to be ever-smokers (**52.2%** vs. 39.1%, respectively) and current smokers (**24.2%** vs. 13.0% respectively)
- People with MI/ML were far more likely to currently use e-cigarettes (**19.5%** vs. 6.1%)

### **Smokeless tobacco use**

- Current smokers were more likely than former or nonsmokers to use smokeless tobacco (**6.8%** vs 3.0%), a difference that was not present in 2015.
- Current use was significantly higher among rural than non-rural men (**13.2%** vs. 5.8%).<sup>7</sup>

### **Lesbian, gay, bisexual, transgender<sup>8</sup>(LGBT) population**

- Smoking prevalence significantly declined, from 33.2% to **22.5%**.
- Current smoking was significantly higher than among heterosexuals (**22.5%** vs. 14.6%).
- Daily smoking significantly declined, from 85.1% to **65.4%**.

### **Men**

- Smoking prevalence was unchanged and remained one-third higher than among women (**17.6%** vs. 12.9%).
- Men were significantly more likely than women to be heavy smokers (**3.9%** vs. 1.1%).
- Men were less likely than women to be aware of the QuitLine (**77.0%** vs. 91.8%).
- Ever use of a hookah was significantly higher among men than women (**9.3%** vs. 2.8%),
- E-cigarette ever-use was higher among men than women (**30.9%** vs. 20.2%), as was current use (**11.5%** vs. 5.7%).

### **Secondhand Smoke Exposure (SHS)**

- **11.9%** of households with smokers and children report smoking occurred in the home in the past 30 days, significantly lower than in households with smokers and no children (24.3%).
- **36.9%** of households with children and smokers reported past 30-day smoking in cars compared to 1.6% past 30-day smoking in cars in households with children but without smokers.

### **Straight to work young adults (STWYA)**

- Smoking prevalence significantly declined, from 32.0% to **21.8%**, but remained almost three times prevalence among students (7.4%).
- Chewing tobacco use was far more common than among students (**8.7%** vs. 1.5%).

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<sup>5</sup> adults who report having a diagnosed mental illness

<sup>6</sup> adults who report that their activity is limited by a mental or emotional condition

<sup>7</sup> Fewer than one percent of Colorado adult women use smokeless tobacco.

<sup>8</sup> TABS asked respondents in 2015 to self-identify as gay/lesbian, bisexual, heterosexual/straight, transgender, or other. Transgender was not a prompted option before 2015.

<sup>+</sup> Straight to work young adults are defined as: adults aged 18-24 years who are working and have less than a college education

## The Attitudes and Behaviors Survey on Health

Every three to four years, The Attitudes and Behaviors Survey (TABS) on Health randomly selects and interviews thousands of Colorado adults to learn about the health of the state's population. The survey focused solely on tobacco through 2008. The 2012 wave added chronic disease conditions, and waves 2015 and 2018 added multi-unit housing smoking exposure, built environment, radon awareness, e-cigarette use, and marijuana use. The 2018 wave, called the Colorado Adult Survey on Tobacco Health and Behaviors (CAS-THAB), also collected information on diabetes and high blood pressure. The survey was funded in 2001 by tobacco litigation settlement proceeds and subsequently by revenues from a voter-approved tobacco tax increase.

The survey randomly selects adults (aged 18+) from all Colorado households with telephone service and interviews consenting respondents in their choice of English or Spanish. Certain groups are oversampled to obtain more precise health information about them. Since 2008, both landline and cell phone numbers have been sampled. In 2018, an estimated 56.7% of Colorado households had only cell phone service (15.2% did in 2007) and 76.5% of young adults (18-24), a hard to reach group, had cell-only service.<sup>9,10</sup>

The 2018 survey interviewed 12,971 Colorado adults, with more than three-fourths (79.5%) completing by cell phone. Responses are weighted in analysis to match the 2018 Colorado adult population in age, sex, ethnicity, education, region, and telephone service.

### About this report

The current report describes tobacco use in 2018, identifies progress and challenges since 2015, and presents trends since 2001 among key sociodemographic groups. Topics include cigarette smoking and cessation, attitudes about tobacco-related policies, use of non-cigarette tobacco products, the use of e-cigarettes, and second-hand smoke exposure including in multi-unit housing.

The report relies on a 95% confidence measure ( $p < 0.05$ ) to identify *significant* changes and differences, which are less than 5% likely to be chance findings caused by sampling error. Estimates represent the Colorado adult population in the respective year for which they are reported.

Where a 2018 rate is significantly different from 2015, it appears in **bold** typeface text and/or denoted with an \* in tables and charts. Other significant differences, i.e., comparing 2001 and 2018 or two population groups, are presented in the narrative or noted in tables and charts. Rates described as "unchanged" or "similar" are not *significantly* different.<sup>11</sup>

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<sup>9</sup> Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, January–July 2018. National Center for Health Statistics. December 2019 Available from: <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201906.pdf>

<sup>10</sup> Blumberg SJ, Luke JV, Davidson G, Davern ME, Yu T, Soderberg K. Wireless substitution: State-level estimates from the National Health Interview Survey, January–December 2007. National health statistics reports; no 14. Hyattsville, MD: National Center for Health Statistics: 2009

<sup>11</sup> Comparisons between years are for actual rates and are not standardized on age or other characteristic.

## Introduction

Cigarette smoking remains the leading cause of preventable disease and death in Colorado and the rest of the United States.<sup>1</sup> In Colorado, 41,000 deaths in 2018 were attributable to smoking, at an economic cost of \$148,410 per smoker.

The State Tobacco Education and Prevention Partnership (STEPP) administers grants to community and statewide programs to reduce tobacco initiation and increase cessation. The State's strategic tobacco plan<sup>12</sup> identifies five imperatives:

- Ensure quitters maintain long-term abstinence (turn more quit attempts into cessation successes).
- Decrease initiation and prevalence among all populations, particularly those disparately affected by tobacco use.
- Influence the decrease in the sale and marketing of tobacco, including new products.
- Reduce exposure from secondhand smoke, particularly among low-income populations.
- Promote recognition that tobacco is still the leading preventable cause of death for Coloradans.

The plan addresses all Colorado populations and emphasizes those with low socioeconomic status (SES), with seven goals:

- The cessation success gap affecting low SES youth and adult smokers decreases by 50 percent.
- A majority of people and health care systems in Colorado recognize and treat tobacco dependence as a chronic condition.
- A majority of Coloradans live, learn, work and play in communities that have effective policies and regulations that reduce youth and adult use and access to tobacco.
- Tobacco prevalence and initiation among young adults, especially straight-to-work, decreases by 50 percent.
- Initiation among youth, especially high burden and low SES populations, decreases by 50 percent.
- Exposure to secondhand smoke with an emphasis on low SES populations decreases by 50 percent.
- Colorado is among the 10 states with the highest price for tobacco products.

The current report presents a status update on these goals and other tobacco-related indicators and behaviors.

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<sup>12</sup> Colorado Tobacco Review Committee. *Tobacco Education, Prevention, and Cessation Grant Program Strategic Plan 2012–2020*. <http://www.coprevent.org/2012/03/tobacco-education-prevention-and.html>.

## Current smoking prevalence

### Key Findings:

- Current smoking significantly declined during 2015-18, overall and among Anglo and English-dominant Latinx adults. Little progress was made among adults with low SES, men, other ethnicities, and people reporting mental illness or limitations.
- The largest numbers of smokers are found among men, age groups 25-44, and households with income <200% federal poverty. Innovative strategies might seek to reach these and other large populations of smokers through workplaces, multi-unit housing, and community-based cessation support.

<b>Colorado's low SES population grows poorer</b>						
Colorado's low SES population has steadily grown, from one-third of adults in 2001 to nearly one-half in 2018. Low income has become more common, as have individuals with multiple low SES conditions.						
Percent of Colorado adults with ...						
	2001	2005	2008	2012	2015	2018
Household income <200% FPL	19.5%	22.2%	29.5%	33.8%	37.7%	35.8%
No health insurance	11.9%	17.7%	20.3%	17.8%	11.5%	8.1%
No HS diploma	6.2%	9.7%	13.9%	14.4%	13.0%	14.1%
Disability / unable to work	2.1%	2.7%	3.4%	4.9%	4.1%	4.8%

FPL = federal poverty level

Adult smoking prevalence<sup>13</sup> significantly declined since 2001 (the survey baseline year) and continued to decline during 2015-18. Declines were seen among most groups, including low SES, most ethnicities, LGBT, and people with self-reported mental illness or limitations (Table 1). The overall *number* of smokers also declined, even though the state population increased. However, only some groups showed declining numbers of smokers: those without low SES, women, young adults (aged 18-24), Anglos (non-Hispanic whites), English-dominant Latinxs, and adults not reporting mental illness or limitations.<sup>14</sup>

The number of smokers increased among Spanish-dominant Latinxs, even while smoking prevalence appeared to decline in that group; the inconsistent trends presumably reflect migration to Colorado during 2001-2018.

Both the number of smokers and current smoking prevalence increased among Black/African American adults, and prevalence was significantly higher in 2018 than in 2001 (**26.3%** vs. 17.8%,  $p=0.02$ ). However, when the same data are standardized on age, sex, education and poverty,<sup>15</sup> prevalence was unchanged across the period 2001-2018. These results suggest that the change in smoking prevalence was due to changes in one or more of these characteristics.<sup>16</sup>

Further progress will require more commitment to reach and engage the largest numbers of smokers. Both national and Colorado evidence shows less progress among low SES adults, suggesting that new strategies are needed. SES disparities in smoking prevalence have appeared since 2001 (figure 1), as have disparities in proportions of smokers who smoke daily and, until 2018, of heavy smokers.

<sup>13</sup> Current smoking prevalence = percentage of a population that smoked 100+ cigarettes in lifetime and now smokes cigarettes daily or some days.

<sup>14</sup> Totals were not tested for significant changes across time.

<sup>15</sup> Standardized data are adjusted so the population stays the same in each survey year in proportions of age, sex, etc.

<sup>16</sup> Poverty is the most strongly associated characteristic with smoking prevalence. CEPEG is investigating this finding and others arising from standardization, and a report will be forthcoming.

group	number that smoked						% that smoked					
	2001	2005	2008	2012	2015	2018	2001	2005	2008	2012	2015	2018
all adults	613,984	585,035	701,980	667,500	673,832	635,350	19.7	17.3	19.1	17.3	17.1	<b>15.2</b>
<b>Low Socioeconomic Status (SES)</b>												
no	250,982	213,499	211,567	145,203	131,523	165,733	14.2	12.0	12.6	9.4	9.0	<b>9.1</b>
yes	277,875	307,100	426,619	413,578	397,600	366,303	33.1	27.9	28.9	27.1	26.2	<b>23.7</b>
<b>Sex</b>												
women	296,187	254,686	313,604	286,866	299,579	269,920	19.1	15.0	17.1	14.8	15.1	<b>12.9</b>
men	317,798	330,348	388,376	380,634	374,252	365,430	20.3	19.5	21.1	19.8	19.0	17.6
<b>Age Group</b>												
18-24	126,710	110,311	132,160	114,448	98,665	78,285	30.2	24.5	26.3	21.5	18.4	<b>15.1</b>
student	26,284	33,990	49,348	34,078	19,080	14,253	21.9	16.7	19.3	12.3	8.8	<b>7.4</b>
STWYA+	74,901	55,202	53,862	56,081	60,123	40,188	36.0	35.1	38.4	34.8	32.0	<b>21.8</b>
25-44	285,981	249,424	296,551	301,706	285,398	287,107	20.9	17.7	20.9	21.5	20.0	<b>18.6</b>
45-64	164,568	190,522	228,125	209,343	238,021	216,791	17.8	17.7	18.2	15.4	17.4	<b>15.5</b>
65+	36,725	34,777	45,144	42,003	51,748	53,166	9.2	7.8	9.2	7.4	8.4	7.5
<b>Ethnicity</b>												
Anglo (non-Hispanic white)	459,915	405,147	505,765	473,593	483,497	432,087	19.1	15.6	18.4	16.7	16.7	<b>14.4</b>
Latinx (English-dominant) <sup>†</sup>	88,547	96,144	93,302	91,843	87,224	72,643	22.1	24.4	24.9	21.8	20.4	<b>15.4</b>
Latinx (Spanish-dominant) <sup>†</sup>	10,354	30,798	34,216	23,103	33,186	37,212	18.4	18.9	13.4	9.0	12.3	12.9
Black/African American	19,713	24,387	30,208	33,080	35,537	40,807	17.8	19.4	23.9	23.7	24.2	<b>26.3</b>
American Indian	15,445	11,590	13,283	15,084	15,809	13,993	36.4	34.9	44.6	29.3	33.0	25.5
Asian American	9,731	5,841	9,606	7,549	10,125	8,868	16.4	14.4	14.8	10.7	10.2	10.2
All Other	10,279	11,128	15,601	23,248	8,453	29,741	29.0	29.9	22.8	26.6	12.8	29.3
<b>Sexual Orientation</b>												
heterosexual	n/a	382,363	613,759	597,763	521,875	464,290	n/a	16.8	18.9	17.2	16.4	<b>14.6</b>
LGB	n/a	12,384	36,289	43,565	46,636	49,593	n/a	35.8	39.7	33.4	33.2	<b>22.6</b>
LGBT	n/a	n/a	n/a	n/a	48,766	52,400	n/a	n/a	n/a	n/a	33.2	22.5
<b>Mental Illness or Limitation</b>												
no	n/a	n/a	572,137	464,772	468,489	403,563	n/a	n/a	17.7	14.8	14.9	13.0
yes	n/a	n/a	110,803	172,008	157,716	175,878	n/a	n/a	34.3	32.9	27.4	24.2

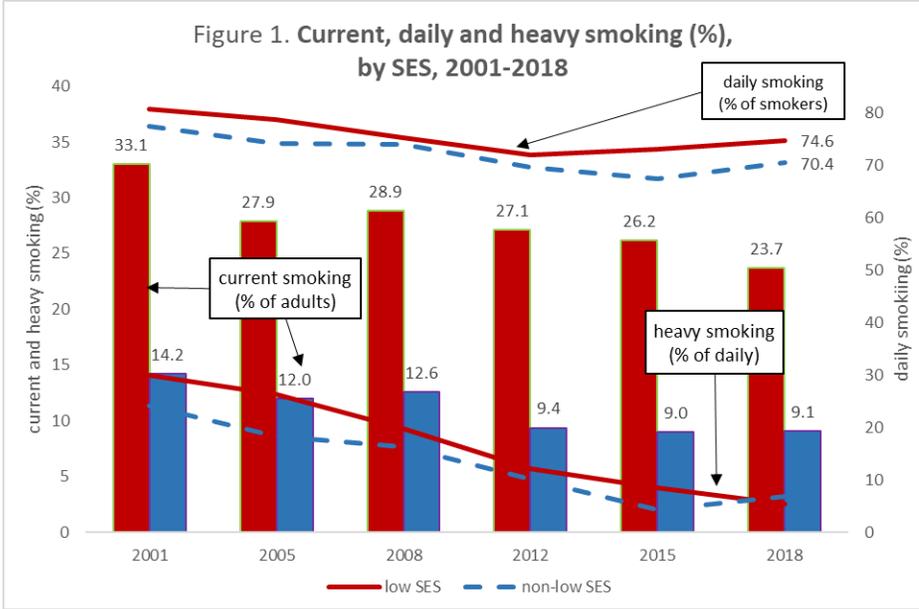
Each characteristic contains some or all categories with significantly different rates from one another in 2018.

**bold:** significantly lower in 2018 than in 2015.

**yellow:** significantly lower in 2018 than in 2001.

**red:** significantly higher in 2018 than in 2001.

The SES-smoking association held in 2018 for each characteristic used to indicate low SES (table 2). More than half of smokers, but less than one-third of nonsmokers, had low household income. Smokers were nearly twice as likely as nonsmokers to have no high school diploma, three times as likely to report being disabled, and nearly twice as likely to have no health insurance.



Smokers were also more often male; straight to work young adults (STWYA) or aged 25-44; Black/AA or AI/AN; lesbian/gay/bisexual/ transgender (LGBT); and self-reporting mental illness or limitations (MI/ML).

Young adulthood (ages 18-24) is a period when smoking patterns are not yet established in the population. Most regular (dependent) smokers tried their first cigarette before age 18, but one-third<sup>17</sup> to one-half<sup>18</sup> of regular smoking begins during young adult years (ages 18-24). During 2001-18, ever-smoking<sup>19</sup> and current smoking declined significantly among Colorado's young adults (Figure 2; additional details are provided at page 22.)

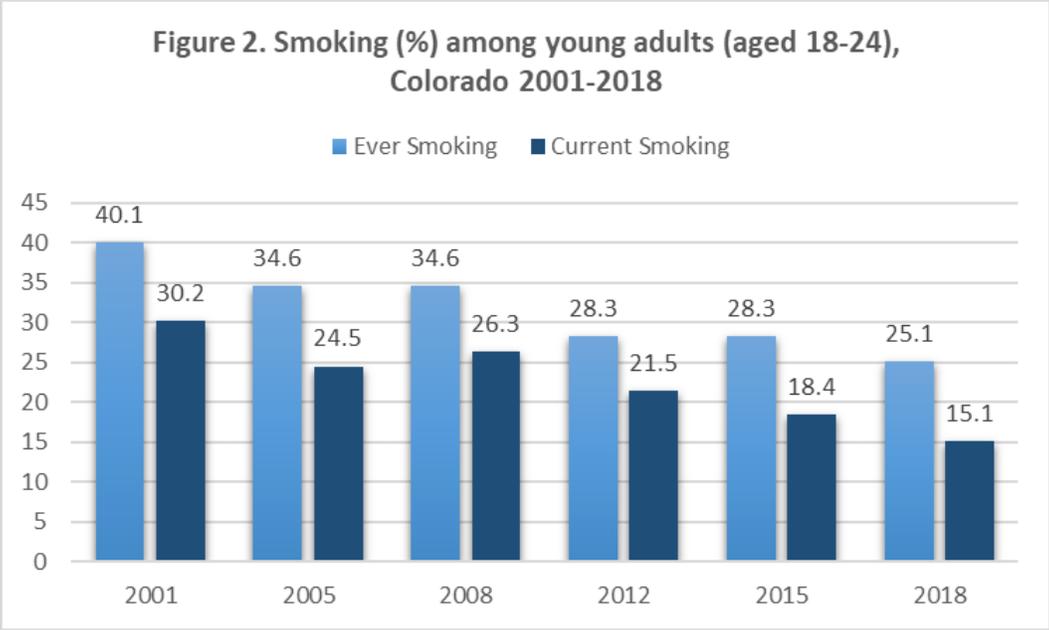
<b>Table 2. Characteristics of Colorado adults, 2018, by smoking status</b>		
	percent of ...	
	<b>nonsmokers</b>	<b>smokers</b>
	with ...	
<b><u>Low SES indicators</u></b>		
< 200% federal poverty level	32.4	53.9*
Medicaid or no health insurance	7.0	13.6*
No high school diploma	12.4	23.1*
Disabled/unable to work	3.8	10.3*
<b><u>Other characteristics</u></b>		
<b>Sex</b>		
men	48.6	57.5*
women	51.4	42.5*
<b>Age</b>		
18-24	12.5	12.3
STWYA	37.1	59.6*
student	45.8	21.1
25-44	35.6	45.2*
45-64	33.4	34.1
65+	18.5	8.4*
<b>Ethnicity</b>		
Anglo	72.9	68.0*
Hispanic (English- dominant)	11.3	11.4
Hispanic (Spanish-dominant)	7.1	5.9
Black/AA	3.2	6.4*
American Indian	1.2	2.2
Asian American	2.2	1.4
all other	2.0	4.7*
<b>Sexual orientation</b>		
heterosexual	93.8	89.9*
gay, lesbian, bisexual, trans	6.2	10.1*
<b>Mental illness and/or limitations</b>		
Yes	17.0	30.4*
No	83.0	69.6*

\* significant difference between smokers and nonsmokers  
 FPL=federal poverty level  
 STWYA=straight to work young adult

<sup>17</sup> Biener L, Albers AB. Young adults: vulnerable new targets of tobacco marketing. Am J Public Health 2004;94.

<sup>18</sup> Trinidad DR, Gilpin EA, Pierce JP. Do the Majority of Asian-American and African-American Smokers Start as Adults? Am J Prev Med 2004;26(2):156-8.

<sup>19</sup> Smoked at least 100 cigarettes in lifetime.



Ever- and current smoking rates in 2012, 2015, and 2018 differ significantly from 2001 rates.

## Smokers continue to reduce the amount they smoke

### Key Finding:

- A noteworthy success was a significant decline in daily cigarette use among LGBT smokers, from 85.1% to **65.4%**.
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Three measures of cigarette consumption in Colorado were unchanged during 2015-18.

**Daily smoking.** Daily smoking among current smokers was unchanged overall in 2018, at 72.3%, but it significantly declined among LGBT smokers, from 85.1% to **65.4%**. In 2018, adults aged 45-64 years had higher daily smoking prevalence than young adults did (45-54: **78.3%**; 55-64: **79.1%**; young adults: 54.7%). Anglo smokers were more likely than Spanish-dominant Hispanic/Latinx and Asian American/Pacific Islander smokers to be daily smokers (**76.2%**), as were urban vs. rural smokers (**80.8%** vs 70.6%).

**Cigarettes per day (CPD).** CPD among daily smokers did not change overall during 2015-2018. Two groups reduced CPD: adults aged 65+ (15.4 to **12.8**) and low SES adults (13.2 to **11.9**). Among nondaily smokers, CPD was unchanged overall (4.3%) but declined significantly among adults reporting a mental health issue or illness (6.9 to **3.8**). Among nondaily smokers, the number of smoking days remained unchanged overall (13.1 of past 30 days) but increased among smokers aged 65+ (13.5 to **18.1** days) and declined among American Indian/Alaska Native (18.8 to **5.6** days) and LGBT (16.6 to **11.0** days) smokers.

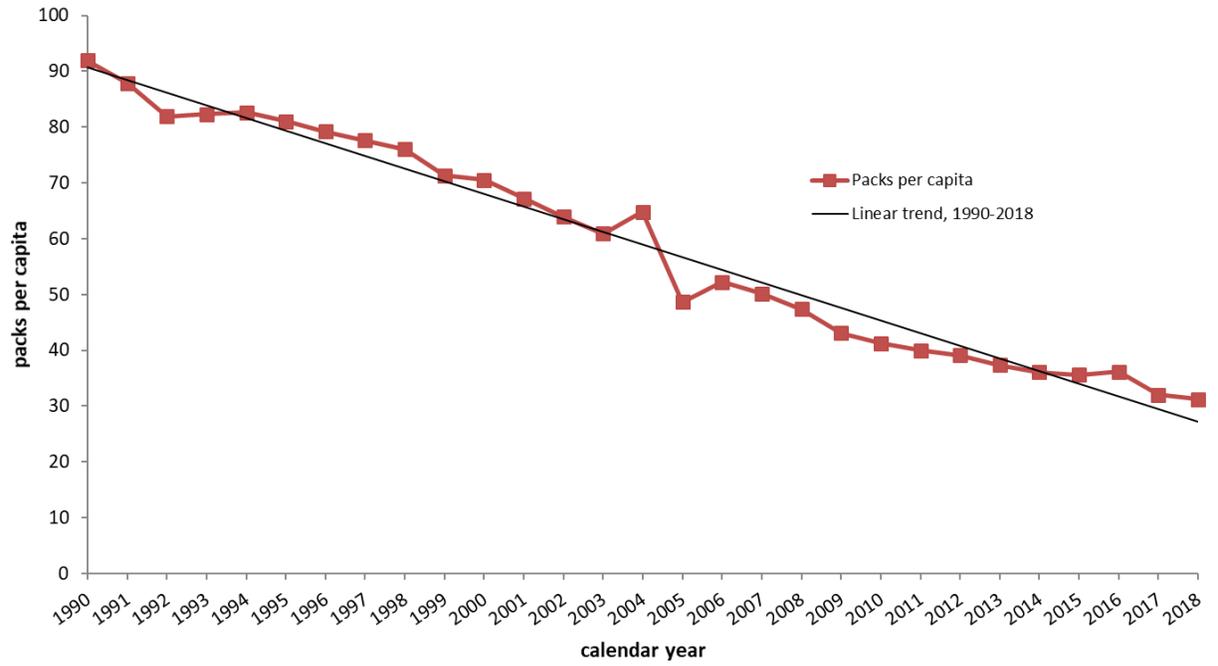
**Heavy smoking (25+ CPD).** The proportion of daily smokers who smoked heavily continued to decline, from 12.5% in 2001, to 10.8% in 2005, to 8.6% in 2008, to 5.1% in 2012, to 3.2% in 2015, and to **2.7%** in 2018. Heavy smoking in 2018 remained significantly more common among men (**3.9%**). Heavy smoking was not associated with self-reported mental illness/limitation.

**Cigarette sales.** Per capita cigarette sales declined during 2015-18 by more than 4 packs (12.4%). The decline has been slower since 2009, suggesting that the tax increase adopted by voters in 2004 is losing power to encourage cessation and discourage initiation.<sup>20</sup>

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<sup>20</sup> See, e.g., van Baal VHM, Vijgen SMC, Bemelmans WJE, Hoogenveen RT, Feenstra TL. Potential health benefits and cost effectiveness of tobacco tax increases and school intervention programs targeted at adolescents in the Netherlands. RIVM report 260601002. National Institute for Public Health and the Environment, 2005. Accessed 2/15/14: [http://nl.sitestat.com/rivm/rivm-nl/s?link.en.documents\\_and\\_publications.scientific.reports.2006.mei.potential\\_health\\_benefits\\_and\\_cost\\_effectiveness\\_of\\_tobacco\\_tax\\_increases\\_and\\_school\\_intervention\\_programs\\_targeted\\_at\\_adolescents\\_in\\_the\\_netherlands.download\\_pdf&ns.type=pdf&ns.url=http%3A%2F%2Fwww.rivm.nl%2Fdsresource%3Fobjectid=rivmp:11917&type=org&disposition=inline&ns.nc=1](http://nl.sitestat.com/rivm/rivm-nl/s?link.en.documents_and_publications.scientific.reports.2006.mei.potential_health_benefits_and_cost_effectiveness_of_tobacco_tax_increases_and_school_intervention_programs_targeted_at_adolescents_in_the_netherlands.download_pdf&ns.type=pdf&ns.url=http%3A%2F%2Fwww.rivm.nl%2Fdsresource%3Fobjectid=rivmp:11917&type=org&disposition=inline&ns.nc=1)

Figure 3. Per capita trend in Colorado cigarette sales



Data sources: Colorado Department of Revenue tax data; U.S. Census population data

## Cessation attempts, success, strategies

### Key Findings:

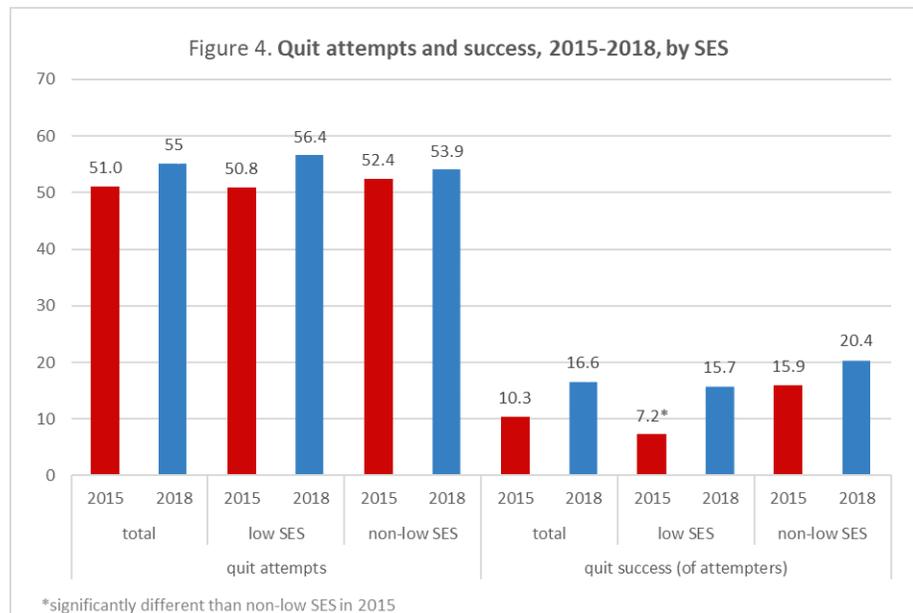
- Quit success rates significantly improved overall and among English-dominant Latinx and low SES quit-attempters.
- Quit success continued to lag among Spanish-dominant Hispanic/Latinx smokers. Spanish-language, culturally relevant programs may need to be increased or improved.
- Only half (53%) of smokers who saw a healthcare provider were advised to quit, unchanged from 2015. Provider advice to quit was least common among young adults and declined in this group since 2015.
- Uninsured adults were the most unaware of the QuitLine cessation resource and were least likely to call the QuitLine, a consistent trend since 2012.

Prevention of smoking initiation has the greatest long-term potential to end the tobacco epidemic, but cessation by current smokers has the largest immediate impact on smoking prevalence. Quit attempts often end in relapse, and many smokers try repeatedly before eventually achieving lasting abstinence.<sup>21</sup>

**Quit attempts and success.** During 2015-18, the rate of past-year quit attempts (not smoking for 24+ hours because trying to quit) held steady (55.0% in 2018). There were no significant changes in quit attempt rates across demographic characteristics.

Successful quit rates (at least three months abstinent at interview) significantly increased, from 10.3% of quit-attempters in 2015 to **16.6%** in 2018. Several groups saw significant increases in successful quit rates, including quit-attempters aged 25-29 years (5.2% to **21.0%**), Anglos (10.2% to **19.0%**), English-dominant Hispanics/Latinxs (7.9% to **20.6%**), males (7.7% to **16.0%**), and perhaps most notably, low SES quit-attempters (7.2% to **15.7%**) (Figure 4).

**Cessation gap.** Quit attempts were similar across ethnic and SES groups, but quit success was significantly lower among Spanish-dominant Hispanic/Latinx (**4.4%**) than among Anglo (19.0%) and English-dominant Hispanic/Latinx (20.6%) quit-attempters.



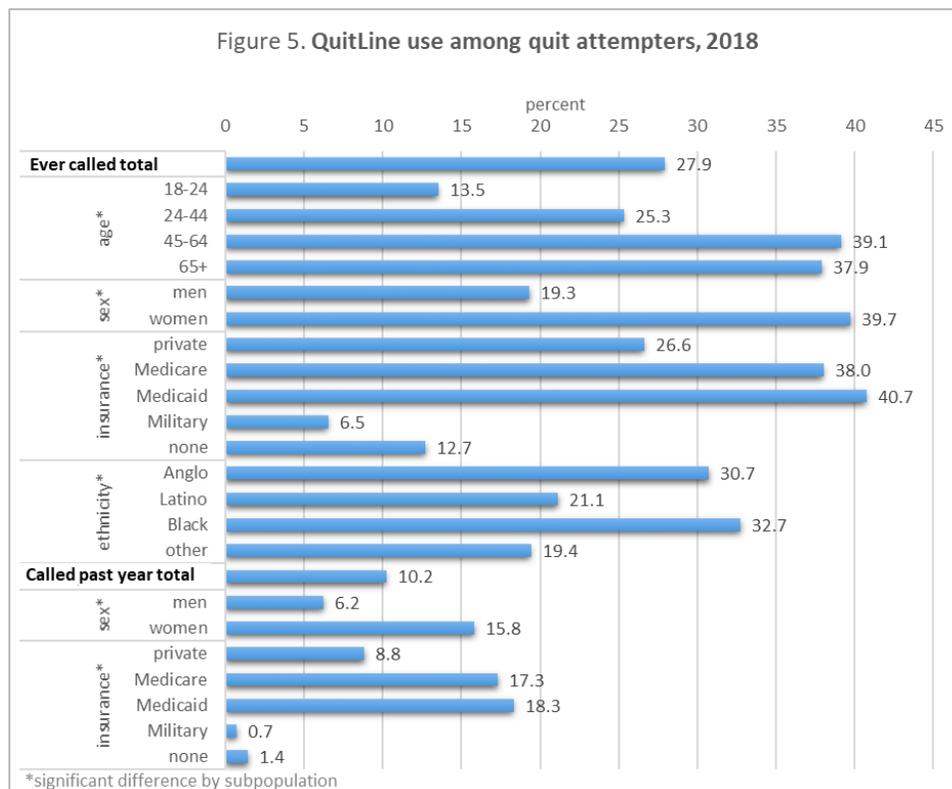
\* Significant difference between 2015 and 2018.

<sup>21</sup> American Lung Association. Most Smokers Make Multiple Quit Attempts Before They Quit Smoking for Good. Accessed 2/15/14: <http://www.lung.org/press-room/press-releases/lung-assn-launches-quit-in-you.html>.

**Evidence-based cessation treatment (EBT).** Use of EBT is associated with increased likelihood that a quit attempt succeeds. EBTs include nicotine replacement therapy (NRT: patch, gum, lozenge, etc.), counseling (in person or through a telephone quitline), and prescription medicines (bupropion and varenicline).<sup>22</sup>

**Colorado QuitLine.** The proportion of smokers that had heard of the Colorado QuitLine in 2018 remained unchanged from 2015 (83.3% vs. 84.8% respectively). QuitLine awareness in 2018 was significantly less common among young adults (**71.4%**) than older adults 45-64 years (93.1%), men vs. women (**77.0%** vs. 91.8%), and uninsured vs. Medicare or Medicaid (**69.4%** vs. 93.5% and 89.4%, respectively).

Although Colorado QuitLine ever-use (Figure 5) was unchanged during 2015-2018 (27.9% in 2018 among past-year quit-attempters), QuitLine use during a recent quit-attempt nearly doubled in 2018, to **10.2%** from 5.2% in 2015. Among all smokers, however, including those who did not attempt quitting in 2018, only 6.8% called the QuitLine in 2018, an unchanged rate since 2015.



Groups less likely to have used QuitLine in 2018 included men and the uninsured; the latter group has reported less QuitLine awareness and use since 2012, a notable gap since the uninsured face paying for clinical cessation support from their own pockets.<sup>23</sup>

**Nicotine replacement therapy (NRT).** Among Colorado smokers who made a past-year quit-attempt, nearly one-quarter (28.6%) used nicotine replacement therapy, unchanged from 2015 (Figure 6) but significantly greater than in 2001 (16.5%). In 2018, NRT use rates were similar between men and women (28.2% vs. 29.1%) and between low- and higher-SES smokers (30.6%

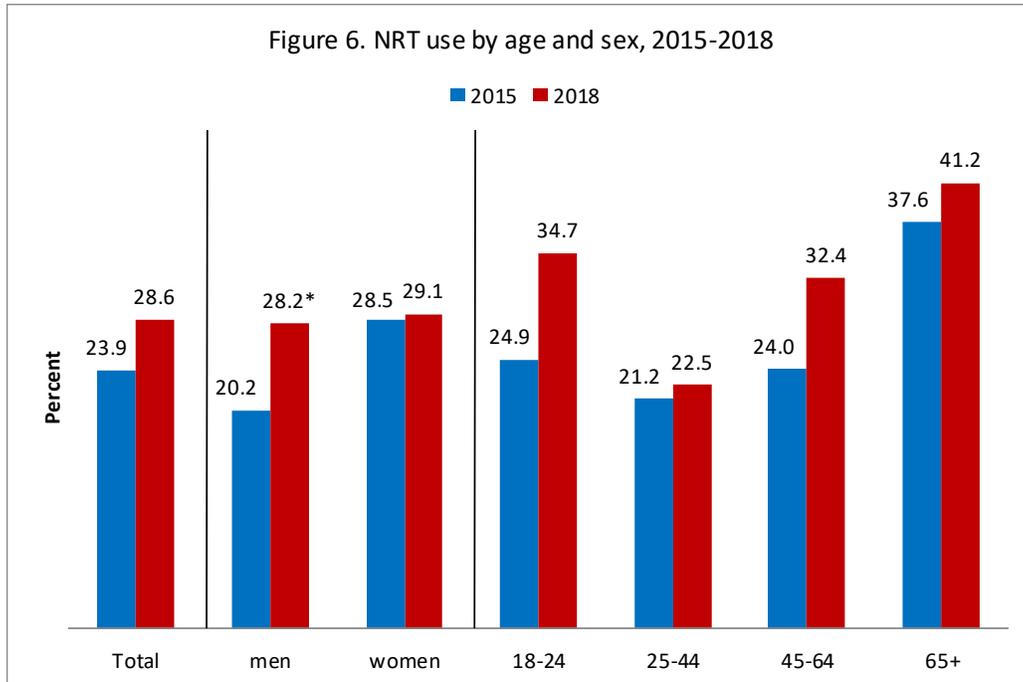
<sup>22</sup> Fiore, M, Jaen, C, Baker, T, et al. 2008. *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice*

*Guideline.* Rockville, MD: U.S. Department of Health and Human Services. Public Health Service.

<sup>23</sup> In 2018, the uninsured population was more than one-third (38.9%) Anglo and one-third (33.1%) Spanish-dominant Hispanic/Latinx. More than half the uninsured were aged 25-44 (56.7%), and more than one-third (36.6%) had household income above 200% of the federal poverty level.

vs. 27.3%) but significantly lower among Hispanic/Latinx (Spanish-dominant: **6.1%** and English-dominant: **14.5%**) than Anglo (33.2%), Black/AA (34.1%), AI/NA (31.8%) or AA/PI (34.4%) quit-attempters.

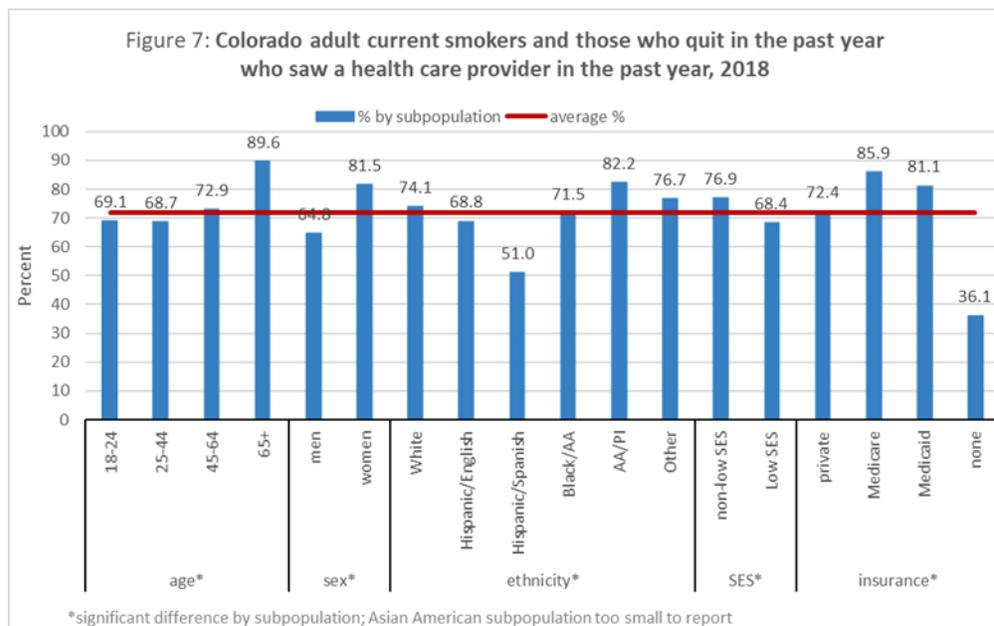
During 2015-2018, NRT use increased nominally (non-significantly) among young adults (24.9% to 34.7%) and 45-64 year olds (24.0% to 32.4%).



\*Significant change from 2015

Varenicline (Chantix®). Use of varenicline was unchanged in 2018, at 7.5% of quit attempters. Use varied by age group, with young adult quit attempters reporting almost no use (0.2%), and by ethnicity, with Anglos having significantly higher use at 10.2% than other ethnic groups (≤3.0%).

Health care visits, provider advice to quit, cessation referral. Almost three-fourths (71.8%) of smokers saw a health care provider in the previous 12 months (Figure 7), unchanged since 2012. Adults aged 65+ were most likely, and the uninsured and Spanish-dominant Hispanic/Latinx smokers were least likely, to have seen a provider. Men were less likely than women to see a provider



(**64.8%** vs. 81.5%) and STWYA were less likely to see a doctor than non-STWYA (**55.4%** vs 85.5%).

Nearly three-fourths (72.6%) of smokers who did see a healthcare provider were advised to quit, an unchanged rate from 2015. Only young adults were advised significantly less often in 2018 than in 2015 (**52.1%** vs. 70.7%), and their 2018 rate was significantly lower than among other age groups.

Slightly more than half (53.2%) of smokers with past-year healthcare visits were referred to cessation treatment, unchanged from 2015. Referrals did not differ among demographic categories. The QuitLine referral rate remained unchanged (68.9% in 2018), as did referrals to NRT/prescription, cessation class, and the internet. Referrals to a class (2.2%) or the internet (0.3%) remained rare; about one in nine (6.1%) smokers with a healthcare visit were referred to their insurance plan or the hospital. Ethnicity was not associated with rates of provider advice or referral; some populations may still need education or intervention to consider seeing their health provider about quitting smoking.

## Secondhand smoke exposure (SHS): homes, vehicles, workplaces, continuing disparities

### Key Findings:

- Smoke-free household rules increased among households with and without smokers. An estimated one-quarter of households with smokers did not have smoke-free home rules, and almost 20% reported smoking inside the house.
  - Smoking in the home was more commonly reported among adults aged 45+, Black/AA, AI/NA, low SES, LGBT, and households without children under 18.
- 

SHS exposure is associated with 41,000 annual U.S. deaths, including 400 infant deaths.<sup>24</sup> Smoke-free policies reduce SHS exposure and related deaths;<sup>25</sup> protect children and adult nonsmokers from SHS exposure; promote quit attempts; support quit-attempters to succeed, and eventually reduce smoking prevalence. Smoke-free policies also reduce cigarette consumption, increase quit rates in the working population,<sup>26,27</sup> and reduce smoking initiation.<sup>28,29</sup>

**Household smoking rules and behaviors.** During 2015-18, smoke-free home rules significantly increased overall, to **89.5%** of all households in 2018, and among households with smokers (68.2% to **77.7%**) and without smokers (90.9% to **93.4%**).

Actual smoking inside homes (past 30 days) significantly declined during 2015-18, from 2.5 % to **1.5%** in homes without a resident smoker and from 25.6% to **19.7%** in homes with a resident smoker. Among households with smokers, in-home smoking rates varied significantly by age, ethnicity, SES, sexual orientation, and having children living at home (Figure 8). Similar differences were found for smoke-free home rules, except rate differences by sexual orientation were not statistically significant.

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<sup>24</sup> Center for Disease Control "Smoking & Tobacco Use"  
[https://www.cdc.gov/tobacco/basic\\_information/secondhand\\_smoke/index.htm](https://www.cdc.gov/tobacco/basic_information/secondhand_smoke/index.htm) Accessed March 23, 2020

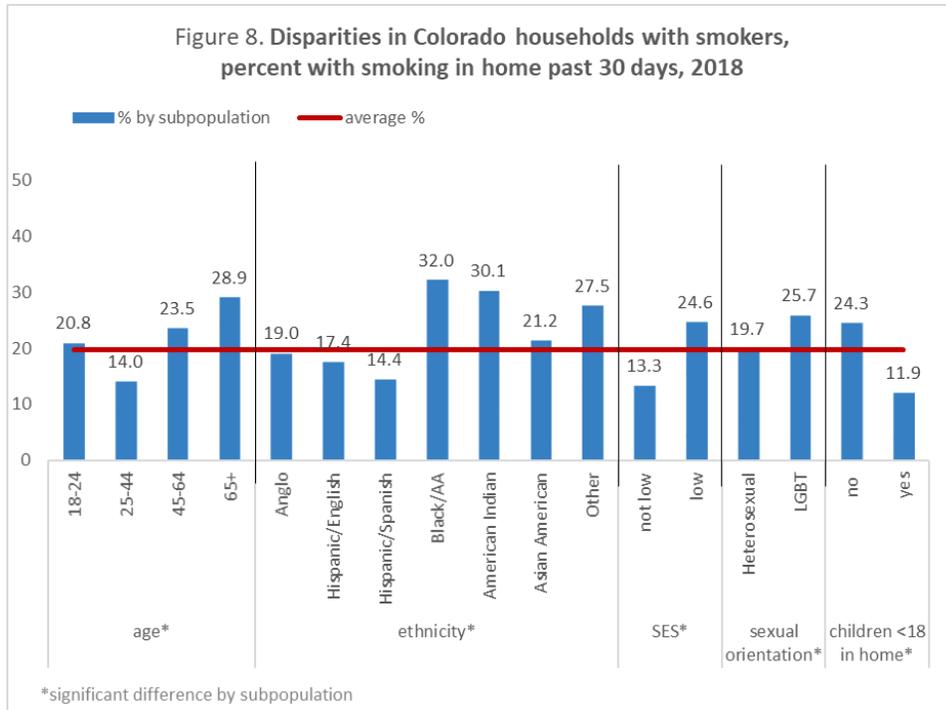
<sup>25</sup> U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/index.html>

<sup>26</sup> Heironimus, J, "Impact of Workplace Restrictions on Consumption and Incidence," Philip Morris, Bates No. 2045447779-2045447806, January 22, 1992.

<sup>27</sup> U.S. Department of Health and Human Services (HHS), The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, Atlanta, GA: HHS, U.S. Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006, [http://www.cdc.gov/tobacco/data\\_statistics/sgr/sgr\\_2006/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2006/index.htm).

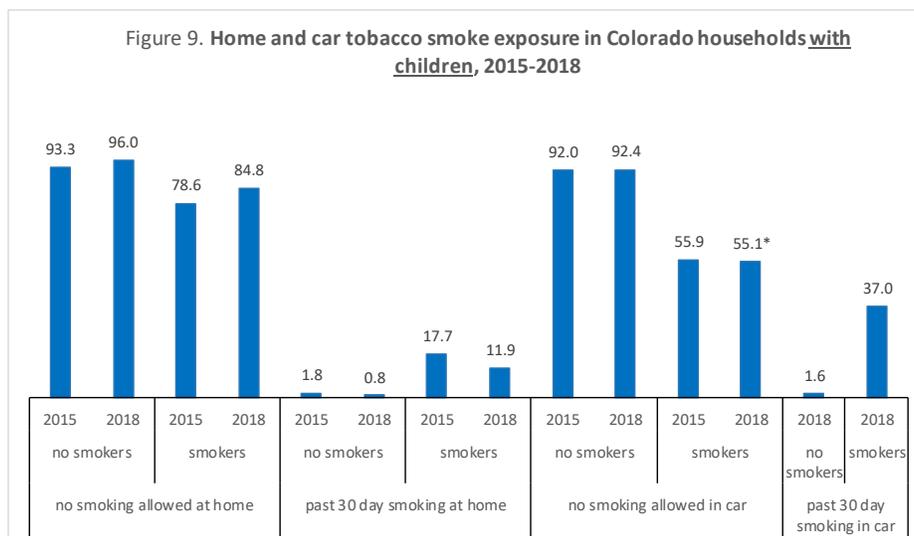
<sup>28</sup> Guide to Community Preventive Services. Reducing tobacco use and secondhand smoke exposure: smoke-free policies. [www.thecommunityguide.org/tobacco/smokefreepolicies.html](http://www.thecommunityguide.org/tobacco/smokefreepolicies.html). Updated November 2012.

<sup>29</sup> Siegel, M, et al., "Effect of local restaurant smoking regulations on progression to established smoking among youths," Tobacco Control 14: 300-306, October 2005.



**Personal vehicle smoking rules.** Colorado vehicle owners were slightly more likely to report smoke-free rules (80.1%, up from 78.4%). Most vehicle owners (90.0%) in non-smoking households, and nearly half (49.8%) of owners in households with smokers, had smoke-free vehicle rules in 2018. Actual smoking in vehicles (past 30 days) was reported by 11.3% of owners, including 40.8% of households with smokers and 1.8% of households without smokers. Higher rates were reported by AI/NA and low SES households with smokers (AI/NA: 72.0% vs. Anglo: 42.3%; low SES: 45.6% vs. non-low SES: 32.8%).

**SHS exposure in households with children.** A large majority of households with resident smokers and children continued to report smoke-free home rules in 2018 (84.8%) (Figure 9); 11.9% of households with smokers and children reported actual in-home smoking (past 30 days). This rate was lower than in households with smokers but no children (24.3%) and much higher than in homes with children and no resident smokers (0.8%).

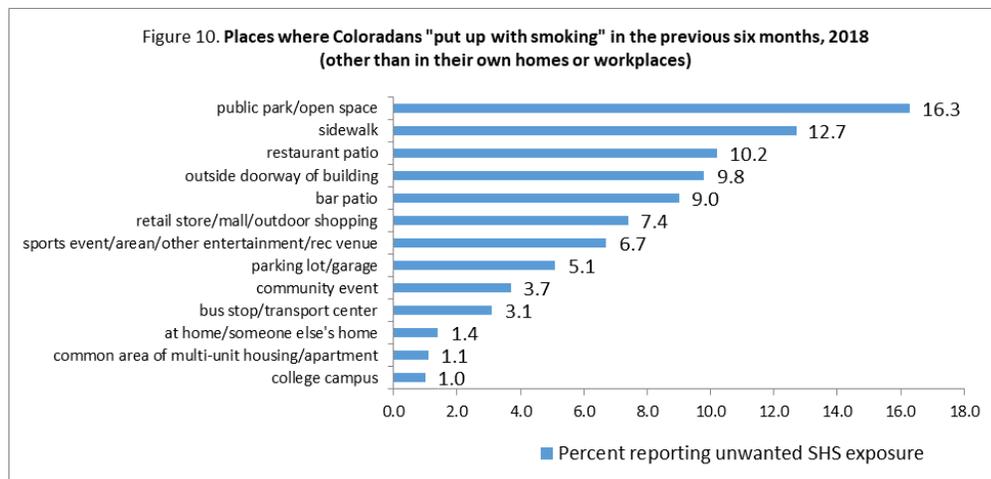


More than half of households with smokers and children continued to report smoke-free rules in personal vehicles, with 55.1% reporting never allowing smoking in the vehicle. Such rules were much more common (**92.4%**) in families without smokers, unchanged from 2015. In 2018, more than a third (37.0%) of households with smokers and children reported actual (past 30-day) smoking in personal vehicles, compared with 1.6% in households without smokers.

\*Significant difference between years; all rates in 2018 differ significantly between homes with vs. without resident smokers.

**Workplace SHS exposure.** Colorado saw a dramatic reduction in (past-30-day) workplace SHS exposure, from 40.9% of workers reporting exposure in 2015 to **7.7%** in 2018. Nearly one-third of SHS-exposed workers reported fewer than three days of exposure indoors (32.8%) or outdoors (30.1%). Daily workplace exposure was less common, reported by 2.0% of workers indoors and 16.2% outdoors. Secondhand vapor exposure indoors was more common, reported by 14.0% of workers; <3 days of exposure indoors was reported by 35.7%; outdoors, vapor exposure prevalence was 30.3% <3 days, and 12.4% daily.

**Public SHS exposure.** The proportion of adults who reported “having to put up with tobacco smoke” (past six months) increased significantly to **41.2%** in 2018 from 33.6% in 2015. The most common exposure location was a park or open space (16.3%; Figure 10); exposure outside doorways fell by roughly half, changing from the most common exposure location in 2015 (19.0%) to the fourth most common in 2018 (9.8%). About one-fifth (21.2%) of Colorado adults asked someone not to smoke around them or their family in 2018, unchanged from 2015.



**SHS policy views.** More than half of Coloradans support prohibiting smoking in several places, including inside cars when children are traveling in them (92.2%), at outdoor restaurant dining patios (71.1%), in multiunit housing (63.5%), and at outdoor public places (60.2%). Smokers were significantly less likely than nonsmokers to support smoke-free policies, including policies in outdoor public areas (**39.0%** vs. 64.0%), patios (**48.7%** vs. 75.3%), and vehicles with children present (**89.2%** vs. 92.7%). Fewer than half of Coloradans support smokefree outdoor workplaces (44.4%).

## Multi-unit housing

### Key Findings:

- Smoking prevalence, e-cigarette use, and hookah use were significantly higher than among non-MUH residents. MUH smokers may need innovative programs such as community connectors and navigation to cessation services.
  - MUH and non-MUH residents alike support smoke-free MUH policies (64.7% and 60.7%, respectively).
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Residents in multi-unit housing (MUH) complexes may be exposed to SHS entering from other units. An estimated half a million Colorado MUH residents are exposed to SHS in their units.<sup>30</sup> A recent study concluded that Colorado could save \$4.5 million annually by having all federally subsidized housing smoke-free; the savings would come from reductions in SHS-related healthcare costs, renovation of smoking-permitted units, and smoking-attributable fires.<sup>31</sup>

**Tobacco Use.** In 2018, Colorado MUH residents had significantly higher ever- and current smoking rates than non-MUH residents (current smoking: **19.6%** vs. 13.5%; ever-smoking: **46.2%** vs. 39.9%). Current smoking prevalence among MUH residents was unchanged from 2015. MUH status was not associated with rates of daily smoking, proportions of heavy smokers, past-year quit attempts, past-year quit success, or evidence-based cessation treatment use.

MUH residents were more likely than non-MUH residents to have ever used (**34.3%** vs. 23.4%) and to currently use (**12.5%** vs. 7.1%) e-cigarettes, and to ever use hookahs (**9.2%** vs. 5.4%).

**SHS exposure.** MUH residents were slightly but significantly less likely than non-MUH residents to report smoke-free home rules (**86.6%** vs. 90.7%); there was no difference in actual in-home smoking (6.6% MUH vs. 5.9% non-MUH) or in proportions of resident smokers in home. MUH residents were more likely to have asked someone not to smoke around them or their family (**25.2%** vs. 21.4%). MUH common areas were rarely cited (1.8%) by MUH residents as the most recent place where they breathed someone else's tobacco smoke. Majorities of both MUH and non-MUH residents support smoke-free MUH policies (64.7% and 60.7%, respectively).

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<sup>30</sup> Brian A. King, Stephen D. Babb, Michael A. Tynan, Robert B. Gerzoff, National and State Estimates of Secondhand Smoke Infiltration Among U.S. Multiunit Housing Residents, *Nicotine & Tobacco Research* 2013; 15(7): 1316–1321, <https://doi.org/10.1093/ntr/nts254>

<sup>31</sup> King BA, Peck RM, Babb SD. National and State Cost Savings Associated With Prohibiting Smoking in Subsidized and Public Housing in the United States. *Prev Chronic Dis* 2014; 11:140222. DOI: <http://dx.doi.org/10.5888/pcd11.140222>.

## Other non-electronic forms of tobacco

### Key Findings:

- Ever-use of a non-cigarette tobacco products increased significantly. Cigar and chewing tobacco rates were largely unchanged, and hookah use declined.

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Nearly one-third of adults (**31.0%**) had ever used a non-cigarette tobacco product (cigar, chewing tobacco/snuff, hookah) in 2018, a significant increase from 27.8% in 2015.

**Cigars:** Current cigar smoking (every day or some days) remained unchanged since 2015 (3.7%). Few men (0.9%) smoked cigars daily. Current use among young adult men was nominally but not significantly higher (11.1%) than among older age groups; the young adult rate was unchanged since 2015 and did not vary by ethnicity, sexual orientation, or SES.

**Chewing tobacco:** In 2018, 3.6% of adults (6.9% of men, 0.3% of women) used chew, unchanged from 2015. Male current smokers were more likely than former and nonsmokers to use chewing tobacco (**10.8%** vs. 6.1%), a difference that was not present in 2015. Use was most common among AI/AN male smokers, at 33.8%. Use was also more common among men younger than 64 (7.6%) than men aged 65+ (3.0%); among rural than non-rural men (**13.2%** vs. 5.8%); among Anglo (**7.7%**) than Spanish-dominant Hispanic/Latinx (0.6%) or Black/AA (2.2%), and heterosexual (**7.7%**) than homosexual men (4.2%).

**Hookah:** Sometimes falsely advertised as safe, hookah smoke exposes users to both tobacco toxins and toxicants from fuel used to burn the tobacco. Communicable diseases can be transmitted among users of shared mouthpieces or multiple mouthpieces connected to a single water bowl.<sup>32</sup> Hookah ever-use to smoke tobacco declined, from 10.6% to **6.0%**. In 2018, ever-use was significantly higher among men vs. women (**9.3%** vs. 2.8%), young adults vs. adults aged 45+ (**13.7% vs. <2%**), and LGBT vs. heterosexual adults (**12.3%** vs. 6.0%). Among Colorado cigarette smokers, 15.0% have ever smoked a hookah.

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<sup>32</sup> WHO Study Group on Tobacco Product Regulation. Waterpipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators. 2005. Tobacco Free Initiative. World Health Organization. Accessed 20 May 2009 at [www.who.int/tobacco/global\\_interaction/tobreg/Waterpipe%20recommendation\\_Final.pdf](http://www.who.int/tobacco/global_interaction/tobreg/Waterpipe%20recommendation_Final.pdf).

## Electronic smoking devices<sup>33</sup>

### Key Findings:

- E-cigarette use increased. Current smokers were almost three times as likely as other adults to report current e-cigarette use.
- The highest rates were among adults younger than 45, low SES, AI/NA, and LGBT adults.
- Young adult e-cigarette use nearly tripled, and male use nearly doubled.
- Among young adults, current e-cigarette use was more prevalent among both current (79.2%) and former smokers (76.7%) than among nonsmokers (23.0%).

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The National Health Interview Survey, which has monitored the health of the nation since 1957, started collecting data on e-cigarettes in 2014, when 12.6% of adults had ever tried an e-cigarette and 3.7% were current users.<sup>34</sup> Use has since increased rapidly, with higher prevalence among current smokers.<sup>35</sup> Some smokers may use e-cigarettes to help with cessation, and e-cigarette use may pose less risk than continuing to smoke cigarettes,<sup>36,37</sup> but occasional e-cigarette use may also contribute to continued smoking among many smokers<sup>32</sup> and may lead smoking-resistant adolescents into smoking regular cigarettes.<sup>38, 39, 40, 41, 42</sup>

E-cigarette ever-use among Colorado adults increased somewhat during 2015-18, from 22.7% to **25.5%**. Ever-use differed significantly across most demographic groups (Table 3). Adults younger than 45, low SES, AI/NA, and LGBT adults had the highest rates.

Current e-cigarette use significantly increased during 2015-18, from 5.6% to **8.5%**; the increase was driven primarily by young adult urban male Anglos. Anglos were the only ethnic group with a significant increase in current use (5.7% to **8.6%**). Young adult use nearly tripled, from 11.8% to

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<sup>33</sup> Electronic smoking devices include: e-cigarettes and other electronic “vaping” products, including electronic hookahs (e-hookahs), vape pens, e-cigars, and others

<sup>34</sup> Schoenborn CA, Gindi RM. Electronic cigarette use among adults: United States, 2014. NCHS data brief, no. 217. Hyattsville, MD: National Center for Health Statistics. 2015.

<sup>35</sup> McMillen, R, Gottlieb, MA, Shaefer, RMW, Winickoff, JP, Klein, JD. Trends in electronic cigarette use among U.S. adults: use is increasing in both smokers and nonsmokers. *Nicotine & Tobacco Research*, 2015; 1195-1202.

<sup>36</sup> McRobbie H, Bullen C, Hartmann-Boyce J, Hajek P. Electronic cigarettes for smoking cessation and reduction. *Cochrane Database of Systematic Reviews* 2014, Issue 12. Art. No.: CD010216. DOI:10.1002/14651858.CD010216.pub2.

<sup>37</sup> Zhuang, Y-L, Cummins, SE, Sun, JY, Zhu, S-H. Long-term e-cigarette use and smoking cessation: a longitudinal study with US population. *Tobacco Control*, 2016;25:i90-i95. doi: 10.1136/tobaccocontrol-2016-053096.

<sup>38</sup> Barrington-Trimis JL, Urman R, Leventhal AM, Gauderman WJ, Cruz TB, Gilreath TD, Howland S, Unger JB, Berhane K, Samet JM, McConnell R. E-cigarettes, Cigarettes, and the Prevalence of Adolescent Tobacco Use. *Pediatrics* 2016; 138(2):e2 0153983

<sup>39</sup> Primack BA, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Progression to Traditional Cigarette Smoking After Electronic Cigarette Use Among US Adolescents and Young Adults. *JAMA Pediatr* 2015;169(11):1018-1023. doi:10.1001/jamapediatrics.2015.1742

<sup>40</sup> Wills TA, Sargent JD, Gibbons FX, Pagano I, Schweitzer R. E-cigarette use is differentially related to smoking onset among lower risk adolescents. *Tob Control [Online First]* 2016. doi:10.1136/tobaccocontrol-2016-053116

<sup>41</sup> Leventhal AM, Strong DR, Kirkpatrick MG, Unger JB, Sussman S, Riggs NR; Stone MD, Khoddam R, Samet MJ, Audrain-McGovern J. Association of Electronic Cigarette Use With Initiation of Combustible Tobacco Product Smoking in Early Adolescence. *JAMA* 2015;314(7):700-707. doi:10.1001/jama.2015.8950

<sup>42</sup> Huang LL, Kowitz SD, Sutfin EL, Patel T, Ranney LM, Goldstein AO. Electronic Cigarette Use Among High School Students and Its Association With Cigarette Use And Smoking Cessation, North Carolina Youth Tobacco Surveys, 2011 and 2013. *Prev Chronic Dis* 2016; 13:150564. DOI: <http://dx.doi.org/10.5888/pcd13.150564>.

**33.9%**; male use nearly doubled (6.3% to **11.5%**), and urban use increased (5.8% to **8.6%**).

Current e-cigarette use was substantially more common among current smokers (**36.1%**) than former smokers (9.6%) or nonsmokers (3.9%). Among young adults, current e-cigarette use was more prevalent in current (79.2%) and former smokers (76.7%) than among nonsmokers (**23.0%**).

Table 3. Ever and current e-cigarette use (%), Colorado 2018				
	Ever use	Current use among...		
		All adults	Smokers	Nonsmokers <sup>a</sup>
<b>All</b>	25.5	8.5	<b>36.1</b>	<b>5.5</b>
<b>Sex</b>				
men	<b>30.9</b>	<b>11.5</b>	38.9	<b>7.9</b>
women	<b>20.2</b>	<b>5.7</b>	32.4	<b>3.3</b>
<b>Age group</b>				
18-24	<b>55.7</b>	<b>33.9</b>	<b>79.2</b>	<b>27.4</b>
25-44	<b>33.8</b>	<b>10.5</b>	<b>42.8</b>	<b>6.3</b>
45-64	<b>15.3</b>	3.6	<b>21.2</b>	<b>1.6</b>
65+	<b>5.6</b>	1.2	<b>13.1</b>	<b>0.5</b>
<b>Low SES</b>				
no	<b>20.4</b>	<b>5.5</b>	39.0	<b>3.5</b>
yes	<b>33.5</b>	<b>12.3</b>	35.2	<b>8.1</b>
<b>Ethnicity</b>				
Anglo	25.3	8.6	39.3	5.5
Hispanic/English	29.1	9.9	34.2	7.5
Hispanic/Spanish	<b>15.2</b>	<b>2.5</b>	9.4	1.8
Black/African American	29.5	10.3	28.4	5.8
American Indian/Alaska Native	35.0	15.4	n/a	9.1
Asian American/Pacific Islander	30.6	11.2	n/a	8.0
Other	31.5	10.9	38.7	2.1
<b>Sexual orientation</b>				
heterosexual	<b>25.0</b>	<b>7.7</b>	<b>35.8</b>	<b>4.9</b>
lesbian/gay/bisexual/transgender	<b>48.1</b>	<b>24.7</b>	<b>61.0</b>	<b>17.0</b>

<sup>a</sup> Nonsmokers includes former smokers.

**Bold** estimates are significantly different within characteristic.

Ever-and current use differ by smoking status in every category.

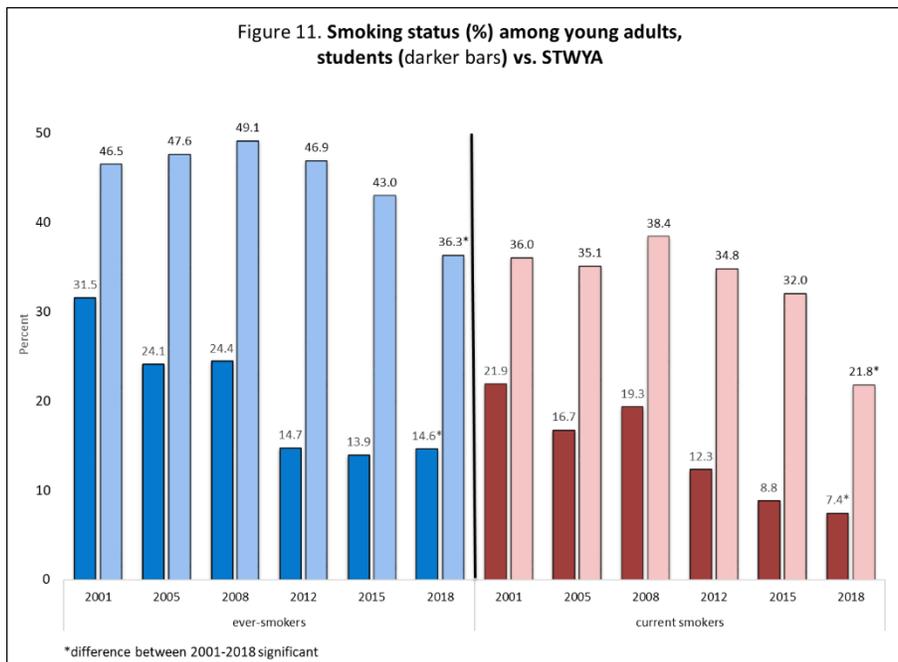
## Straight to work young adults

### Key Findings:

- Smoking prevalence significantly declined in STWYA but was still almost three times higher (**21.8%**) than among students (7.4%). Workplace strategies could be targeted to young adults.
- Almost 25% of STWYA reported smoking in the car (compared to less than 10% of students).

Straight-to-work young adults (STWYA) have completed less than a college degree, are not current students, and are currently working; in this section they are compared with young adult students ("students").

During 2015-18, current smoking prevalence declined significantly in the STWYA population, from 32.0% to **21.8%**, but was nearly three times the rate among students in 2018 (**7.4%**) (Figure 11). Ever-smoking rates were unchanged from 2015 in both groups and remained higher among STWYA (**36.3%**) than students (14.6%). Across the period 2001-2018, both student and STWYA smoking rates decreased significantly, and the gap narrowed between STWYA and students for both ever- and current smoking. Almost two-thirds of STWYA smokers smoked daily (58.8%), unchanged from 2015 and not statistically different from student daily smoking.



Among STWYA smokers, quit-attempt prevalence increased to **72.0%** from 52.2% in 2015. Quit success (12.4%) was unchanged from 2015, and neither rate differed significantly from student rates.

STWYA were no more likely than students to ever (63.9%) or currently (44.1%) use e-cigarettes. STWYA used chewing tobacco more often than students (**8.7%** vs. 1.5%) (Table 4). Ever-hookah use was the same (19.3% among STWYA).

Table 4. <b>Non-cigarette tobacco and SHS behaviors</b> <b>by straight-to-work status, Colorado 2018</b>		
	STWYA (%)	Students (%)
Current chewing tobacco use*	8.7	1.5
Current cigar use	6.9	6.4
Past 30-day smoking in home	8.5	9.3
Past 30-day smoking in vehicle*	23.4	8.3

\*significant difference between STWYA and student

The mean number of quit attempts did not differ between STWYA and students. NRT use remained unchanged among STWYA quit-attempters, 27.9%. STWYA smokers were significantly less likely than students to see a doctor in the past year (**55.4%** vs. 85.5%); among those who did see a doctor, there was no difference in advice to quit (49.3% among STWYA).

STWYA and students had similar prevalence of smoke-free homes (83.3% among STWYA) and similar rates of past-30-day smoking in the home (8.5% among STWYA), with no change from 2015. STWYA reported past-30-day smoking in the car more often than students did (**23.4%** vs. 8.3%), despite having similar rates of smoke-free vehicle rules (57.7% of STWYA have a smoke-free auto rule, unchanged from 2015). The difference may be due to higher smoking prevalence among STWYA.

## Smoking and mental illness<sup>43</sup> / mental limitations<sup>44</sup>

### Key Findings:

- Current smoking declined significantly in the last ten years among adults with MI/ML.
- MI/ML smokers were more likely than smokers without MI/ML have seen a healthcare provider in the past 12 months (83.8% vs. 66.7%). Cessation strategies could strengthen cessation support motivation and resources for providers serving MI/ML patients.
- Other key smoking measures were unchanged, and MI/ML smokers reported a significantly higher rate of daily smoking than other adults (**80.0%** vs. 69.2%).

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About one in seven Colorado adults (19.0%) reported a diagnosed mental illness (MI) or mental limitation (ML). Adults with MI/ML were more likely than others to be ever-smokers and current smokers (**52.2%** vs. 39.1% and **24.2%** vs. 13.0%, respectively). Current smoking prevalence was unchanged during 2015-18 among MI/ML adults. Among MI/ML smokers, daily smoking prevalence was unchanged during 2015-18 (80.1% and 80.0%, respectively), and CPD remained unchanged among daily smokers. The MI/ML adult population had a significantly higher rate of daily smoking than other adults (**80.0%** vs. 69.2%).

MI/ML smokers were more likely than non-MI/ML smokers to have seen a health care provider in the past 12 months (**83.8%** vs. 66.7%); to currently use e-cigarettes (**19.5%** vs. 6.1%); and to ever have used e-cigarettes (**42.8%** vs. 21.7%). The groups had similar rates of provider advice to quit smoking, referral to cessation assistance, use of Chantix in quit attempts, QuitLine calls in the past year, and NRT use. In households with a smoker, smoke-free home rules were similarly common among MI/ML and non-MI/ML households, but past-30-day smoking in the home was more common in MI/ML households (**23.6%** vs. 18.3%). Among households with smokers, smoke-free vehicle rules were less common among those with MI/ML (41.1% vs. **54.0%**), and past 30-day smoking in vehicles was more common (37.3% vs. **48.0%**).

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<sup>43</sup> adults who report having a diagnosed mental illness

<sup>44</sup> adults who report that their activity is limited by a mental or emotional condition