

**Program Evaluation Group** 

Tobacco Follow-up Study, Colorado adults, 2015

June 2015



# **Community Epidemiology & Program Evaluation Group**

cepeg-ucdenver.org

## Faculty and staff

Arnold H. Levinson, PhD MJ, Director Michele Kimminau, BA, General Manager Katherine James, PhD MSPH MSCE (School of Medicine) Whitney Jones, PhD MSPA Yaqiang Li, PhD MPH Ming Ma, MD, MS Sara L. Cooper, PhD MSPH Patricia Alvarez Valverde, PhD MPH Kathie Garrett, MA NCC MINT Carol-Ann Demaio Goheen, MSPH Anne Hill, MA MPH Alice Franco, MA Kathleen Moreira, BA Vicki Weister, BA Erin Martinez, MA

### **Affiliates**

Yvonne Kellar-Guenther, PhD William Betts, PhD Ernesto A. Moralez, MPH Tessa L. Crume, PhD MSPH Kristin Kidd, MA

The current information was prepared by Kathy James, Ming Ma, and Yaqiang Li.

This report provides findings from the Tobacco Follow-Up Study (TFUS), 2015 for Colorado adults. Data came from TFUS, a cross-sectional survey of randomly selected respondents from the *Colorado Adult Population Sample-Survey Research Registry (CAPS-SRR)*, a registry of adults in Colorado representing a convenience sample from The Attitudes and Behaviors Survey cohort. TFUS collected information on current and past year tobacco use, cessation resources, secondhand exposure related to residential multiple-unit housing, and attitudes towards cessation resources. Only eligible adults from CAPS-SRR were available for selection into the sample. Eligibility included availability to complete the survey (not incarcerated or hospitalized), able to locate through mail or telephone, and not a current participant in the ongoing marijuana survey, 2015. This allowed for 7,634 eligible participants from CAPS-SRR from which 1,307 were selected for the sample. The total number of Colorado adult (aged 21 and older) participants was 618. This report presents the prevalence of key findings from the survey.

### **About this report**

The report relies on a 95% confidence measure (p<0.05) to identify significant changes and differences, the ones that are less than 5% likely to be chance findings caused by sampling error. Where rates presented in this report are significantly different across a population group, it appears in bold typeface in tables and charts. Rates described as *unchanged* or *similar* are not significantly different. All rates are weighted estimates and present prevalence and confidence limits for the population as a whole and in a few circumstances by the following sociodemographic groups:

- sex (male/female)
- age group (21-24, 25-34, 35-44, 45-54, 55-64, 65+)
- ethnicity (Anglo, Latino, black/African American, other)
- socio-economic status (Low, Non-low) determined by income, insurance type, federal poverty level and physical disability
- health insurance (private, Medicare, Medicaid, none)
- Rural (Rural/urban)
- education (no high school diploma, high school graduate/GED, some college, ≥college graduate)

### **Figures of TFUS Analysis**

- 1) Percent of Colorado adults who are current smokers and stop smoking at least once in the past 12 months reporting having used specific cessation tools the last quit attempt, 2015
- 2) Distribution of types of multi-unit housing reported by Colorado adults, 2015
- 3) Percent of Colorado adults reporting that tobacco smoke odor gets into their residence by season, 2015
- 4) Percent of adults in 2015 responding that they would favor a policy that prohibits smoking.......
- 5) The distribution of insurance coverage as reported by Colorado adult smokers, 2015
- 6) The distribution of cessation services reported to be covered by insurance plans of Colorado smoking adults, 2015
- 7) The distribution of who paid for cessation services on the last quit attempt in Colorado smoking adults, 2015

## **Abbreviations**

LCL: lower 95% confidence limit (margin of error) UCL: upper 95% confidence limit (margin of error)

FPL: federal poverty level

Cessation Behaviors in the Smoking Colorado Adult Population, 2015



In 2015, the past 30 day smoking prevalence in Colorado adults was 14.2% (10.3%, 18.2%) with 8.7% (6.0%, 11.4%) of Colorado adults reported smoking every day and 3.8% (1.7%, 6.0%) reported smoking some days. Note: for 2015, the youngest respondents were 21 years old because participants age 18 and over were selected in 2012.

Cessation among current smokers is the quickest way to decrease smoking prevalence. While many quit attempts end with a return to smoking, successful cessation reduces smoking prevalence immediately among all age groups. The impact of failed quit attempts on motivation to try again is not well known, and the relationship between number of previous attempts and eventual successful cessation is not yet understood.

Similar to findings in TABS 2012, "Cold turkey" continues to be the most prevalent cessation method reported by current smokers who have stopped smoking at least once in the past 12 months. The cessation tools used by those reporting trying to quit smoking at least once in the past 12 months are presented in Figure 1. Of current smokers, 50.4% (37.3%, 63.5%) reported that they tried at least once in the past 12 months to quit smoking. As can be seen in the chart, E-cigarettes were used as a cessation tool the last quit attempt by 55.6% of current smokers attempting to quit. E-cigarettes entered the market with wide-spread advertisement in 2012 and has shown an increase in reported use as a cessation aid even though not approved by the Food and Drug Administration (FDA) as a smoking cessation aid. The FDA has not approved e-cigarettes as a cessation aid because of the lack of scientific evidence and with 250 e-cigarette types on the market, approval is a moving target for the FDA<sup>1,2</sup>. Research in small studies have suggested that e-cigarettes are a promising smoking-cessation aid however continued research needs to be done on the potential adverse exposures that are still unknown<sup>3,4</sup>.

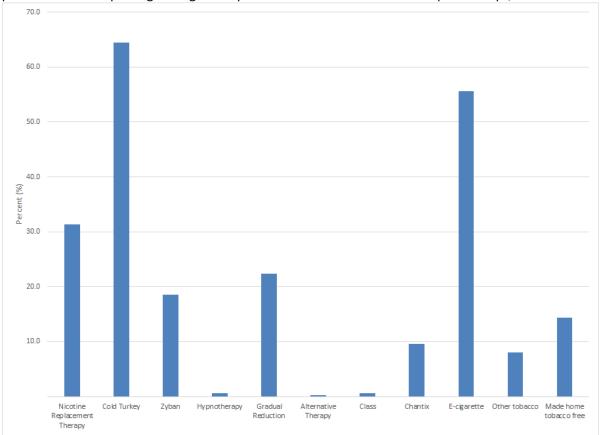


Figure 1. Percent of Colorado adults who are current smokers and stopped smoking at least once in the past 12 months reporting having used specific cessation tools in the last quit attempt, 2015

# Insurance Cessation Benefit Awareness, Communication, Use, and Perceived Utility/Gaps in Colorado Adults, 2015

This section provides information about Colorado adults who reported smoking every day, some days, or at least once in the past year and how aware they are of cessation resources provided by their current health insurance plan. The distribution of health insurance plans of current smokers is presented in Figure 2. Only 37.8% (22.6%, 55.1%) of adult smokers reported that in the past 12 months, their insurance plan informed them about health services and medicines that can help people quit smoking with 70.3% (31.5%, 100%) of them reporting getting that information via mail and another way 95.5% (90.0%, 100%) other than text or phone. Of the adults who were informed by their health insurance plan about services and medicines, those classified as low SES reported receiving information significantly less than non-low SES (19.8% vs. 72.4%).

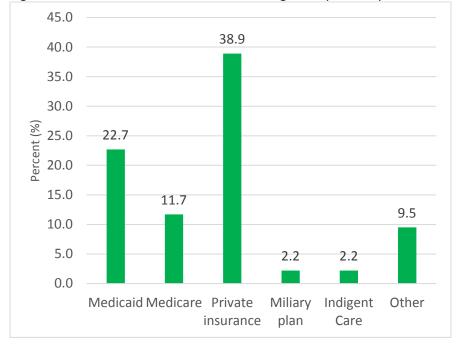


Figure 2. The distribution of insurance coverage as reported by Colorado adult smokers, 2015

When asked about what smoking cessation services their health insurance covered, to the best of their knowledge, the respondents mostly regarded the prescription medications as the focus of insurance companies. Figure 3 presents the distribution of payers for the respondents' cessation service on their last quit attempt. As can be seen, majority do not use their insurance company, with most paying for it themselves or not using a cessation service (Figure 4).

Figure 3. The distribution of cessation services reported to be covered by insurance plans of Colorado smoking adults, 2015

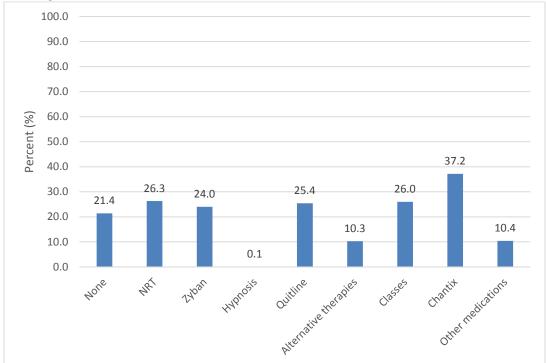
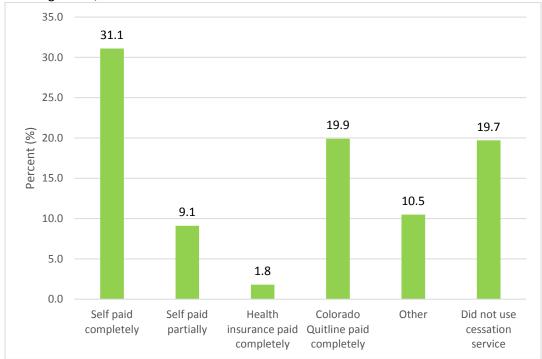


Figure 4. The distribution of who paid for cessation services on the last quit attempt in Colorado smoking adults, 2015





### **Tobacco Smoke Exposure in Multiple-Unit Housing in Colorado, 2015**

In 2015, 99.4% of Colorado adults reported residing in a private residence of which 17.4% (8.0%, 26.8%) reported living in a residence attached to another residence (Figure 5). Most Colorado adults (69.8%) living in multi-unit housing reported that they rent their residence which were mostly managed by a property management company (41.8%) or an individual landlord (37.1%)

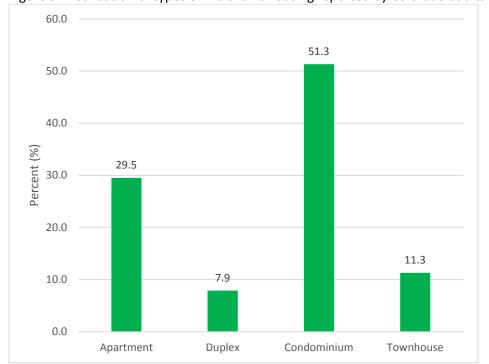


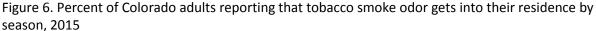
Figure 5. Distribution of types of multi-unit housing reported by Colorado adults living in MUH, 2015

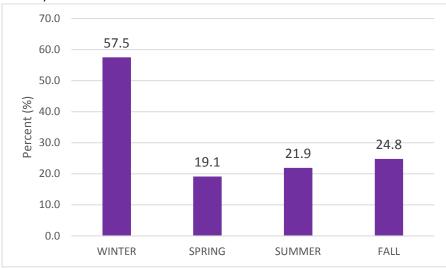
Secondhand smoke tobacco smoke is a significant health hazard and can negatively impact health and quality of life. The U.S. Surgeon General states that secondhand smoke "... has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer." There is no risk free level of exposure to tobacco smoke. The health effects are especially serious for vulnerable populations such as the elderly. Research has shown that there is public concern for exposure to secondhand smoking in multi-unit housing (MUH). In a national survey in 2015, only 29% of MUH residents lived in a building with smoke-free policies and 79% have voluntary smoke free policies in their individual residence. Of those with voluntary policies in individual residences, 44% reported that secondhand smoke from other residences enters their residence. Support for smoke free residential buildings among all adults nationally was 56%. We assessed MUH policies and secondhand smoke exposure in Colorado adults residing in MUH buildings.

In relation to smoking policies in multi-unit housing, there appears to be significant confusion among Coloradans who live in MUH. In adults living in MUH, 23.6% (4.1%, 43.2%) reported that smoking is allowed anywhere at any time. Of the 68.4% that reported there are rules on smoking on the property imposed by their landlord, 56.3% reported no restrictions on smoking inside the residential unit and 41.6% reported there are no specific rules regarding smoking in common areas. Of the respondents who live in MUH with rules prohibiting smoking inside the building, 91.4% agree with the policy imposed

by the landlord, however in respondents who live in MUH with no smoking rules or restrictions only 32.8% agree with the landlord imposed policy.

Despite the known health hazards to exposure 25.9% report they have experienced some exposures in their apartment when tobacco smoke enter their unit from somewhere else. For those reporting having ever in the past 12 months had tobacco smoke enter their room winter has the highest occurrence when residents tend to stay inside to avoid the cold (Figure 6.) Even in those reporting tobacco odor entering their residence, 97.3% (93.2%, 100.0%) reported that they would not move because of the odor that enters their residence.





When asked about all the ways they believed tobacco smoke gets into their residence, respondents felt that entering through windows from the outside and through the shared heating and ventilation system were the predominant modes. When asked which they felt was the most likely means, 36.0% responded the heating and ventilation system.

Table 1. Perceived means for how tobacco smoke enters residential units in adults who live in multi-unit housing, 2015

Means of tobacco smoke/odor entry	Percent
From outside of the building through windows/doors	39.5%
From inside the building through my front door	9.6%
Through air leaks from other residences	10.4%
Through bathroom and/or kitchen exhaust fans	3.6%
Through shared heating/air conditioning systems	64.2%
From individual smokers coming into residence (on clothes)	24.3%
Other	3.5%

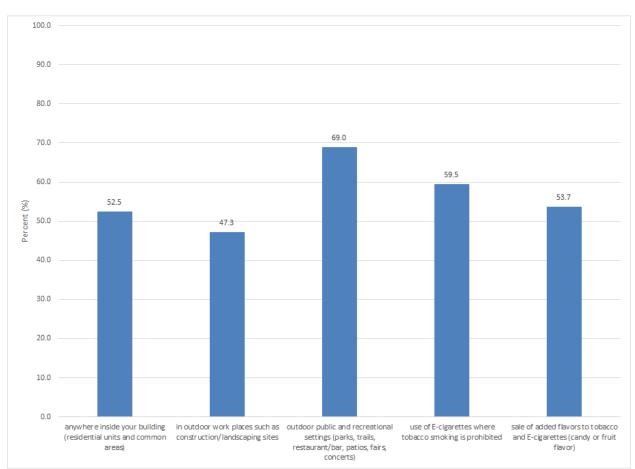
In relation to tobacco exposure in multi-unit housing, none of the adult respondents reported that they had been contacted by their building management, owner, or association as a result of tobacco smoke in or coming from their residence.



### Attitudes Towards Smoking Restriction Policies in all Colorado Adults, 2015

All adults were asked about their attitudes towards smoking policies in areas where the general public can be exposed (Figure 7) and results suggest that support for policy is not as high as would be expected given the strong agreement, 93.6%, that nonsmokers who breathe in secondhand smoke take in nicotine and other toxic chemicals just like smokers do. Of interest is that the strongest favor for policy was towards e-cigarette use in areas where the general public can be exposed 59.5%. There was little difference in attitudes towards policy by socio-demographic factors except that females were significantly more likely to favor policy that prohibits smoking in outdoor public and recreational areas such as parks, trails, pedestrian areas, restaurant/bar, concerts, fairs and farmer's markets than males (81.1% vs. 56.4%).

Figure 7. Percent of adults in 2015 responding that they would favor a policy that prohibits smoking.......





Current adult smokers were asked about certain smoking cessation services to support individuals trying to quit smoking. Adult smokers were asked to rank how helpful they feel any of the following services would be for them; a) personal guides, b) universal health insurance coverage, and c) health care provider support network.

When asked about personal guides, 31.8% felt that they would be helpful for them as an individual. Of those who said they would find this helpful, they were further asked about the level of their interest in these service components (Table 2).

Table 2. Among Colorado adult smokers who would find a personal guide helpful, the engagement level they would like, 2015

Willingness to meet guide in/at	% (LCL, UCL)
Building where I live	52.8% (27.7%, 77.9%)
Small business in neighborhood	67.7% (44.0%, 91.4%)
Workplace	20.9% (0%, 42.1%)
Job training program	40.6% (11.9%, 69.3%)
Child's school/day care center	14.7% (0%, 35.4%)
Doctor's office	76.1% (57.8%, 94.5%)
Place of worship	16.6% (3.0%, 30.1%)
In another business (supermarket/department store/pharmacy)	52.3% (25.2%, 79.3%)

Adult smokers were asked which cessation method they would want to use if their health insurance covered the cost for the service and nicotine replacement therapy was more favored (57.1%) than prescription medications (45.6%), and other methods (20.8%). When asked about whether they would talk with a health care provider or trained person in quitting smoking, 42.2% responded that they would talk to the person about quitting smoking.

### Limitations

This report provides findings related to important tobacco related public health initiatives and policies, however the extent of the interpretation of the findings is limited due to sample selection and sample size. First, the sample selected for this survey were derived from CAPS-SRR which is a registry of adults who consented to be re-contacted for surveys led by CEPEG. The TFUS sample is a convenience sample and therefore could bias the estimates provided. Second, the survey is limited by the number of people in CAPS-SRR who live in multi-unit housing which led to a small number of respondents for the MUH section of the survey. Even with these limitations, the report does address important tobacco related public health areas which can be influenced by public health planning and policies.



#### References

- 1. Chen, IL (2013) FDA summary of adverse events on electronic cigarettes. *Nicotine Tob Res* 15:615-616.
- 2. Kaufman AR, LJ Finney Rutten, M Parascandola, KD Blake, EM Augustson (2015) Food and Drug Administration tobacco regulation and product judgments. *Am J Prev Med* 48(4): 445-451.
- 3. Siegel, MB, KL Tanwar, KS Wood (2011) Electronic cigarettes as a smoking-cessation tool. *Amer. J. Prev Med* 40(4): 472-475.
- 4. Foulds, J, S Veldheer, A Berg (2011) Electronic cigarettes (e-cigs): views of aficionados and clinical/public health perspectives. *Int J of Clin Prac* 65(10):1037-1042.
- 5. Licht, AS, BA King, MJ Travers, C Rivard, AJ Hyland (2015) Acceptance of smoke-free policies among US multiunit housing residents. *Amer J Public Hlth* 102(10):1868-1871