

February 2023

### **Updated Position:**

The American Heart Association maintains that if health plans use tobacco surcharges, then consumer protections must be integrated that prevent these surcharges from becoming overly coercive or reduce access to equitable, affordable, health care by making health insurance too costly. There is some evidence that surcharges may increase rates of tobacco cessation, however research indicates their implementation reduces equitable access to affordable, quality health care, especially across age, geography, race/ethnicity and income. There is no evidence available on the impact of tobacco surcharges on the overall cost of insurance for all subscribers. For these reasons, the American Heart Association does not proactively support tobacco surcharges and will advocate that if they are implemented, consumer protections<sup>3</sup> (see **Table 1**) must be in place that include access to free, comprehensive tobacco cessation services. A person who uses tobacco should be able to avoid the surcharge by participating in a tobacco cessation program or fulfilling some other reasonable alternative standard during the 12-month period of benefits coverage.

#### **Table 1.** Appropriate Consumer Protections<sup>3</sup>

- Access to comprehensive cessation services with no co-pay.
- Surcharges should be waived if an employee participates in a tobacco cessation program or fulfills some other reasonable alternative standard during the 12-month period of benefits coverage.
- A reasonable alternative standard (or waiver of the otherwise applicable standard) must be made
  available to any individual for whom, during that period, it is unreasonably difficult due to a medical
  condition to satisfy the otherwise applicable standard (or for whom it is medically inadvisable to
  attempt to satisfy the otherwise applicable standard.
- Surcharges should not reduce access to equitable, affordable, health care coverage by making health insurance too costly.

#### Background

In a 2012 joint consensus statement with several other organizations, the American Heart Association provided guidance for outcomes-based incentives within worksite wellness programs associated with employer-sponsored health plans that emphasized appropriate consumer protections to improve health, assured insurance affordability, and recommended implementation of evidence-based approaches to program design.<sup>1</sup> At the time, this statement acknowledged the evidence-base for the efficacy of incentive/penalty design was insufficient. Accordingly, our joint statement stressed that programs and

policies initiating incentives or penalties should be employed in a way that does not diminish access to affordable health care.<sup>1</sup> This position is important because behavior change and lifestyle modification, such as weight loss and tobacco cessation, require significant commitment and support and employees need access to their health care to address preventive services, treatment and disease management. Consumer protections in the context of long term behavior change prevent these programs and policies from becoming overly financially punitive or coercive.<sup>2</sup>

The Patient Protection and Affordable Care Act (ACA) was signed into law in 2010. The primary objective of the ACA was to expand health insurance coverage to nearly everyone in the U.S. through subsidized public marketplace coverage, Medicaid expansion, and insurance mandates (essentially eliminated in 2019). Implemented in 2014, the ACA insurance expansions were able to reduce the uninsured rate to 7.9 percent by 2017, which has remained relatively stable since. Despite this, there remains significant disparity by race, with the Hispanic population having the highest uninsured rate. Further, there are significantly higher rates of uninsured adults (ages 19-64) in the 12 non-Medicaid expansion states (Alabama, Florida, Georgia, Kansas, Mississippi, North Carolina, South Carolina, South Dakota, Tennessee, Texas, Wisconsin, and Wyoming) than those states that did expand Medicaid (including Washington, DC). A further source of disparity may be the addition of a tobacco surcharge for tobacco users, which may limit affordable health care coverage and may discourage individuals from enrolling in health insurance.

For employer-sponsored insurance, the ACA allows the use of up to 50 percent of total premiums for outcomes-based incentives or surcharges. Employers have moved toward the use of surcharges because they are perceived as more effective, they do not require employers to pay anything extra, and (based on employee focus groups) are considered more equitable.<sup>8</sup> The surcharge is perceived to be more effective due to the concept of loss aversion, where a dollar lost has a stronger impact on people than a dollar gained. If this is the case, then the data indicating significant smoking cessation from incentive programs (dollar earned)<sup>9-11</sup> would indicate the surcharge effectiveness at least equivalent. Further, the surcharge approach is administratively cheaper to initiate and easier to individually apply.<sup>8</sup> These assumptions are made in the face of very little data on outcomes of surcharges.

A tobacco surcharge is a variation in insurance premiums based on an individual's tobacco use. The intention of tobacco surcharges is to incentivize tobacco use cessation, as well as to offset the higher healthcare costs attributed to smoking. The ACA required health insurance plans offered in the health insurance exchanges to cover screening for tobacco use, as well as cover cessation services. The act also allowed for tobacco surcharges of up to 50 percent more in premiums, though several states do not allow surcharges or capped the surcharge on smokers to a lower level. For individuals meeting income levels to receive insurance premium subsidies, these subsidies do not cover the tobacco surcharge. Importantly, where surcharges are allowed, the ACA mandates that if an individual enrolls in a smoking cessation program, then the surcharge is to be removed. For those individuals in Medicaid expansion states that qualify for Medicaid coverage, there is no smoking surcharge and smoking cessation costs are covered.

One study found that risky health behaviors, including smoking, were not changed by ACA insurance coverage expansion during the first few years.<sup>4</sup> However, this study found statistically significant improvements in smoking and excessive drinking in 2017 and 2018.<sup>4</sup> It is not understood whether these improvements were due to more states taking up the Medicaid expansion (25 in January 2014 to 32 at the end of 2018)<sup>4</sup>, increased awareness of the smoking cessation benefit, or some other factors.

**Purpose:** To conduct a review of the latest evidence base to determine if there was a need to update the American Heart Association's previous position statement. There were two primary questions to be answered in this review:

- 1) What is the impact of health insurance plans with tobacco use surcharges on the rate of cessation in current tobacco users compared to health insurance plans without tobacco use surcharges?
- 2) What is the impact health insurance plans with tobacco use surcharges on the disparity of access and affordability of health insurance for current tobacco users compared to health insurance plans without tobacco use surcharges?

For this update the American Heart Association's policy research team conducted a review of the recent literature surrounding the benefits and consequences of tobacco use surcharges in the individual and small-group insurance market. The focus was to explore the how these surcharges affected tobacco users' cessation journey, while also exploring the consequences of the surcharge on access to and affordability of health insurance.

Methods: The review of the literature was limited to the last 10 years to answer the two key questions. Medline (<a href="www.pubmed.gov">www.pubmed.gov</a>), GoogleScholar (<a href="www.google.com">www.google.com</a>) and Scopus (<a href="www.scopus.com">www.scopus.com</a>) were searched on October 28, 2022 (Medline and Scopus) and November 16, 2022 (Medline and GoogleScholar). The second search of Medline and the GoogleScholar search did not yield any unique articles, so Scopus was not searched a second time. Medical Subject Headings (MeSH) terms and keywords used included: tobacco products, tobacco, smoking, tobacco use, tobacco use/epidemiology, tobacco surcharge, surcharge, health benefit plans, employee, insurance coverage, insurance, health, federal health insurance plans, health insurance exchanges, tobacco use cessation, cessation, access to care, access to health care, disparities, health care disparities.

The inclusion criteria for articles were research conducted in the US market, primary or secondary outcomes related to tobacco surcharges, written in the English language, published or published ahead-of-print between January 2012 and November 2022, and original research or meta-analysis. As far as exclusion criteria, articles not meeting the inclusion criteria, as well as any reviews, policy statements, or guidelines.

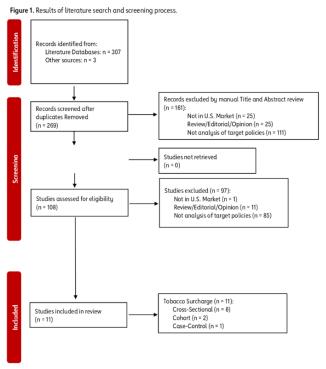
All titles and abstracts were reviewed for inclusion and exclusion criteria. Once the title and abstract review, the full text articles were obtained for the remaining papers. The full text was then reviewed for inclusion and exclusion criteria. The remaining papers after the full text review were included in the review

and classified into topic areas based on the two primary questions. Each paper was then evaluated for quality and given a grade based on standardized grading systems: the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)<sup>12, 13</sup> for cross-sectional, cohort, and case-control studies; and the United States Public Safety Task Force (USPSTF) Quality Rating Criteria for randomized control trials.<sup>14</sup>

#### **Results:**

Figure 1 outlines the results of the search and the process used to derive the papers used to complete the analysis. There were 11 papers that met the inclusion criteria with no exclusions. Each of the final 11 articles were evaluated for quality and given a grade based on the STROBE quality checklist. None of the articles were randomized control trials. All the papers were evaluated and graded as "Fair" or "Good" quality (See Table 2 and Table 3 for results summary and quality rating grade for each study). None of the papers were graded as "Excellent" or "Poor".

The results of the literature revealed a paucity of papers related to the effectiveness of cessation rates related to tobacco surcharges. One study published in 2022 evaluating the impact of the expansion of health insurance coverage resulting



Adapted From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

from the ACA on risky health behaviors, including smoking, found there were no significant changes between 2014 and 2016.<sup>4</sup> However, there were significant improvements (reductions) in smoking and excessive drinking in 2017 and 2018 (the last year included in the study).<sup>4</sup> Unfortunately, this study looked at the cigarette smoking rates year-to-year and did not consider the impact of surcharges separately and (although insightful) was not used in the analysis. There were three papers evaluating the effectiveness of tobacco surcharges on increasing smoking cessation attempts (see **Table 2**).<sup>15-17</sup> Most of the research highlighted the inequity of surcharges for current smokers. There were ten papers evaluating the impact of tobacco surcharges on the disparity of access and affordability of health insurance and health care (see **Table 3**).<sup>6, 15, 18-24</sup>

# Key Guidance:

The ACA provides protection from higher premiums and other charges for insurance related to medical history or gender, but insurers can adjust premiums for age, tobacco use, and geography.<sup>25</sup> The smoking surcharge was included, in part, to recognize the individual responsibility for ongoing tobacco use. The

ACA allows premium surcharges of up to 50 percent higher than the premiums of non-tobacco users. A surcharge at this level can make insurance unaffordable for many people and their families. Most states implemented strategies intended to minimize disruption in the health insurance market and premium shock – particularly for those who were previously uninsured.<sup>25</sup> Fewer states, however, strengthened consumer protections around surcharges.<sup>25</sup> Several states elected not to initiate the surcharge and others limited the surcharge to something less than the 50 percent maximum.<sup>18, 23</sup>

I. There remains very little published data on the effectiveness of tobacco surcharges. Studies generally suggest that, with appropriate consumer protections, tobacco use surcharges may be effective in increasing rates of cessation.

One of the three studies analyzed found tobacco surcharges to be effective at increasing smoking cessation rates.<sup>17</sup> The other two studies found that there were no significant differences in cessation rates between states<sup>15</sup> or small employers<sup>16</sup> that included surcharges versus those that did not. The study by Friedman et al., found that areas with low surcharges (non-zero to <10 percent of non-smoker premiums) were associated with significantly lower rates of cessation than areas with no surcharge.<sup>15</sup> It is worth mentioning that in states that did not allow a surcharge, there was a non-significant rise in cessation between 2013 and 2014.<sup>15</sup>

Though initiated prior to the passing and implementation of the ACA, in 2005 the Georgia State Health Benefit Plan began charging a tobacco surcharge of \$40 per month that increased to \$60 in 2010 and \$80 in 2011.<sup>17</sup> In 2005, the surcharge was equivalent to about 27 percent of the non-smoker premium (above the threshold found by Friedman et al.), but there was no indication premiums increased at the same rate as the surcharge. The analysis found that 45 percent of enrollees that were smokers in 2005 were identified as tobacco-free (and no longer paying the surcharge) by 2011; suggesting the cessation rates were more than three times the national average. However, the true effectiveness of the program is limited due to participants self-reporting current smoking status with no additional clinical verification.<sup>17</sup> In the study of the effectiveness of surcharges in the first year of ACA implementation by Friedman et al., it was noted that areas with surcharges of 10 percent or higher had a non-significant rise in cessation rates between 2013 and 2014, and the rates were similar to cessation rates of non-surcharge areas; suggesting that higher surcharges may incentivize cessation more than lower surcharges.<sup>15</sup>

In small companies (< 50 employees) that provided private insurance, overall tobacco use (defined as use of cigarettes or smokeless tobacco) declined significantly from 2012 to 2018 (18.3 percent to 13.3 percent, respectively). <sup>16</sup> Under the ACA, regardless of whether a state prohibited tobacco surcharges in the individual market, companies can provide private insurance that includes a surcharge. If a tobacco surcharge is used, then the company must offer access to a tobacco cessation program at no cost to the employee. In 2016, 16.2 percent of small employers used tobacco surcharges and in 2017 this increased to 17.8 percent. Similarly, reported tobacco use decreased from about 16 percent in 2016 to about 15 percent in 2017. <sup>16</sup> These data might suggest surcharges had a positive impact of tobacco cessation rates. However,

in 2018 only 4.1 percent of employers charged a tobacco surcharge, yet tobacco use continued to decline. From 2016 and 2017, of all employers that used surcharges, between 48 percent and 52 percent of these employers were not compliant with offering tobacco cessation programs. Furthermore, in 2018 when the rate of surcharge use dropped dramatically, there were no changes in the number of cessation programs offered. This may suggest that cessation programs might have more benefit regardless of the use of tobacco surcharges. On the other hand, the improved compliance by employers by ending their tobacco surcharge did nothing to help employees quit smoking. This finding reinforces that if surcharges are used at any level, important consumer protections, including access to comprehensive cessation services with no co-pay must be implemented.

Table 2. Summary and Quality Grade of the Studies Related to the Effectiveness of Tobacco Surcharges

Authors	Results	STROBE Grade
Friedman AS, et al 2016	Compared to non-surcharge states, medium and high surcharge areas had no difference in smoking cessation rates, where smokers in low surcharge areas demonstrated less smoking cessation.	GOOD
Bains J, Et al., 2020	From 2012 to 2018, for small employers the overall tobacco use declined from 18.3 percent to 13.3 percent. For 2016 and 2017, between 16.2 percent and 17.8 percent of small employers used tobacco surcharges, with between 48 percent and 52 percent of these not offering tobacco cessation. By 2018, small employers using surcharges dropped to 4.1 percent with no change in the number of cessation programs offered.	FAIR
Liber AC et al, 2014	45 percent of enrollees who paid a tobacco surcharge in the first year had certified themselves as tobacco-free the last year of the analysis; 3 times the national rate.	GOOD

II. The impact of health insurance plans with tobacco use surcharges appears to be primarily related to disparate affordability between smokers and non-smokers, as well as decreased affordability with aging and in rural areas. Non-compliance with all parts of ACA have impacted access to smoking cessation programs in the small-group market, though compliance seems to be improving.

The research is clear that tobacco surcharges lower the rate of health insurance coverage. <sup>15, 18, 24</sup> During the first year of the ACA, tobacco surcharges of 10 percent or more negatively affected the rate of insurance coverage by smokers. <sup>15</sup> Tobacco users in surcharge states have lower rates of health insurance coverage. <sup>18</sup> There is good evidence to suggest that the rate of insurance coverage for smokers is associated with the size of the surcharge. In the first year of implementation, in areas where the surcharge was low (non-zero to <10 percent) there was a non-significant decrease in coverage compared to non-smokers, but there was an almost 12 percent decrease in health insurance rates in high ( $\geq$ 30 percent) surcharge areas. <sup>15</sup> This trend appears to have persisted through at least 2019 with a finding that for every 10 percentage-point increase in surcharge there is a 3.4 percentage-point decrease in health insurance

coverage for smokers compared to non-smokers.<sup>18</sup> Similarly, within-smoker analysis of 2014-2019 data found as much as 10.6 percent reduction in insurance enrollment for every 10 percent increase in surcharge.<sup>24</sup> In a survey, about 25 percent of current smokers reported paying for surcharges or paying higher premiums as a major reason for not enrolling in health insurance.<sup>18</sup>

The affordability of health insurance has been problematic for smokers since the inception of the ACA marketplace. Importantly, in every state that allows tobacco surcharges there are plans offered with lower surcharges than the state limit, 41 percent of these states offer at least one plan with no surcharge (though most of these have higher premiums than the lowest priced plans that include a surcharge), and almost all of the plans within each state have surcharges below the state limit.<sup>23</sup> In the small-group market there has been a steady decline in the use of tobacco surcharges since 2016. 16 However, studies have found that tobacco users have been progressively paying more for plan premiums than non-users. 6, <sup>18</sup> Specifically, in states that allow tobacco surcharge, the state-wide averages ranged from 0.0-29.6 percent in 2015, which increased to 7.0-32.3 percent in 2019. Every year, in order to purchase either a benchmark plan or the lowest cost plan, tobacco users required a higher median income compared to non-tobacco users. 6 As tobacco users tend to have lower income and lower rates of employment, this trend places an even greater financial burden on smokers, even after subsidization. <sup>19</sup> This is potentially further exacerbated in states that have not taken up Medicaid expansion, where 37 percent of those who would qualify for Medicaid under expansion rules report current smoking. 21 Affordable health insurance, as defined by the ACA, should cost no more than 8 percent of the household income, but because of higher premiums and surcharges almost 29 percent of adult smokers would spend more than 10 percent of their family income for Marketplace plans (in states without Medicaid expansion) versus about 9 percent with Medicaid expansion.<sup>21</sup> However, in the small group marketplace, 19 percent of higher-paying employers used tobacco surcharges compared to just over 7 percent of lower-paying employers.<sup>20</sup> Additionally, there is evidence that many tobacco users have lower health literacy and health insurance literacy (understanding how to match health insurance costs and coverage with current health care needs and utilization) than non-tobacco users, which may put them at risk of purchasing lower-cost coverage that does not meet their needs or to opt-out of purchasing any health insurance.<sup>22</sup>

Age is another factor that can influence health insurance premiums, which may cause older adult smokers to have a greater financial burden when purchasing health insurance. In fact, older individuals already pay a larger premium for the same plans as younger individuals, and therefore older tobacco users pay an even higher tobacco surcharge as a result; even after the subsidy.<sup>6, 19</sup> It was estimated that a 64 year-old smoker with an income 200 percent of the federal poverty level would pay seven times higher after-subsidy premiums than a non-smoker.<sup>6</sup> Further, in a sample of 36 states (including the District of Columbia), in 13 of these states 45 year-old tobacco users with incomes of 300 percent of the federal poverty level lacked affordable coverage, versus only in two states for 45 year-old non-users.<sup>23</sup> Across regions, unaffordable coverage generally increased with age up to 65 when Medicare coverage can begin.<sup>6</sup>

One study provided some insight on the impact of tobacco surcharges across urban and rural areas.<sup>24</sup> In the analysis, people living in rural counties made up 14 percent of the total health insurance enrollment and 23 percent of tobacco users. enrolling for health insurance. Tobacco surcharges had negative impacts on health insurance enrollment of tobacco users living in urban and rural areas. In urban areas, for every 10 percent increase in surcharge there was a 2.8 percent decrease in enrollment for tobacco users (compared to non-users). In rural areas for every 10 percentage-point increase in surcharge there was a 7.8 percent decrease in enrollment for tobacco users, which was a significantly higher rate than in urban areas

As already mentioned, in the small-group marketplace, if a tobacco surcharge is implemented, consumer protections must be included, like those implemented in the ACA for worksite wellness programs associated with employer-sponsored health insurance. If a covered tobacco user enrolls in the smoking cessation program the surcharge should not be applied during that 12-month benefit period. Comprehensive tobacco cessation services should be offered in all health care plans with no co-pay. In 2017, about 16 percent of small employers ( $\leq$ 50 employees) utilized tobacco surcharges.<sup>20</sup> In 2016 and 2017, between 48 percent and 52 percent of these employers were not compliant with offering tobacco cessation programs.<sup>16</sup> Beginning around mid-year 2017, with greater government scrutiny of compliance of the plans in the small-group marketplace, the use of tobacco surcharges by small employers decreased to 4 percent.<sup>16</sup> Importantly, employers in states that prohibited surcharges in the individual marketplace were almost two times as likely to offer tobacco cessation programs and by 2018 were six times less likely to apply surcharges.<sup>16</sup> Unfortunately, there was no change in the number of tobacco cessation programs offered, and there were no data to indicate whether premiums were increased for all employees due to the removal of the surcharge for tobacco users. Also, there were no data to indicate whether the decreased use of tobacco surcharges led to changes in health insurance uptake by tobacco users.

**Table 3. S**ummary and Quality Grade of the Studies Related to the Impact of Tobacco Surcharges on the Affordability and Access to Health Care and Health Insurance

Authors	Results	STROBE Grade
Manz KC, et al., 2020	There are more areas in the U.S. where tobacco users lack affordable care compared to non-users, which increases with age.	FAIR
Friedman AS, et al., 2016	Compared to non-surcharge states, medium and high surcharge areas had lower rates of insurance enrollment by smokers. Low surcharge areas were not significantly different that non-surcharge states.	GOOD
Bains J, et al., 2020	Small employers in states that prohibited surcharges were twice as likely to offer smoking cessation programs for employees than employers in states that allowed the surcharges, and more than six times less likely to utilize surcharges.	FAIR

Kaplan CM & Kaplan EK, 2020	Tobacco surcharge reduced insurance enrollment among smokers by 4.0 percentage points. Smokers without employer or public insurance were 9.0 percentage points less likely to enroll in a nongroup plan if subjected to a tobacco surcharge. In states with surcharges, enrollment among smokers was 3.4 percentage points lower for every 10 percentage point increase in the tobacco surcharge.	GOOD
Liber AC, et al., 2015	2015 tobacco surcharges showed more plans implementing tobacco surcharges that increase with age, which raises concern that older tobacco users will find post-subsidy health insurance premiums difficult to afford.	FAIR
Pesko MF, et al., 2018	In 2016, 47 percent of employers using tobacco surcharges failed to offer tobacco cessation counseling.	GOOD
Hill SC, 2015	Compared with Marketplace coverage, Medicaid would more than halve average annual out-of-pocket spending. Larger reductions would be seen for families with smokers, who under Medicaid would no longer be subject to Marketplace tobacco user surcharges.	GOOD
Braun RT, et al., 2017	Average health insurance literacy across all participants was 2.0 out of a total possible score of 4.0. Current tobacco users had significantly lower health insurance literacy compared to non-users. Participants who were less educated, African American, and less numerate reported more difficulty understanding health insurance.	GOOD
Kaplan CM, et al., 2014	Even with lower-than-allowed surcharges, tobacco users lacked affordable coverage-defined as access to at least one plan with premiums of < 8 percent of income after subsidies-in more states than did nonusers	GOOD
Dorilas E, et al., 2022	2014-2019, tobacco surcharge was associated with lower total enrollment, reduced share of total enrollees who reported any tobacco use. Tobacco surcharges have a significantly larger effect on tobacco users' share of enrollment in rural areas than in urban areas, which may in turn contribute to urban-rural health disparities.	GOOD

# Conclusion

The position of the American Heart Association has been that if health plans include tobacco surcharges, then consumer protections must be integrated that prevent these surcharges from becoming overly

coercive or reduce access to equitable, affordable, health care.<sup>1, 2</sup> Based on this review, the American Heart Association's position remains the same. The evidence for efficacy of inducements is still limited although there is some evidence that they may increase tobacco cessation.<sup>9-11, 17</sup> However, the use of tobacco surcharge without consumer protections reduces equitable access to affordable, quality health insurance across age, income, geography and race/ethnicity.

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