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## Association of the Affordable Care Act with Smoking and Tobacco Treatment Utilization among Adults Newly Enrolled in Healthcare

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### Abstract

**Objectives**—To examine rates of smoking and tobacco treatment utilization by insurance coverage status (Medicaid, commercial, exchange) among newly enrolled patients in the post ACA era.

**Methods**—We examined new members who enrolled in Kaiser Permanente Northern California (KPNC) through Medicaid, the California exchange, or non-exchange commercial plans (N=122,298) in the first six months of 2014 following ACA implementation. We compared these groups on smoking prevalence and tested whether smokers in each group differed on sociodemographic characteristics and in their utilization of tobacco treatment (pharmacotherapy and counseling) in 2014.

**Results**—Smoking prevalence was higher among Medicaid (22%) than exchange (13%) or commercial (12%) patients ( $p<.0001$ ). Controlling for key sociodemographic and clinical characteristics, Medicaid (OR=1.49, 95% CI=1.29–1.73) smokers had greater odds of tobacco treatment use than commercial smokers. Other groups at risk for underuse included men, younger patients, Asians and Latinos.

**Conclusions**—In this cohort of newly enrolled patients after ACA implementation, Medicaid patients were more likely to be smokers compared to exchange and commercial patients, but they were also more likely to use tobacco treatment. Low tobacco treatment use among exchange and commercial plan smokers, as well as younger men, Asians and Latinos poses a significant obstacle to improving public health and additional targeted outreach strategies may be need to engage these patients with available health services.

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## Keywords

Smoking; tobacco treatment; healthcare reform; Affordable Care Act; integrated healthcare

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Smoking remains the leading cause of preventable mortality in the United States.(1) In California, nearly 4 million people smoke, resulting in over \$18 billion annually in direct health care costs and indirect costs due to smoking-related premature death, illness, and lost productivity.(2) Although most smokers want to quit smoking,(3) effective tobacco treatments are underused due to a variety of barriers. These challenges apply particularly to medically underserved and low-income populations, who typically smoke at disproportionately high rates, lack access to appropriate treatment, and cannot afford cessation medications.(3)

The 2010 Patient Protection and Affordable Care Act (ACA),(4) had major implications for increasing access to tobacco treatment, by expanding benefits for underserved and low-income smokers. Specifically, the ACA-mandated comprehensive coverage for tobacco treatment, including counseling and U.S. Food and Drug Administration-approved medications,(5) was implemented for most private health plans and newly eligible Medicaid beneficiaries in California. ACA implementation in California in January 2014,(5–8) including Medicaid expansion, exchange coverage, and comprehensive coverage for tobacco treatments without cost-sharing or prior authorization, has been associated with the reduction in uninsured population from 22% to 11%(6) and with bringing high-priority populations for tobacco control into the healthcare system,(6, 9) including the 1.4 million individuals who gained private insurance through the California insurance exchange and 2.4 million who enrolled in Medicaid in 2014.(6, 8) Populations with the greatest gains in healthcare coverage through the ACA in California were adults aged 19–34, men, and low-income enrollees,(6) —the same subgroups disproportionately represented among California’s smokers.(3, 10, 11)

The ACA has the potential to increase access to tobacco treatment for previously medically underserved subgroups of smokers with possible pent up demand for such services. For example, previous studies have demonstrated that Medicaid recipients, while more likely to smoke, are less likely to use tobacco treatment.(12–14) However, it is not clear whether expansion of coverage is sufficient to improve utilization of these services. In particular, Medicaid recipients and other vulnerable subgroups may face unique barriers to tobacco treatment use not related to coverage, such as difficulty navigating the healthcare system, lack of knowledge of benefits,(15) or competing medical and psychiatric healthcare needs.

In this study, we examine risk factors for smoking among newly enrolled patients following ACA implementation and the role of insurance status (i.e., Medicaid, exchange, commercial coverage) as a predictor of tobacco treatment use (medication, counseling) among smokers post-ACA. To our knowledge, the current study is one of the first to use an extensive electronic health record (EHR) with population-based smoking screening to characterize smokers post-ACA in a multi-specialty health care system.

## METHODS

### Setting

KPNC is a nonprofit, multi-specialty healthcare delivery system providing comprehensive health services to more than 3.9 million members(16) and covering >40% of the region's commercially insured population.(17) KPNC has 24 hospitals, 47 medical centers, and >7,000 physicians who practice exclusively with KPNC. KPNC provides integrated medical and behavioral health treatment and is a recognized leader in establishing tobacco quality of care standards.(18) The membership is largely employed, racially and socio-economically diverse, and highly representative of the population from its geographic area.(19) The study protocol was approved by the KPNC Institutional Review Board.

**Study Sample**—The sample included 122,298 patients aged 18 and older who were newly enrolled in KPNC in the first 6 months of 2014 through Medicaid (including Medicaid expansion), the California exchange, or commercial plans purchased by small or large employers or by individuals outside of the exchange. Because we anticipated that differences in utilization by coverage type (e.g., due to differences in pent up demand) would be greatest in the early post-enrollment period, we limited sample enrollment to the first six months of 2014. Patients who had been enrolled in KPNC the prior six months, and those with Medicare coverage, unknown coverage, missing birth date, missing smoking status, enrollment for <60% of the first six membership months and enrollment gaps of greater than 45 days in the first six months of membership were excluded. Exclusion criteria were derived from the EHR. Of the 122,298 eligible patients, 15,936 were documented in the EHR as current smokers during the first six months of enrollment. Among these, 1,720 enrolled through Medicaid plans, 4,512 enrolled through the California exchange, and 9,704 through commercial plans (Appendix 1).

### Measures

**Smoking Status**—New members who had been to at least one outpatient visit in the first 6 months of enrollment were assessed for smoking status through standardized screening at KPNC Medicine appointments by medical assistants. Our interest was in current smokers. Ninety percent of patients with at least one outpatient visit in the first 6 months of enrollment had their smoking status on record in the EHR. KPNC new members are routinely asked about their smoking status at their first KPNC visit.

**Demographic Characteristics**—Self-reported age, sex, and race/ethnicity were extracted from the EHR. For ease of interpretability, age was included as a categorical variable, which had no impact on the estimates for the main predictor of interest compared to other strategies for age (e.g., continuous, logarithmic). Median household income was geocoded from census data using patients' addresses and was dichotomized as 1 (median household salary) or 0 (>median household salary).(20, 21)

**Comorbidities**—We identified the most common current psychiatric disorders (depressive disorders, anxiety disorders, attention deficit hyperactivity disorders, bipolar spectrum disorders, and psychotic disorders), substance use disorders (alcohol and drug use

disorders), and medical comorbidities (arthritis, hypertension, chronic pain, diabetes, asthma, chronic heart disease, and COPD) in our sample based on ICD-9 diagnoses recorded by providers in the EHR during the first six months of KPNC enrollment.

**Coverage type**—Patients were classified according to the first KPNC plan type in which they enrolled as new members in 2014: Medicaid, California exchange, or commercial (non-exchange) plans purchased by small or large employers or by individuals outside of the California exchange.

**Tobacco Treatment Utilization**—We coded patients as using tobacco treatment if they used medications or counseling services at any point in 2014; the timeframe for capturing utilization ranged from six months to one year (with allowable gaps). Use of tobacco cessation medication was determined by dispensation of any FDA-approved tobacco cessation medication (i.e., nicotine replacement therapy (NRT) gum, NRT lozenge, NRT inhaler, NRT patch, NRT nasal spray, varenicline, or bupropion) from a KPNC pharmacy at any point in 2014, regardless of date of enrollment. In KPNC, a tobacco dependence diagnosis is required for patients to receive a prescription for bupropion for tobacco dependence. Because bupropion is commonly prescribed to treat depressive disorders, we included it only if it was accompanied by a diagnosis of tobacco dependence. Data were extracted from the KPNC Pharmacy Information Management System database, which contains all data related to prescriptions dispensed at a KPNC inpatient or outpatient pharmacy.

Tobacco cessation counseling included KPNC in-person classes or individual telephone coaching during 2014, recorded in the EHR. Health education classes are offered with clinical health educators and focus on increasing motivation to quit by providing education about nicotine addiction, discussing tobacco cessation medications, and offering additional resources. Individual telephone coaching sessions are also available. Clinical health educators and telephone coaches can request cessation medication prescriptions from a patient's physician.

### Statistical Analysis

First, we examined smoking prevalence by type of coverage among the 122,298 newly enrolled patients. We calculated the number and percentage of smokers in each subgroup and used multivariable logistic regression to assess whether coverage type, age group, race, sex, income, and comorbidities predicted the odds of being a smoker. These covariates were initially considered for inclusion in the models based on their associations with smoking, insurance type, and utilization, as detailed in the literature.<sup>(3, 10, 11, 22–25)</sup> Final models were specified after running bivariate logistic models (not shown) to ensure associations between covariates and the outcomes of interest. For bivariate comparisons of multinomial outcomes, we used ordinal logistic regression for ordered outcomes (age category) and polytomous logistic regression for unordered outcomes (race). Subsequent analyses used the subsample (n=15,936) of newly enrolled current smokers. Bivariate logistic regression assessed whether the distributions of age group, race, sex, income, comorbidities, and use of tobacco treatment were significantly different among Medicaid or exchange smokers

compared to commercial plan smokers. We used the Non-Parametric Kruskal-Wallis test to examine differences in the median number of fills in the three coverage groups. Finally, coverage type was modeled as a predictor of the odds of any use of tobacco treatment, as well as the number of prescription fills for tobacco cessation medications (1, 2–3, or 4+ , not shown, adjusting for age group, race, sex, income, and comorbidities in multivariable models. Time enrolled in KPNC in 2014 was also assessed, as patients could have varying lengths of enrollment, leading to differential capture of tobacco cessation utilization. Two-sided p-values were calculated to determine significance of measures, and significance was defined as a p-value <0.05.

**Bias analyses**—We conducted a bias analysis to address the potential impact of the large proportion of patients who were missing information on smoking status, as described in Appendix 2. All statistical analyses were performed using SAS 9.3.

## RESULTS

**Correlates of Smoking**—Medicaid patients were more likely to be current smokers (22%) than exchange (13%) ( $p<.0001$ ) or commercial plan (12%) patients ( $p<.0001$ ). Adjusting for covariates, Medicaid and exchange coverage were associated with statistically significant higher odds of smoking relative to commercial coverage (OR=1.74, 95% CI=1.63–1.85 and OR=1.07, 95% CI=1.03–1.11, respectively) (Table 1). Adults aged 35 or older, with non-White race/ethnicity, female gender, and higher income had significantly lower odds of smoking relative to those aged 34 or younger, with White race/ethnicity, male gender and lower income ( $p<.0001$  for each). Compared to patients with no comorbidities, those with psychiatric disorders, substance use disorders, and medical comorbidities had greater odds of smoking ( $p<.0001$  for each).

**Characteristics of Smokers**—Medicaid smokers were older, less likely to be Hispanic, Asian, Hawaiian or Pacific Islander, or other race/ethnicity, more likely to be Black or female, and had a lower income than commercial plan smokers, while exchange smokers were older and less likely to be Black or Hispanic than commercial plan smokers ( $p<.0001$  for each) (Table 2).

Medicaid smokers had the highest prevalence of comorbidities. More than a third (36%) had a psychiatric comorbidity diagnosis, whereas the prevalence among exchange and commercial plan smokers was 19% and 18%, respectively; depressive disorders and anxiety disorders were the most commonly diagnosed psychiatric comorbidities. Medicaid smokers were also more likely than commercial plan smokers to have a substance use disorder (12% versus 5%, respectively) and to have one or more medical comorbidities (59% versus 36%, respectively) ( $p<.0001$  for each). Relative to commercial smokers, exchange smokers were more likely to have an alcohol use disorder (4% versus 3%, respectively) and to have one or more medical comorbidities (44% versus 36%, respectively) ( $p<.0001$  for each).

**Tobacco Treatment Utilization**—Overall, Medicaid smokers were the most likely to use each type of tobacco treatment in 2014 (Figure 1). Twenty percent of Medicaid smokers versus 13% of exchange smokers and 11% of commercial plan smokers used at least one

type of treatment ( $p < .0001$  for each). Pharmacotherapy, including NRT medications, varenicline, and bupropion, accounted for most treatment. The median number of tobacco cessation medication fills did not vary substantially by coverage type: Medicaid (median 2.0, IQR = 3.0), exchange (median = 2.0, IQR = 3.0), and commercial (median = 2.0, IQR = 2.0), though the distributions of number of fills were significantly different between the three groups ( $p < .0001$ , results not shown).

Adjusting for covariates, Medicaid smokers had greater odds of using at least one type of tobacco treatment than commercial plan smokers (OR = 1.49, 95% CI=1.29–1.73) (Table 3). Older age and female gender were significantly associated with greater odds of tobacco treatment utilization ( $p < .0001$  for each), and Hispanic and Asian smokers had significantly lower odds of utilization compared to white smokers ( $p < .0001$  for each). Co-occurring substance use disorders (OR = 1.61, 95% CI=1.35–1.92), psychiatric disorders (OR = 1.80, 95% CI=1.60–2.01), and medical comorbidities (OR = 1.38, 95% CI=1.24–1.53) were associated with greater odds of tobacco treatment use.

Medicaid smokers had greater odds of filling multiple tobacco cessation prescriptions than commercial smokers (OR = 1.49, 95% CI=1.15–1.92), and exchange smokers had slightly greater (but not significant) odds (OR = 1.16, 95% CI=0.95–1.42) (results not shown). Older smokers and those with psychiatric disorders also had significantly greater odds of filling multiple prescriptions relative to younger smokers and those without psychiatric comorbidities, while Hispanic smokers had 45% lower odds of filling multiple prescriptions relative to white smokers. Substance use disorders and gender were not associated with number of prescription fills.

**Bias Analyses**—Results of the sensitivity analyses suggested that model estimates were modestly to negligibly biased towards the null (1–5% change in ORs); the only exception was the crude OR estimating the effect of Medicaid (vs. commercial) coverage on tobacco treatment utilization, which was estimated to be biased ~30% towards the null. Using these results, we can reasonably conclude that our results are valid estimates, with some instances of under-estimation and no crossover bias.

## DISCUSSION

We evaluated risk factors for smoking among newly enrolled patients following the implementation of the ACA and examined the role of insurance status (i.e., Medicaid, CA exchange, commercial coverage) as a predictor of tobacco treatment use (medication, counseling) among smokers post-ACA. This is one of the first studies to use an extensive EHR with population-based smoking screening to characterize smokers post-ACA in a multi-specialty health care system.

As we anticipated, smoking prevalence was substantially higher among new patients with Medicaid coverage relative to new patients with commercial coverage. Smokers with Medicaid coverage were more likely to be female, less likely to be non-Hispanic White, and more likely to have low income and psychiatric, substance use, and medical comorbidities. Medicaid smokers were significantly more likely than commercial plan smokers to use

tobacco treatments, including pharmacotherapy and counseling, even after adjustment for demographic and clinical characteristics. Medicaid coverage was also associated with filling a greater number of tobacco cessation prescriptions than commercial coverage. These results are consistent with the expectation of pent-up demand among new Medicaid enrollees, and support prior research indicating that Medicaid enrollees file more claims and have greater intensity of care in their first six months of enrollment after the ACA.(26) Our findings suggest that implementation of the ACA may provide opportunities for reducing long-standing disparities in access to smoking cessation services for the most vulnerable segments of the population with the highest smoking rates.

Conversely, smoking prevalence was low among newly insured patients with coverage through the California exchange and among those with traditional commercial plans; use of tobacco treatment was also low in these groups after adjustment for demographic characteristics and comorbidities. Given that half of individuals in the exchange in California were previously uninsured,<sup>22</sup> we would expect a high level of pent up demand in this subgroup. The lack of a difference in tobacco treatment utilization in this group relative to newly insured traditional commercial members, suggests that factors other than access may be influencing health services use (e.g., differences in prior experience with treatment).

Despite ACA-mandated coverage for evidence-based tobacco treatments, which includes at least four counseling sessions and 90 days of FDA-approved medications with no cost-sharing, there is evidence of delayed implementation of the benefit for non-exchange enrollees. For example, in 2014, 100% of KPNC patients enrolling through the California exchange and >90% of Medicaid patients received coverage for tobacco cessation medications with no cost-sharing, while 80% of patients with coverage through commercial plans in 2014 still had cost-sharing for tobacco cessation medications. KPNC eliminated cost-sharing in January 2015 for commercial plan members with ACA-compliant plans after the Departments of Health and Human Services, Labor and Treasury issued guidance about the implementation of the ACA mandate for tobacco treatments.(27) Thus, it is possible that greater utilization of tobacco cessation medications among Medicaid versus commercial new member smokers in 2014 may be due in part to differences in cost-sharing. Conversely, despite evidence that exchange enrollees may be particularly price sensitive,(28) California exchange smokers were no more likely to use tobacco cessation medications than commercial plan smokers, even though they were significantly more likely than commercial plan smokers to receive their medications at no cost. Additional research is needed to better understand underuse of tobacco treatment in this subgroup of smokers.

Male smokers, younger smokers, and smokers with Asian or Hispanic race/ethnicity were less likely than female smokers, older smokers, and White smokers to use tobacco treatments, as shown in prior studies.(29, 30) Persistent challenges in engaging these patients, particularly those newly enrolled in healthcare, may indicate a need to develop targeted outreach and education programs. Determining the causes underlying demographic differences in use of tobacco treatments should help us understand the barriers associated with the patient (e.g., low interest in treatment) and the healthcare system (e.g., if providers are less likely to tell certain groups of patients about smoking cessation programs and medications).





patients are increasingly treated in accountable care organizations and other multi-specialty and integrated health care systems, it will be important to develop tailored outreach, education, and enrollment efforts to and engage newly insured smokers.(35) Continued monitoring of the association of insurance coverage with use of tobacco treatments and subsequent smoking cessation will help determine whether the promise of health reform for reducing disparities in tobacco use has been met.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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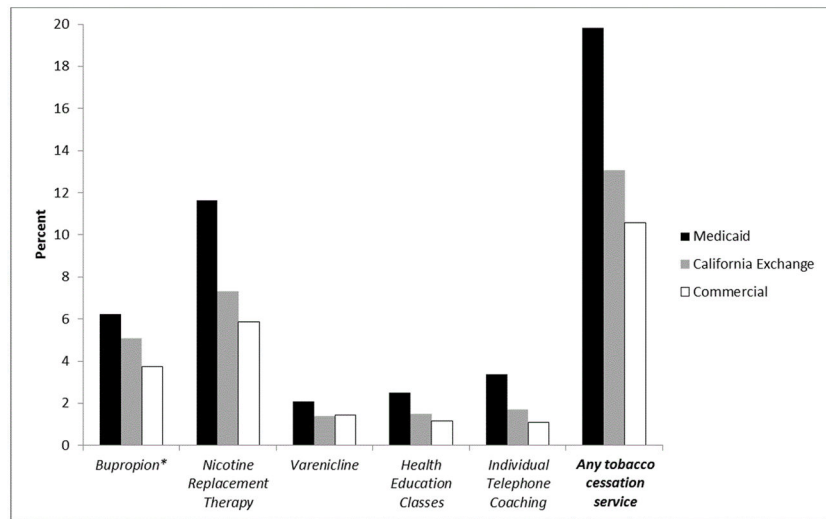
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**Figure 1.**  
Use of Tobacco Treatment in 2014 by Coverage Type  
\*Bupropion fills recorded only for patients with a Tobacco Dependence diagnosis in 2014

**Table 1**

Multivariable logistic regression modeling odds of smoking among newly enrolled KPNC members in 2014

Variable	N (%) Smokers	OR (95% CI)	P-value
<b>Coverage Type</b>			
Commercial (ref)	9,704 (12)	-	-
California Exchange	4,512 (13)	1.07 (1.03, 1.11)	0.0018
Medicaid	1,720 (22)	1.74 (1.63, 1.85)	<.0001
<b>Age Group</b>			
18–24 years (ref)	1,914 (14)	-	-
25–34 years	4,839 (13)	0.94 (0.89, 1.00)	0.057
35–44 years	3,393 (13)	0.88 (0.83, 0.94)	<.0001
45–54 years	3,345 (13)	0.86 (0.81, 0.92)	<.0001
55+ years	2,445 (12)	0.69 (0.64, 0.74)	<.0001
<b>Race</b>			
Non-Hispanic White (ref)	7,931 (15)	-	-
AHPI	2,443 (9)	0.65 (0.62, 0.69)	<.0001
Black	1,444 (18)	1.08 (1.02, 1.16)	0.017
Hispanic	2,795 (10)	0.61 (0.58, 0.64)	<.0001
Other	379 (15)	0.95 (0.85, 1.07)	0.409
<b>Sex</b>			
Male (ref)	9,220 (17)	-	-
Female	6,713 (10)	0.49 (0.47, 0.51)	<.0001
<b>Median Income<sup>a</sup></b>			
<=median (ref)	10,098 (15)	-	-
> median	5,767 (11)	0.68 (0.66, 0.71)	<.0001
<b>Comorbidities</b>			
Psychiatric Disorder			
No (ref)	12,683 (12)	-	-
Yes	3,253 (19)	1.42 (1.35, 1.49)	<.0001
Substance Use Disorder			
No (ref)	15,024 (13)	-	-
Yes	912 (43)	3.45 (3.14, 3.79)	<.0001
Medical Comorbidity			
No (ref)	9,412 (12)	-	-
Yes	6,524 (15)	1.17 (1.13, 1.22)	<.0001

Notes. Ref = Reference Group; AHPI = Asian, Hawaiian, or Pacific Islander; Other = multiracial or Native American;

<sup>a</sup>=Income estimated from median household income of census blocks.

**Table 2**

Characteristics of newly enrolled smokers, by coverage type (N=15,936)

Patient Characteristics	Medicaid	California Exchange	Commercial
<b>Age Group, n (%)<sup>a</sup></b>			
18–24 years	191 (11)	379 (8.4)	1,344 (14)
25–34 years	468 (27)	1,051 (23)	3,320 (34)
35–44 years	379 (22)*	821 (18)*	2,193 (23)
45–54 years	419 (24)	1,118 (25)	1,808 (19)
55+ years	263 (15)	1,143 (25)	1,039 (11)
<b>Mean Age (SD)</b>	40.69 (12.45)*	43.81 (12.95)*	37.96 (11.82)
<b>Race/Ethnicity, n (%)</b>			
Non-Hispanic White	813 (49)	2397 (56.8)	4,721 (52)
Hispanic	254 (15)*	656 (16)*	1,885 (21)
Black	380 (23)*	267 (6)*	797 (9)
AHPI	140 (8)*	809 (19)	1,494 (16)
Other	76 (5)*	90 (2)	213 (2)
Missing	57	293	594
<b>Sex, n (%)</b>			
Female	903 (53)*	1,878 (42)	3,932 (41)
Missing	0	1	2
<b>Median Income<sup>b</sup> (\$) (IQR)</b>			
Missing	7	7	57
<b>Psychiatric Disorders, n (%)</b>			
Depressive Disorders	380 (22)*	475 (11)	896 (9)
Anxiety Disorders	374 (22)*	501 (11)	1,116 (12)
Attention Deficit Hyperactivity Disorders	40 (2)	63 (1)	145 (2)
Bipolar Spectrum Disorders	127 (7)*	105 (2)	209 (2)
Psychotic Disorders	54 (3)*	24 (0.5)	34 (0.4)
<i>Any of the Above</i>	621 (36)*	866 (19)	1,766 (18)
<b>Substance Use Disorders, n (%)</b>			
Alcohol Use Disorder	83 (5)*	167 (4)*	268 (3)
Drug Use Disorder	152 (9)*	125 (3)	262 (3)
<i>Alcohol or Drug Use Disorder</i>	211 (12)*	243 (5)	458 (5)
<b>Medical Comorbidities, n (%)</b>			
Arthritis	459 (27)*	744 (16)*	1,330 (14)
Hypertension	395 (23)*	908 (20)*	1,290 (13)
Chronic Pain	368 (21)*	342 (8)	654 (7)
Diabetes	176 (10)*	415 (9)*	546 (6)
Asthma	257 (15)*	323 (7)	660 (7)
Chronic heart disease	58 (3)*	117 (3)*	130 (1)
COPD	93 (5)*	159 (4)*	168 (2)

Patient Characteristics	Medicaid	California Exchange	Commercial
<i>Any of the Above</i>	1,015 (59) <sup>a</sup>	2,003 (44) <sup>a</sup>	3,506 (36)

Notes. AHPI = Asian, Hawaiian, or Pacific Islander; Other = multiracial or Native American; COPD = Chronic obstructive pulmonary disease;

<sup>a</sup>=Single p-value for multinomial outcome calculated using ordinal regression;

<sup>b</sup>=Estimated from median household income of census blocks, and tested using Kruskal-Wallis test;

\* Significantly different from commercial (p<.05).

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**Table 3**

Multivariate logistic regression modeling odds of any tobacco treatment use in 2014 among smokers (N = 15,936)

Variable	OR (95% CI)	P-value
<b>Coverage Type</b> (ref = Commercial)		
Medicaid	1.49 (1.29, 1.73)	<.0001
California Exchange	1.11 (0.99, 1.25)	0.080
<b>Age Group</b> (ref = 18–24 years)		
25–34 years	2.16 (1.69, 2.76)	<.0001
35–44 years	3.03 (2.36, 3.88)	<.0001
45–54 years	3.47 (2.71, 4.44)	<.0001
55+ years	3.55 (2.75, 4.59)	<.0001
<b>Race</b> (ref = Non-Hispanic White)		
AHPI	0.76 (0.65, 0.88)	0.0005
Black	1.04 (0.88, 1.22)	0.662
Hispanic	0.57 (0.49, 0.67)	<.0001
Other	0.83 (0.61, 1.14)	0.244
<b>Sex</b> (ref = Male)		
Female	1.23 (1.11, 1.37)	<.0001
<b>Median Income (\$)<sup>a</sup></b> (ref = median)	0.97 (0.87, 1.08)	0.564
<b>Comorbidities</b>		
Psychiatric Disorder	1.80 (1.60, 2.01)	<.0001
Substance Use Disorder	1.61 (1.35, 1.92)	<.0001
Medical Comorbidity	1.38 (1.24, 1.53)	<.0001
<b>Days of enrollment in 2014</b>	1.002 (1.001, 1.003)	<.0001

Notes. Ref = reference group; AHPI = Asian, Hawaiian, or Pacific Islander; Other = multiracial or Native American;

<sup>a</sup>=Income estimated from median household income of census blocks.