JULY 2017

Medical Assistance with Smoking and Tobacco Cessation: Findings from a 2014-2015 Nationwide Survey of Adult Medicaid Beneficiaries

Key Findings

- According to NAM CAHPS data, 27% of adult Medicaid beneficiaries reported use of tobacco, with 17% using tobacco every day and about 10% using tobacco on some days.
- Among beneficiaries who reported tobacco use:
  - Approximately 74% reported being advised by a health provider to quit.
  - Approximately 44% reported that their health provider recommended medication to assist with quitting smoking or using tobacco.
  - Approximately 39% reported that their health provider recommended methods other than medication (e.g., referral to a tobacco quitline) to assist with quitting smoking or using tobacco.

According to the Centers for Disease Control and Prevention (CDC), tobacco use is the leading cause of preventable disease in the United States. Rates of cigarette smoking have declined in recent years, from 21% of adults ages 18 and older in 2005 to 15% in 2015.[1] However, higher tobacco use persists among certain subgroups of adults, including adults with incomes below poverty, adults ages 25-44, and adults who lack a high school degree or have a GED.[2]

MEASURING SMOKING AND MEDICAL ASSISTANCE WITH TOBACCO CESSATION IN MEDICAID

The first-ever Nationwide Adult Medicaid Consumer Assessment of Healthcare Providers and Systems (NAM CAHPS) survey, conducted by the Center for Medicaid and CHIP Services (CMCS) in 2014 and 2015, is well suited to examine in Medicaid patterns of smoking and assistance with tobacco cessation.[3] The NAM CAHPS surveyed a representative sample of adult beneficiaries who were continuously enrolled in Medicaid from October 2013 through December 2013, prior to state Medicaid expansions that occurred on or after January 1, 2014.[4]

[1] http://www.cdc.gov/nchs/data/nhis/earlyrelease/earlyrelease201605_08.pdf;

[2] http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm

[3] The CAHPS® health plan survey 5.0 was used as the initial basis for development of the NAM CAHPS survey. For additional information on the CAHPS family of surveys see: http://www.ahrq.gov/cahps/index.html. The NAM CAHPS survey is considered a CAHPS-like survey since additional questions were added to the questionnaire.

[4] The sampling frame was constructed from each state's Medicaid Statistical Information System (MSIS) eligibility file, where available. For the few states that did not have up-to date MSIS files, the state provided CMS with a standardized data extract from its internal eligibility system to create a comparable sampling frame. After sorting the file by four mutually exclusive beneficiary subgroups, the contractor used a systematic sample selection with a random start point to select the number of

Included in the NAM CAHPS survey are questions about respondents' use of tobacco and whether their doctor or other health care provider advised them to quit smoking in the six months prior to the interview. This brief summarizes national and state-specific data on these survey questions. All differences discussed in the text are statistically different at $p<.05$. Additional information on the survey, the analytic approach used in this brief, and the survey questions analyzed in this brief can be found in Appendices A and B.

TOBACCO USE AMONG ADULT MEDICAID BENEFICIARIES

Based on 2014-2015 NAM CAHPS data, 27% of adult Medicaid beneficiaries reported smoking or using tobacco, with 17% of adults reporting using tobacco every day and 10% reporting using tobacco on some days (see Table 1). This percentage aligns closely with the 2014 estimate from the National Health Interview Survey that approximately 29% of adults enrolled in Medicaid smoke tobacco.[5]

Table 1. Tobacco Use Among Adult Medicaid Beneficiaries, 2014-2015

	Every Day Percent (SE[6])	Some Days Percent (SE)	Not at All Percent (SE)
All Surveyed States[7]	17.4 (0.13)	9.9 (0.11)	72.7 (0.16)

The sample for the 2014-2015 NAM CAHPS survey was designed to capture four mutually exclusive sub-groups of adult Medicaid beneficiaries based on program enrollment data: adults dually eligible for Medicaid and Medicare; adults (nondual) with disabilities; all other adults enrolled in a managed care organization; all other adults in fee-for-service (FFS) or primary care case management (PCCM) arrangement. Table 2 shows self-reported rates of tobacco use among adult Medicaid beneficiaries. Among the four mutually-exclusive population subgroups that were surveyed in the NAM CAHPS survey, 37% of adults with disabilities reported use of tobacco, compared to 22% of dually eligible beneficiaries, 26% of all other adult beneficiaries in managed care, and 27% of all other adult beneficiaries enrolled in fee-for-service or primary care case management (FFS/PCCM)

Tobacco use varied by population characteristics (see Table 2). Beneficiaries ages 45 to 54 reported the highest prevalence of tobacco use at 37%, compared to 24% of those ages 18 to 34 and 14% of those 65 or older. Tobacco use also varied by education level, sex, race/ethnicity, and health. For example, beneficiaries who reported poor mental or physical health also reported higher levels of tobacco use, compared to beneficiaries in excellent physical or mental health. The prevalence of tobacco use was higher among beneficiaries who had emphysema, asthma, or chronic obstructive pulmonary disease (COPD).

enrollee records within each state and stratum as needed to provide confidence intervals with margins of error under 5 percent at the 95 percent confidence level. The total sample was composed of over 1.2 million cases, averaging approximately 29,000 sampled enrollees per state.

[5] http://www.cdc.gov/media/releases/2015/p1112-smoking-rates.html

[6] SE = standard error of the estimate.

[7] Data are not available for four states that did not participate in the survey: AK, ND, NH, WI.

Table 2. Percent of Adult Medicaid Beneficiaries Who Reported Tobacco Use, by Beneficiary Characteristics, 2014-2015

	Tobacco Use Percent (SE)
All Adult Beneficiaries	**27.3 (0.2)**
Full-benefit Dual Adult Enrollees	22.0 (0.3)
Adults with Disabilities	36.7 (0.3)
All Other Adults - Managed Care	26.3 (0.3)
All Other Adults - FFS or PCCM	27.1 (0.4)
Age	
18 to 34	24.0 (0.3)
35 to 44	30.6 (0.4)
45 to 54	37.4 (0.4)
55 to 64	36.0 (0.4)
65 or older	13.7 (0.3)
Sex	
Male	32.9 (0.3)
Female	24.1 (0.2)
Education	
8th grade or less	18.7 (0.4)
Some high school, but did not graduate	37.3 (0.4)
High school graduate or GED	29.7 (0.3)
Some college	27.1 (0.4)
College graduate or greater	13.4 (0.5)
Race/Ethnicity	
White, Non-Hispanic	35.1 (0.3)
Black, Non-Hispanic	31.2 (0.4)
Asian, Non-Hispanic	9.7 (0.6)
Other Race, Non-Hispanic	33.9 (0.6)
Hispanic/Latino, or Spanish origin	14.1 (0.3)
Overall Health Rating	
Excellent	16.7 (0.5)
Very Good	21.4 (0.4))
Good	26.2 (0.3)
Fair	32.4 (0.3)
Poor	38.1 (0.5)
Mental Health Rating	
Excellent	19.4 (0.4)
Very Good	22.5 (0.4)
Good	25.8 (0.3)
Fair	35.5 (0.4)
Poor	44.3 (0.7)
Beneficiary Had Emphysema, Asthma or COPD	
Yes	40.2 (0.4)
No or Not Ascertained	24.0 (0.2)

MEDICAL ASSISTANCE WITH SMOKING CESSATION

One tool for assessing medical assistance with use of tobacco cessation services is a National Committee for Quality Assurance (NCQA) measure that is endorsed by the National Quality Forum (NQF Measure #0027). The measure captures the percentage of patients who received advice to quit smoking and the percentage of patients whose practitioner recommended or discussed smoking cessation medications or other cessation strategies (see Table 3). This measure is also included in the Centers for Medicare and Medicaid Services' (CMS) Medicaid Adult Core Set.[8]

Table 3. Medical Assistance with Use of Tobacco Cessation Services (NQF Measure #0027)

Measure	Numerator	Denominator
Advising Smokers and Tobacco Users to Quit	Estimated number of beneficiaries who received advice to quit smoking from their doctor or health provider	Self-reported tobacco users
Discussing Cessation Medications	Estimated number of beneficiaries whose doctor or health provider recommended cessation medications	Self-reported tobacco users
Discussing Cessation Strategies	Estimated number of beneficiaries whose doctor or health provider recommended cessation strategies other than medications	Self-reported tobacco users

Cessation medications include nicotine gum, nicotine patch, nicotine lozenge, nicotine nasal spray, nicotine inhaler, and bupropion and varenicline. Telephone helplines, individual or group counseling, or cessation programs are examples of strategies other than medication to assist with quitting smoking or using tobacco.

As Table 4 demonstrates, nearly three-fourths (74%) of adult Medicaid beneficiaries who use tobacco reported being advised by their doctor to quit, 44% of beneficiaries reported that they discussed the use of cessation medications with their doctor or health provider, and 39% reported discussing cessation strategies other than medications.[9] Tobacco users in the "all other adults" subgroups of beneficiaries enrolled in managed care and/or fee-for-service (FFS) reported being advised to quit and/or discussed smoking cessation medications and other cessation strategies at lower rates than individuals who were dually eligible and/or had disabilities. The experiences of individuals in managed care and FFS were similar.

[8] https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/index.html
[9] Ideally, based on clinical guidelines, a health provider should discuss both medications and other strategies if an individual indicates an interest in quitting. For the NQF endorsed measure, a respondent is asked one question about cessation medications and another question about other strategies. The respondent could answer yes to both questions, no to both, or yes to one and no to the other. This analysis only analyzed the responses to conform to the specifications for the NQF endorsed measure and did not examine the overlap in beneficiaries reporting yes to both questions.

Table 4. Percent of Tobacco Users Who Were Advised to Quit or Discussed Cessation Medications or Strategies by Sample Stratum, 2014-2015

	Tobacco Users Advised to Quit Percent (SE)	Tobacco Users who Discussed Cessation Medications Percent (SE)	Tobacco Users who Discussed Cessation Strategies Percent (SE)
All Adult Beneficiaries	**73.5 (0.3)**	**44.4 (0.3)**	**38.8 (0.3)**
Full-benefit Dual Adult Enrollees	81.7 (0.5)	53.0 (0.6)	44.2 (0.6)
Adults with Disabilities	79.8 (0.4)	50.9 (0.5)	42.6 (0.5)
All Other Adults - Managed Care	67.4 (0.7)	37.8 (0.7)	34.9 (0.7)
All Other Adults - FFS or PCCM	67.0 (0.8)	38.0 (0.7)	34.4 (0.7)

Note: Percent includes individuals responding sometimes, usually, or always.

FINDINGS BY SOCIO-DEMOGRAPHIC GROUPS: There is some variation across socio-demographic groups in the recommendations provided by physicians and other health providers on tobacco cessation (see Table 5).

- Younger beneficiaries (ages 18-34) reported the lowest frequency of receiving advice to quit and/or medical and other types of assistance with quitting smoking, compared to other adult Medicaid beneficiaries. Beneficiaries ages 55 to 64 reported being advised most often to quit as well as being recommended medications and other strategies to quit.
- A larger share of women than men reported being advised to quit smoking.
- Frequencies reported for doctors advising their patients to quit or discussing medication and other cessation strategies were similar across levels of education.
- Hispanics, Asians, and other races reported the lowest levels of being advised to quit; however Asians and other races reported discussing cessation medications and other strategies with their doctors at similar levels as Whites and Blacks.
- Hispanics reported discussing cessation medications less often than other racial/ethnic groups.

Table 5. Percent of Tobacco Users Who Were Advised to Quit or Discussed Cessation Medications or Strategies by Socio-Demographic Group, 2014-2015

	Tobacco Users Advised to Quit Percent (SE)	Tobacco Users who Discussed Cessation Medications Percent (SE)	Tobacco Users who Discussed Cessation Strategies Percent (SE)
Age			
18 to 34	62.2 (0.7)	30.9 (0.7)	30.4 (0.7)
35 to 44	72.1 (0.8)	42.3 (0.8)	37.3 (0.8)
45 to 54	77.9 (0.6)	51.0 (0.7)	43.1 (0.7)
55 to 64	83.7 (0.5)	56.1 (0.6)	45.9 (0.6)
65 or older	81.8 (0.8)	52.4 (1.0)	43.0 (1.0)
Sex			
Male	70.6 (0.6)	43.4 (0.6)	38.3 (0.6)
Female	75.8 (0.4)	45.1 (0.4)	39.0 (0.4)
Education			
8th grade or less	73.9 (1.1)	44.6 (1.1)	37.3 (1.1)
Some high school, but did not graduate	74.4 (0.6)	45.4 (0.7)	38.0 (0.7)
High school graduate or GED	73.1 (0.5)	43.9 (0.6)	38.2 (0.5)
Some college	73.6 (0.7)	43.9 (0.7)	40.3 (0.7)
College graduate or greater	72.3 (1.7)	45.5 (1.9)	41.5 (1.9)
Race/Ethnicity			
White, Non-Hispanic	75.5 (0.4)	44.9 (0.4)	38.1 (0.4)
Black, Non-Hispanic	75.8 (0.6)	46.3 (0.7)	42.0 (0.7)
Asian, Non-Hispanic	67.3 (3.2)	49.5 (3.4)	46.5 (3.3)
Other Race, Non-Hispanic	70.4 (1.1)	43.4 (1.1)	37.0 (1.1)
Hispanic/Latino, or Spanish origin	65.5 (1.3)	39.9 (1.2)	36.7 (1.2)

Note: Percent includes individuals responding sometimes, usually, or always.

FINDINGS BY HEALTH CHARACTERISTICS: Table 6 demonstrates the descriptive relationship between one's self-reported health status and being advised about tobacco cessation. Among tobacco users, beneficiaries in better overall health and better mental health reported lower rates of discussing cessation medications and other strategies for quitting than their counterparts. For example, 39% of tobacco users in excellent health reported they were provided recommendations on tobacco cessation medications; whereas approximately 51% of those in poor health reported they received recommendations on tobacco cessation medications. Beneficiaries with emphysema, asthma, or COPD, when compared to those without these conditions, reported higher levels of discussing cessation medications and other strategies for quitting with their doctor or health provider.

Table 6. Percent of Tobacco Users Who Were Advised to Quit or Discussed Cessation Strategies by Health Status, 2014-2015

	Tobacco Users Advised to Quit Percent (SE)	Tobacco Users who Discussed Cessation Medications Percent (SE)	Tobacco Users who Discussed Cessation Strategies Percent (SE)
Overall Health Rating			
Excellent	62.1 (1.6)	39.1 (1.6)	40.2 (1.7)
Very Good	64.2 (1.0)	37.5 (0.9)	37.4 (0.9)
Good	70.9 (0.6)	42.5 (0.6)	37.7 (0.6)
Fair	78.8 (0.5)	47.7 (0.6)	39.8 (0.5)
Poor	82.1 (0.6)	50.5 (0.8)	39.6 (0.8)
Mental Health Rating			
Excellent	65.7 (1.0)	39.5 (1.0)	36.9 (1.0)
Very Good	71.1 (0.9)	43.7 (0.9)	40.2 (0.9)
Good	74.1 (0.6)	44.9 (0.6)	38.9 (0.6)
Fair	77.2 (0.6)	46.9 (0.6)	39.4 (0.6)
Poor	75.8 (0.8)	43.9 (0.9)	36.5 (0.9)
Patient Had Emphysema, Asthma or COPD			
Yes	85.9 (0.4)	57.4 (0.6)	46.3 (0.6)
No or Not Ascertained	68.0 (0.4)	38.4 (0.4)	34.9 (0.4)

Note: Percent includes individuals responding sometimes, usually, or always.

FINDINGS BY STATE: The percentage of Medicaid beneficiaries who reported tobacco use and receipt of medical assistance with tobacco cessation varied across the participating states (see Appendix C and Appendix D, Figures 1-4). For example, while on average about 44% of tobacco users reported discussing tobacco cessation medications with a doctor, this percentage ranged from a high of 48-60% of beneficiaries in the top quintile of states to a low of 30-38% of beneficiaries in the bottom quintile of states (see Appendix D, Figure 3). There is similar variation by state in the percentage of tobacco users whose doctor recommended cessation strategies other than medications (see Appendix D, Figure 4). Five states were in the top quintile for both subcomponents of the measure (i.e., discussing cessations medications and/or cessation strategies other than medications): Maine, Massachusetts, Minnesota, Rhode Island, and Vermont. An additional eight states were in the top quintile for at least one of the two subcomponents of this measure: Colorado, Connecticut, District of Columbia, Hawaii, Michigan, New York, Oregon, and Pennsylvania.

CONCLUSION

The NAM CAHPS data provide a resource to support states and providers in assessing whether Medicaid beneficiaries who use tobacco are receiving medical assistance to quit smoking. Insight from these data can be used to inform improvement efforts that may be tailored toward specific population groups, providers, and/or the delivery system within a Medicaid program that promotes tobacco cessation services.

Over a quarter of adult Medicaid beneficiaries reported tobacco use. While almost three in four tobacco users reported being advised to quit by their physician or other health provider, less than half of tobacco users reported receiving information on medications and other strategies that can help them quit. Descriptive statistics indicate that some Medicaid beneficiaries (e.g., adults who are younger, male, of Hispanic origin, and/or in better health) reported getting advice or recommendations to quit at lower rates than their respective counterparts. Similarly, beneficiaries in the subgroup of "all other adults" (i.e., individuals enrolled in MC or FFS-PCCM) reported lower rates of getting help to quit than adults dually eligible and/or adults with disabilities identified based on program eligibility criteria. Future research should examine these findings further.

States in the top quintile for one or both subcomponents of the medical assistance with smoking and tobacco cessation measure are "higher performing" states. These states may have lessons that can be shared with other states to drive improvements in tobacco cessation in Medicaid. Future studies will need to examine how the results were achieved in order to share best practices with other states.

Quitting tobacco is one of the key steps tobacco users can take to improve their health, and quitting at any age has important benefits. The cost to Medicaid attributable to tobacco use has been estimated by some analysts to be in the billions, motivating all state Medicaid agencies to offer some tobacco cessation services.[10] Medicaid guidance on coverage of tobacco cessation as well as other resources available to support states in their smoking prevention efforts is available on Medicaid.gov.[11] All state Medicaid programs may claim administrative cost expenditures for tobacco quitline activities provided to Medicaid beneficiaries. Medicaid now requires:

- All state Medicaid programs to cover tobacco cessation services (including counseling and pharmacotherapy) for pregnant women at no cost;
- All state Medicaid programs that have a prescription drug benefit to include tobacco cessation medications; and
- States with a Medicaid expansion group to cover tobacco cessation services for new enrollees at no cost (as required for all preventive services rated A or B by the U.S. Preventive Services Task Force).

Medicaid – at the federal and state level – working in partnership with public health agencies, is striving to improve beneficiary awareness of cessation services and to assist more smokers in getting the help they need to quit successfully. To support this effort, CMS' Tobacco Cessation Affinity Group was launched as part of the Medicaid Prevention Learning Network in 2015. The Affinity Group brought together states, CMS, and experts from other federal agencies to facilitate partnerships to improve the delivery of tobacco cessation services to Medicaid enrollees. Among other activities, Affinity Group states developed provider materials to clarify cessation coverage and billing procedures and worked with public health partners to promote the state tobacco quitline. CMS plans to update the resources available on Medicaid.gov[12] to highlight the work of states that have improved delivery of cessation services. A new tool is also under development to support states in using NAM CAHPS data to drive improvements in tobacco cessation services. Finally, CMS works closely with the CDC's Office on Smoking and Health to identify opportunities for collaboration and ways to better support state Medicaid agencies and tobacco control programs to reduce the burden of tobacco use in Medicaid.

[10] https://downloads.cms.gov/cmsgov/archived-downloads/SMDL/downloads/SMD11-007.pdf ; https://www.ncbi.nlm.nih.gov/pubmed/25498551
[11] https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Tobacco.html
[12] https://downloads.cms.gov/cmsgov/archived-downloads/SMDL/downloads/SMD11-007.pdf

This brief was prepared and paid for by the U.S. Centers for Medicare & Medicaid Services.

APPENDIX A: ABOUT THIS BRIEF

About the 2014-2015 NAM CAHPS Survey

The Centers for Medicare and Medicaid Services (CMS) contracted NORC at the University of Chicago and its partner, Thoroughbred Research Group, to conduct the first-ever nationwide adult Medicaid (NAM) Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. NAM CAHPS surveyed a representative sample of adult beneficiaries age 18 and older who were not residing in an institutional setting and were continuously enrolled in Medicaid from October 2013 through December 2013, prior to the state Medicaid expansions that occurred on or after Jan 1, 2014.

The goal of the 2014-2015 NAM CAHPS survey was to obtain national and state estimates of adult Medicaid beneficiaries' experience of care, including access to and utilization of services, across different financing and delivery models and population groups. The CAHPS® health plan survey 5.0 was used as the initial basis for development of the NAM CAHPS questionnaire. NAM CAHPS is a CAHPS-like survey since additional questions were added to the questionnaire. These data will serve as baseline information that can be used in later assessments of the experiences of adult Medicaid beneficiaries.

The sample for the 2014-2015 NAM CAHPS survey was designed to capture four sub-groups of adult Medicaid beneficiaries. The main stratifiers were state (including the District of Columbia) and the following four mutually exclusive beneficiary groups:

- adults dually eligible for Medicaid and Medicare (Full-benefit Dual Enrollees);
- adults (non-dual) with disabilities based on program eligibility criteria (Adults with Disabilities);
- all other adults (non-dual, non-disabled) enrolled in a managed care organization (Managed Care, or MC); and,
- all other adults (non-dual, non-disabled) who obtained care from a fee-for-service (FFS) provider or were enrolled in a primary care case management arrangement (FFS-PCCM).

Beneficiaries in the subgroups of Full Duals and Adults with Disabilities may be enrolled in either a managed care organization or obtain care from a FFS-PCCM provider.

Forty six states and the District of Columbia participated in the 2014-2015 NAM CAHPS survey. Data collection occurred from December 2014 through July 2015, across four waves. The questionnaire was administered first through mail, and then with telephone follow-up where necessary, and was available in both English and Spanish. This effort resulted in an overall response rate of 23.6%, with 272,679 beneficiaries completing the survey. Learn more about the NAM CAHPS at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-cahps/index.html

Overview of Analytic Approach

All statistics presented in this brief are descriptive in nature. Estimates were calculated using survey weights. Survey weights incorporate the selection probability of each sample person, and adjust for differential response rates to produce robust statistical estimates at the state level. The standard error, a measure of the statistical accuracy of the percent, was calculated using the Taylor series linearization method, which takes into account the complex sample design via the concatenated STATE_STRATUM variable. The standard error was used to calculate a 95 percent confidence interval for each estimate and then bivariate comparisons were made by comparing 95 percent confidence intervals. All comparisons discussed in the text are statistically significant at $p<.05$. For further information on weighting and variance estimation please see the Methodology Brief on Deriving Weighted Estimates and Calculating Standard Errors for States and Subpopulations for the NAM CAHPS Survey.

APPENDIX B: NAM CAHPS TOBACCO USE QUESTIONS

Q54. Do you now smoke cigarettes or use tobacco every day, some days, or not at all?

1 ○ Every day
2 ○ Some days
3 ○ Not at all
4 ○ Don't know

Q55. In the last 6 months, how often were you advised to <u>quit smoking or using tobacco</u> by a doctor or other health provider in your plan?

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always

Q56. In the last 6 months, how often was medication recommended or discussed by a doctor or health provider to assist you with <u>quitting smoking or using tobacco</u>? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always

Q57. In the last 6 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with <u>quitting smoking or using tobacco</u>? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.

1 ○ Never
2 ○ Sometimes
3 ○ Usually
4 ○ Always

APPENDIX C: NAM CAHPS TOBACCO USE FINDINGS BY STATE

	Tobacco Use* Percent (SE)	Tobacco Users Advised to Quit ^ Percent (SE)	Tobacco Users who Discussed Cessation Medications^ Percent (SE)	Tobacco Users who Discussed Cessation Strategies^ Percent (SE)
Alabama	35.7 (0.7)	74.6 (1.1)	36.8 (1.2)	30.1 (1.1)
Arizona	24.2 (0.7)	64.1 (1.7)	37.0 (1.6)	32.6 (1.6)
Arkansas	39.6 (0.7)	71.1 (1.1)	41.0 (1.1)	32.6 (1.1)
California	14.5 (0.5)	66.8 (1.8)	38.3 (1.8)	35.3 (1.8)
Colorado	30.1 (1.0)	73.1 (1.8)	42.4 (1.9)	43.2 (2.0)
Connecticut	29.2 (1.2)	73.3 (2.3)	48.4 (2.5)	42.9 (2.4)
Delaware	34.4 (1.1)	76.0 (1.7)	42.9 (1.9)	42.4 (1.9)
District Of Columbia	35.0 (0.9)	78.2 (1.4)	46.3 (1.5)	45.4 (1.5)
Florida	23.5 (0.7)	71.6 (1.6)	39.5 (1.6)	34.4 (1.6)
Georgia	32.9 (0.6)	75.0 (1.0)	38.2 (1.1)	33.1 (1.1)
Hawaii	26.3 (0.7)	71.0 (1.5)	46.3 (1.6)	44.0 (1.6)
Idaho	31.3 (0.7)	72.2 (1.2)	38.0 (1.2)	32.7 (1.2)
Illinois	28.1 (0.7)	73.3 (1.4)	46.9 (1.5)	40.2 (1.5)
Indiana	36.7 (0.7)	77.1 (1.0)	47.8 (1.1)	41.2 (1.1)
Iowa	39.9 (0.8)	73.7 (1.2)	46.5 (1.3)	42.1 (1.2)
Kansas	36.0 (0.7)	73.2 (1.1)	42.1 (1.2)	36.8 (1.1)
Kentucky	44.0 (0.7)	77.0 (1.0)	41.7 (1.1)	33.9 (1.1)
Louisiana	34.4 (0.9)	72.3 (1.6)	38.4 (1.5)	33.5 (1.5)
Maine	32.6 (1.0)	77.6 (1.7)	54.6 (1.9)	50.8 (1.9)
Maryland	32.8 (0.8)	75.9 (1.4)	47.8 (1.5)	42.9 (1.5)
Massachusetts	25.0 (0.7)	77.7 (1.4)	58.4 (1.5)	47.5 (1.6)
Michigan	39.5 (0.9)	79.3 (1.2)	52.3 (1.4)	42.5 (1.4)
Minnesota	30.9 (0.7)	78.2 (1.1)	58.6 (1.3)	49.9 (1.4)
Mississippi	33.8 (0.6)	73.7 (1.0)	41.3 (1.1)	37.8 (1.1)
Missouri	41.6 (0.6)	77.9 (0.9)	44.6 (1.0)	37.0 (1.0)
Montana	36.4 (0.7)	72.3 (1.1)	46.0 (1.1)	41.3 (1.1)
Nebraska	31.9 (0.6)	72.3 (1.1)	40.8 (1.2)	35.6 (1.1)
Nevada	30.0 (0.8)	65.6 (1.6)	29.7 (1.4)	27.0 (1.4)
New Jersey	21.2 (0.7)	78.3 (1.6)	47.1 (1.8)	37.1 (1.7)
New Mexico	26.9 (0.7)	64.8 (1.5)	36.7 (1.4)	34.6 (1.4)
New York	20.8 (0.6)	76.6 (1.5)	55.5 (1.6)	47.2 (1.6)
North Carolina	36.9 (0.8)	77.7 (1.2)	46.2 (1.4)	39.5 (1.3)
Ohio	42.1 (0.9)	72.6 (1.3)	40.4 (1.3)	35.5 (1.3)
Oklahoma	36.0 (1.0)	73.2 (1.6)	44.1 (1.7)	38.7 (1.7)
Oregon	28.9 (0.7)	73.1 (1.3)	48.1 (1.5)	43.5 (1.5)

Pennsylvania	33.3 (0.7)	77.2 (1.1)	49.8 (1.2)	43.1 (1.2)
Rhode Island	26.8 (0.7)	81.3 (1.3)	60.2 (1.5)	53.0 (1.6)
South Carolina	30.5 (0.7)	70.8 (1.4)	39.9 (1.4)	36.3 (1.4)
South Dakota	37.7 (0.8)	67.3 (1.3)	39.4 (1.3)	38.2 (1.3)
Tennessee	41.7 (0.9)	74.2 (1.3)	34.8 (1.2)	32.6 (1.2)
Texas	23.8 (0.9)	64.8 (2.1)	32.7 (1.9)	28.0 (1.8)
Utah	25.3 (0.6)	69.8 (1.2)	40.2 (1.3)	37.0 (1.3)
Vermont	31.0 (0.9)	76.9 (1.5)	56.2 (1.7)	52.9 (1.7)
Virginia	33.7 (0.6)	74.8 (1.1)	39.3 (1.1)	33.0 (1.1)
Washington	28.5 (0.7)	74.0 (1.3)	44.3 (1.4)	41.0 (1.4)
West Virginia	49.1 (0.6)	75.2 (0.8)	42.2 (0.9)	35.3 (0.9)
Wyoming	33.8 (1.0)	68.9 (1.9)	44.6 (1.8)	36.7 (1.8)

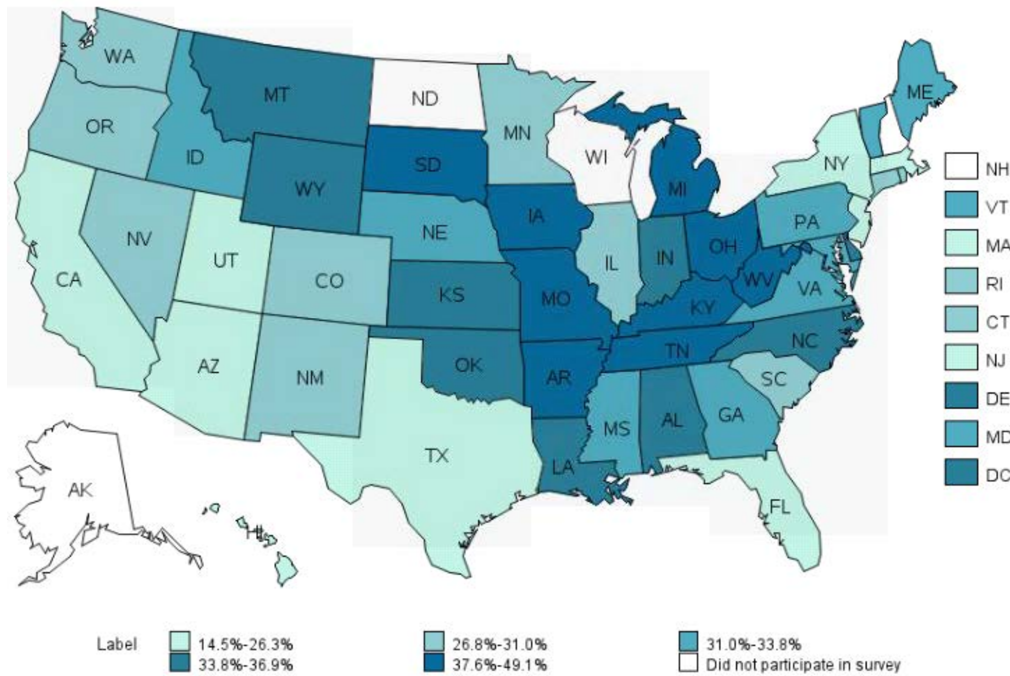
*: Denominator for tobacco use rate is all beneficiaries responding every day, some days, or not at all.

^: Denominator for Advising Smokers and Tobacco Users to Quit, Discussing Cessation Medications and Discussing Cessation Strategies is self-reported tobacco users.

Note: Percent includes individuals responding sometimes, usually, or always.

APPENDIX D: FINDINGS BY STATE (FIGURES 1-4)

Figure 1. Percent of Medicaid Beneficiaries that Use Tobacco, by State



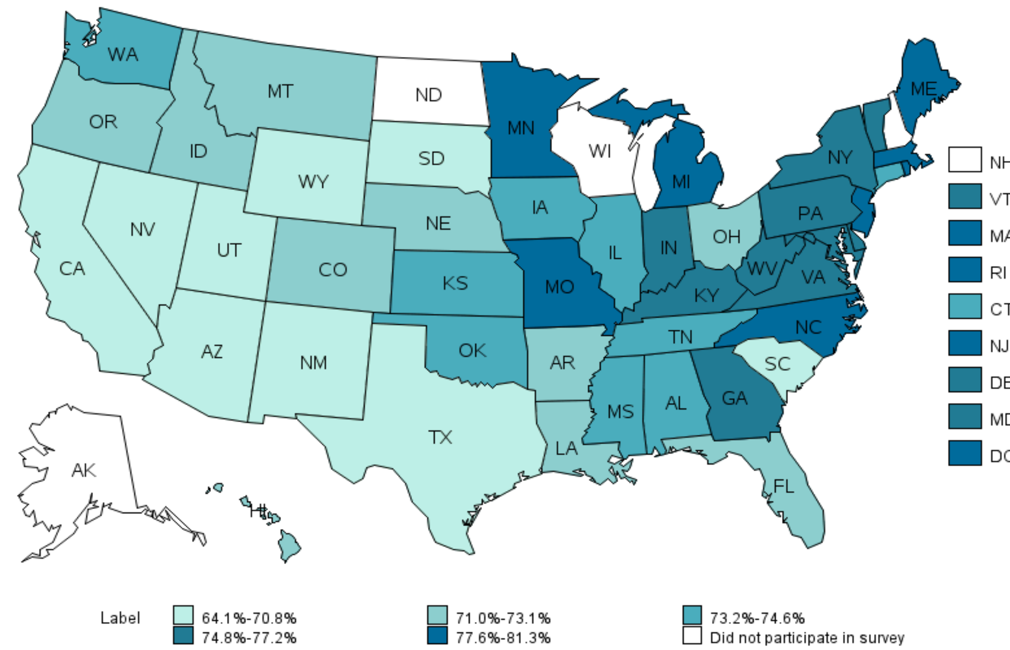
Lowest Reported Tobacco Use

- California (14.5%)
- New York (20.8%)
- New Jersey (21.2%)
- Florida (23.5%)
- Texas (23.8%)
- Arizona (24.2%)
- Massachusetts (25.0%)
- Utah (25.3%)
- Hawaii (26.3%)

Highest Reported Tobacco Use

- West Virginia (49.1%)
- Kentucky (44.0%)
- Ohio (42.1%)
- Tennessee (41.7%)
- Missouri (41.6%)
- Iowa (39.9%)
- Arkansas (39.6%)
- Michigan (39.5%)
- South Dakota (37.7%)

Figure 2. Percent of Tobacco Users Who were Advised to Quit by a Doctor or Health Provider, by State



Top Quintile of States

- Rhode Island (81.3%)
- Michigan (79.3%)
- New Jersey (78.3%)
- District of Columbia (78.2%)
- Minnesota (78.2%)
- Missouri (77.9%)
- Massachusetts (77.7%)
- North Carolina (77.7%)
- Maine (77.6%)

Figure 3. Percent of Tobacco Users Whose Doctor or Health Provider Recommended Tobacco Cessation Medications, by State

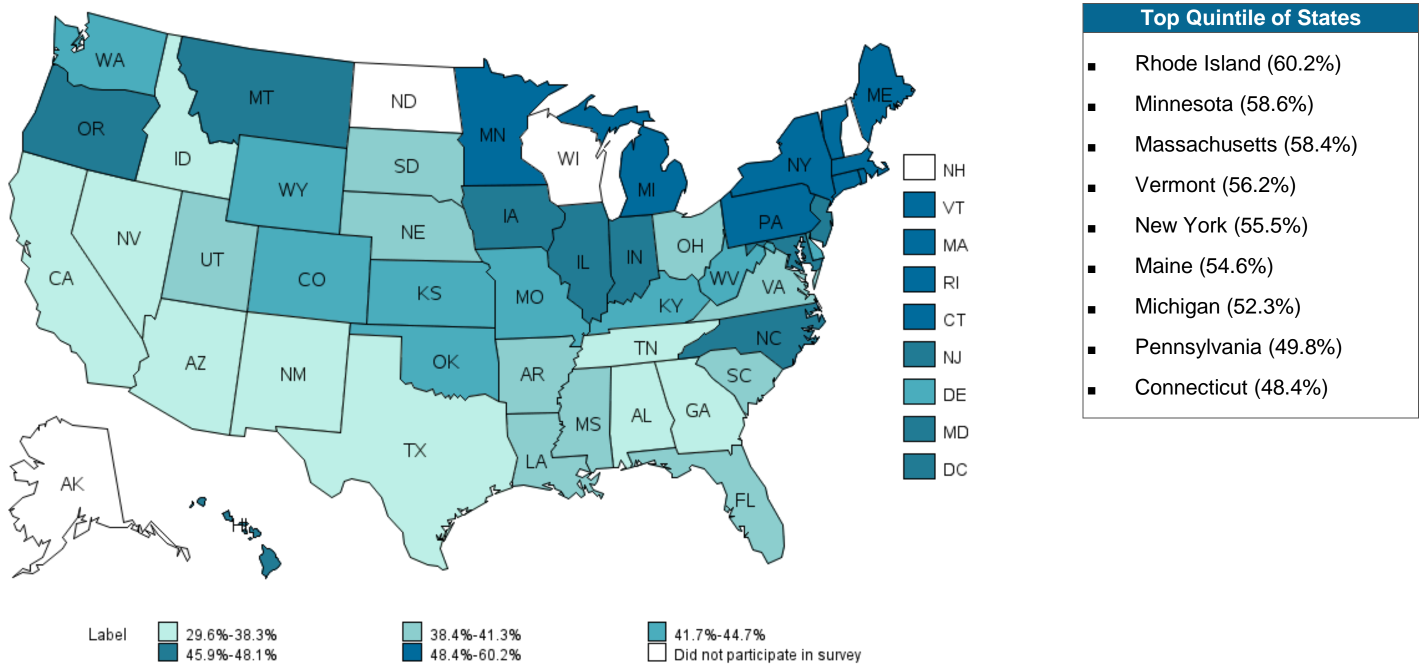


Figure 4. Percent of Tobacco Users Whose Doctor or Health Provider Recommended Cessation Strategies Other Than Medications by State