

Table 18.1 Marijuana Use in the Past Year, Marijuana Use in the Past Month, and Average Annual Incidence Estimates (Expressed as Percentages of the At-Risk Population) of First Use of Marijuana in Kentucky among Individuals Aged 12 or Older, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs

State/Substate Region	Marijuana Use in the Past Year		Marijuana Use in the Past Month		First Use of Marijuana ¹	
	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval
Kentucky	12.66	(11.33 - 14.12)	7.24	(6.22 - 8.42)	1.66	(1.46 - 1.88)
Adanta, Cumberland River, and Lifeskills	11.04	(8.86 - 13.67)	6.32	(4.78 - 8.30)	1.52	(1.20 - 1.91)
Bluegrass, Comprehend, and North Key	13.82	(11.67 - 16.28)	7.67	(6.15 - 9.53)	1.69	(1.38 - 2.08)
Centerstone	14.23	(11.87 - 16.96)	8.31	(6.51 - 10.55)	2.04	(1.64 - 2.53)
Communicare and River Valley	11.46	(8.87 - 14.67)	6.72	(4.94 - 9.09)	1.55	(1.18 - 2.05)
Four Rivers and Pennyroyal	10.47	(8.02 - 13.55)	5.89	(4.27 - 8.07)	1.69	(1.29 - 2.20)
Kentucky River, Mountain, and Pathways	11.95	(9.28 - 15.26)	7.02	(5.18 - 9.44)	1.25	(0.96 - 1.62)

NOTE: For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

NOTE: Estimates along with the 95 percent Bayesian confidence (credible) intervals are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

¹ *Average annual initiation of marijuana (%) = 100 * {[X₁ ÷ (0.5 * X₁ + X₂)] ÷ 2}*, where X₁ is the number of marijuana initiates in the past 24 months and X₂ is the number of individuals who never used marijuana (with the at-risk population defined as 0.5 * X₁ + X₂). Both of the computation components, X₁ and X₂, are based on a survey-weighted hierarchical Bayes estimation approach. The age group is based on a respondent's age at the time of the interview, not his or her age at first use. The Bayesian confidence (credible) intervals presented for Average Annual Estimates of First Use of Marijuana use a simultaneous solution for First Use of Marijuana and Never Used Marijuana outcomes, which had age group-specific random effects that were allowed to be correlated across the two outcomes. The associated Markov Chain Monte Carlo chains were used to calculate the posterior variance. For details, see Section B of the "2015-2016 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Table 18.2 Cocaine Use in the Past Year and Heroin Use in the Past Year in Kentucky among Individuals Aged 12 or Older, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs

State/Substate Region	Cocaine Use in the Past Year		Heroin Use in the Past Year	
	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval
Kentucky				
Adanta, Cumberland River, and Lifeskills	1.57	(1.18 - 2.08)	0.51	(0.31 - 0.84)
Bluegrass, Comprehend, and North Key	1.45	(0.86 - 2.43)	0.47	(0.24 - 0.90)
Centerstone	1.60	(1.07 - 2.38)	0.53	(0.29 - 0.98)
Communicare and River Valley	1.86	(1.20 - 2.87)	0.53	(0.28 - 1.01)
Four Rivers and Pennyroyal	1.48	(0.83 - 2.60)	0.46	(0.23 - 0.92)
Kentucky River, Mountain, and Pathways	1.19	(0.67 - 2.09)	0.48	(0.25 - 0.94)
	1.47	(0.86 - 2.51)	0.52	(0.27 - 1.02)

NOTE: For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

NOTE: Estimates along with the 95 percent Bayesian confidence (credible) intervals are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Table 18.3 Alcohol Use in the Past Month, Underage Alcohol Use in the Past Month, and Alcohol Use Disorder in the Past Year in Kentucky among Individuals Aged 12 or Older or Aged 12 to 20, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs

State/Substate Region	Alcohol Use in the Past Month (12 or Older)		Underage Alcohol Use in the Past Month (12 to 20)		Alcohol Use Disorder in the Past Year ¹ (12 or Older)	
	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval
Kentucky	41.82	(39.52 - 44.16)	19.49	(17.28 - 21.91)	5.34	(4.51 - 6.31)
Adanta, Cumberland River, and Lifeskills	30.81	(26.86 - 35.07)	16.55	(13.30 - 20.40)	4.76	(3.55 - 6.36)
Bluegrass, Comprehend, and North Key	48.47	(44.81 - 52.16)	22.28	(19.07 - 25.87)	5.57	(4.37 - 7.06)
Centerstone	49.22	(45.07 - 53.38)	19.82	(16.74 - 23.31)	5.79	(4.44 - 7.52)
Communicare and River Valley	41.37	(36.05 - 46.90)	18.76	(15.29 - 22.81)	5.26	(3.87 - 7.10)
Four Rivers and Pennyroryal	36.57	(31.48 - 41.99)	18.07	(14.61 - 22.14)	4.99	(3.67 - 6.74)
Kentucky River, Mountain, and Pathways	30.95	(26.31 - 36.00)	17.54	(14.18 - 21.49)	5.06	(3.73 - 6.83)

NOTE: For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

NOTE: Estimates along with the 95 percent Bayesian confidence (credible) intervals are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

¹ Alcohol Use Disorder is defined as meeting criteria for alcohol dependence or abuse. Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Table 18.4 Cigarette Use in the Past Month and Tobacco Product Use in the Past Month in Kentucky among Individuals Aged 12 or Older, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs

State/Substate Region	Cigarette Use in the Past Month		Tobacco Product Use in the Past Month ¹	
	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval
Kentucky	29.20	(27.09 - 31.40)	35.28	(33.21 - 37.41)
Adanta, Cumberland River, and Lifeskills	32.40	(28.36 - 36.72)	38.74	(34.83 - 42.81)
Bluegrass, Comprehend, and North Key	25.92	(22.88 - 29.22)	31.73	(28.58 - 35.05)
Centerstone	26.01	(22.79 - 29.50)	31.89	(28.60 - 35.37)
Communicare and River Valley	32.76	(27.93 - 37.99)	38.76	(34.16 - 43.58)
Four Rivers and Pennyroyal	30.69	(26.37 - 35.39)	36.24	(31.88 - 40.83)
Kentucky River, Mountain, and Pathways	34.58	(30.06 - 39.40)	41.93	(37.48 - 46.52)

NOTE: For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

NOTE: Estimates along with the 95 percent Bayesian confidence (credible) intervals are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

¹ Tobacco Products include cigarettes, smokeless tobacco (i.e., snuff, dip, chewing tobacco, or "snus"), cigars, or pipe tobacco.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Table 18.5 Serious Mental Illness in the Past Year, Any Mental Illness in the Past Year, and Received Mental Health Services in the Past Year in Kentucky among Adults Aged 18 or Older, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs

State/Substate Region	Serious Mental Illness in the Past Year ¹		Any Mental Illness in the Past Year ¹		Received Mental Health Services in the Past Year ²	
	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval
Kentucky	5.06	(4.26 - 6.00)	21.21	(19.38 - 23.17)	17.75	(16.05 - 19.60)
Adanta, Cumberland River, and Lifeskills	5.99	(4.52 - 7.90)	21.72	(18.52 - 25.30)	18.39	(15.52 - 21.66)
Bluegrass, Comprehend, and North Key	4.66	(3.57 - 6.05)	21.20	(18.44 - 24.24)	17.90	(15.50 - 20.59)
Centerstone	4.36	(3.34 - 5.67)	20.33	(17.40 - 23.62)	16.61	(14.10 - 19.47)
Communicare and River Valley	4.81	(3.53 - 6.51)	19.66	(16.33 - 23.48)	17.30	(14.29 - 20.80)
Four Rivers and Pennyroyal	5.27	(3.90 - 7.08)	21.13	(17.66 - 25.07)	17.57	(14.53 - 21.07)
Kentucky River, Mountain, and Pathways	6.20	(4.60 - 8.30)	23.85	(20.12 - 28.04)	19.25	(16.08 - 22.86)

NOTE: For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

NOTE: Estimates along with the 95 percent Bayesian confidence (credible) intervals are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

¹ Mental illness is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, assessed by the Mental Health Surveillance Study (MHSS) *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders* (MHSS-SCID), which is based on the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Any mental illness (AMI) includes adults with any mental disorder regardless of whether their disorder resulted in functional impairment. Serious mental illness (SMI) includes adults with any mental disorder that resulted in serious functional impairment. For details, see Section B of the "2015-2016 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

² Mental health services are defined as having received inpatient treatment/counseling or outpatient treatment/counseling or having used prescription medication for problems with emotions, nerves, or mental health. Respondents were not to include treatment for drug or alcohol use.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Table 18.6 Had Serious Thoughts of Suicide in the Past Year and Major Depressive Episode in the Past Year in Kentucky among Adults Aged 18 or Older, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs

State/Substate Region	Had Serious Thoughts of Suicide in the Past Year ¹		Major Depressive Episode in the Past Year ²	
	Estimate	95% Confidence Interval	Estimate	95% Confidence Interval
Kentucky	4.64	(3.87 - 5.56)	7.40	(6.41 - 8.54)
Adanta, Cumberland River, and Lifeskills	4.88	(3.68 - 6.44)	7.74	(6.09 - 9.80)
Bluegrass, Comprehend, and North Key	4.94	(3.85 - 6.32)	7.25	(5.84 - 8.96)
Centerstone	4.12	(3.15 - 5.38)	7.23	(5.76 - 9.04)
Communicare and River Valley	4.40	(3.28 - 5.87)	6.90	(5.25 - 9.01)
Four Rivers and Pennyroyal	4.53	(3.41 - 5.99)	7.33	(5.67 - 9.43)
Kentucky River, Mountain, and Pathways	4.88	(3.67 - 6.46)	8.21	(6.32 - 10.60)

NOTE: For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

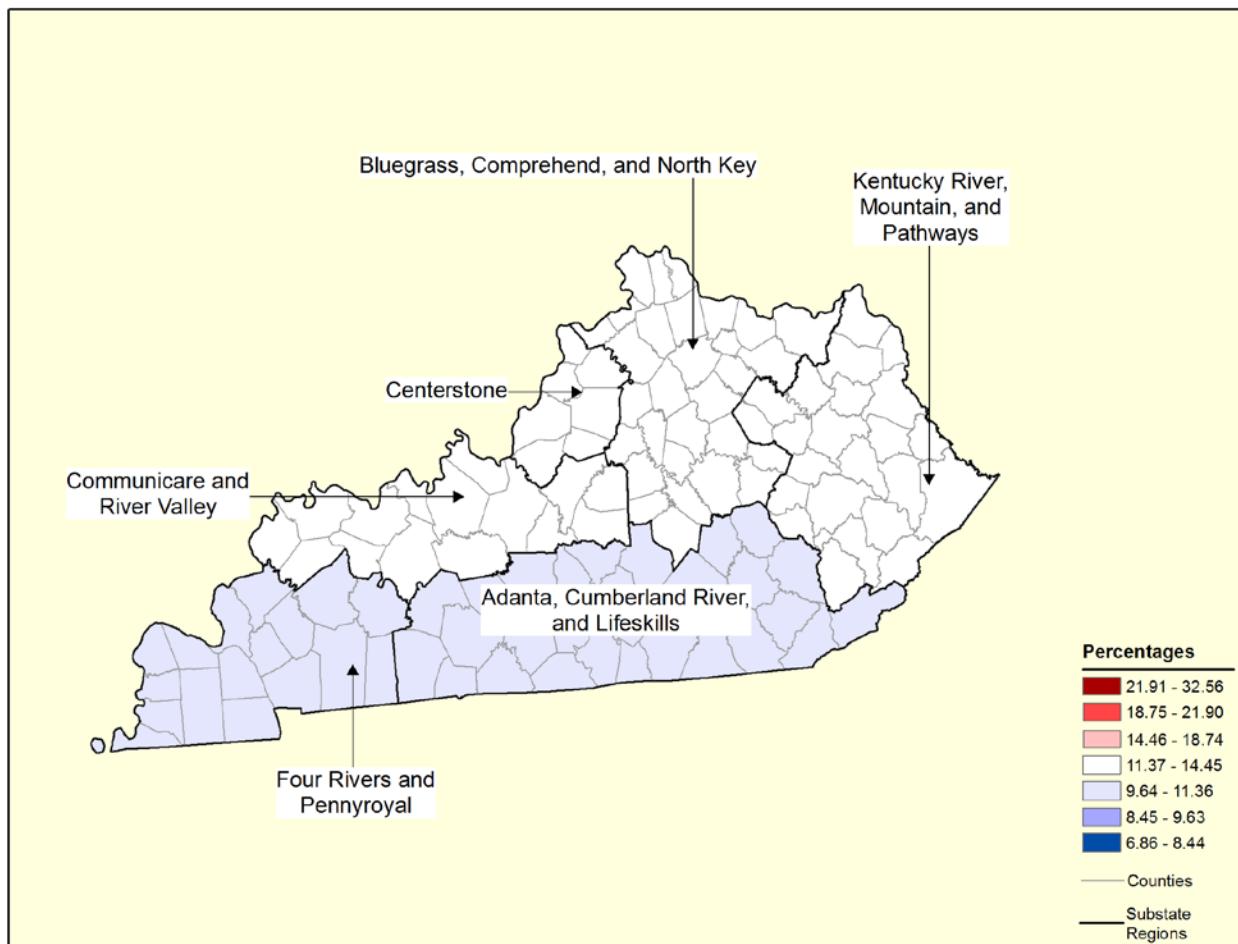
NOTE: Estimates along with the 95 percent Bayesian confidence (credible) intervals are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

¹ Respondents were asked, "At any time in the past 12 months, did you seriously think about trying to kill yourself?" If they answered "Yes," they were categorized as having serious thoughts of suicide in the past year.

² Major depressive episode (MDE) is defined as in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), which specifies a period of at least 2 weeks when an individual experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. For details, see Section B in the "2015-2016 National Survey on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

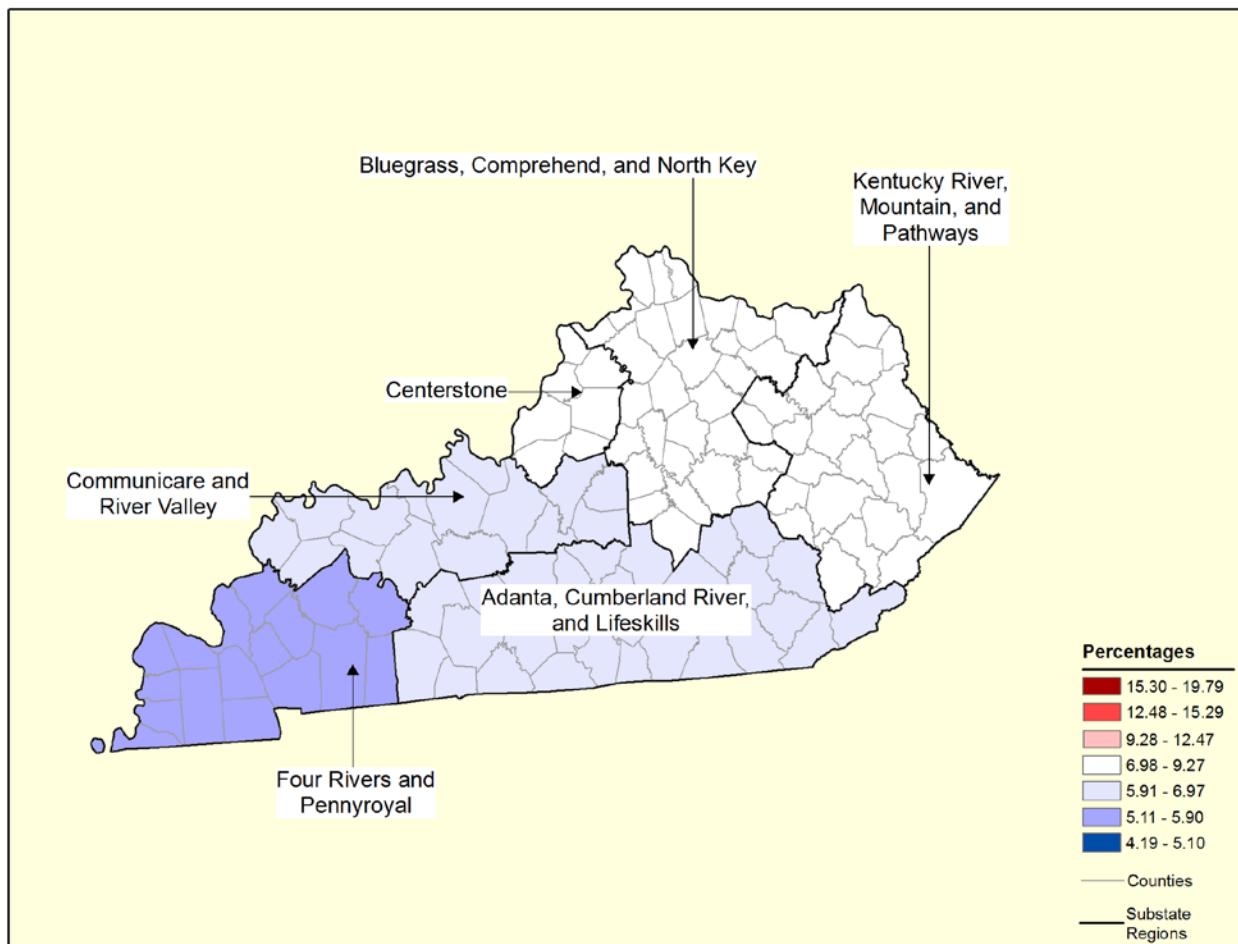
Figure 18.1 Marijuana Use in the Past Year among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

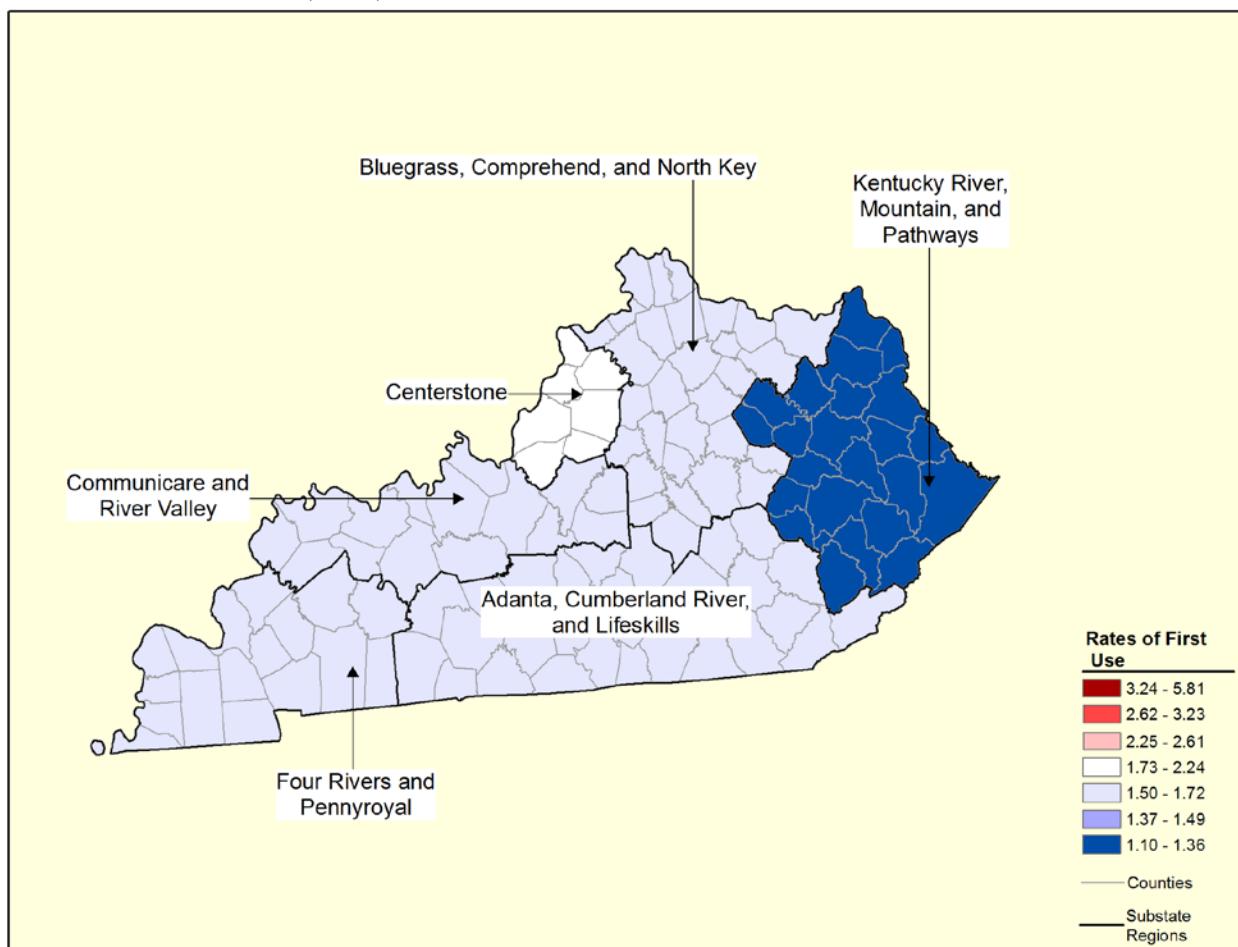
Figure 18.2 Marijuana Use in the Past Month among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Figure 18.3 First Use of Marijuana among Individuals Aged 12 or Older in Kentucky, by Substate Region: Average Annual Incidence Estimates (Expressed as Percentages of the At-Risk Population) Based on 2014, 2015, and 2016 NSDUHs

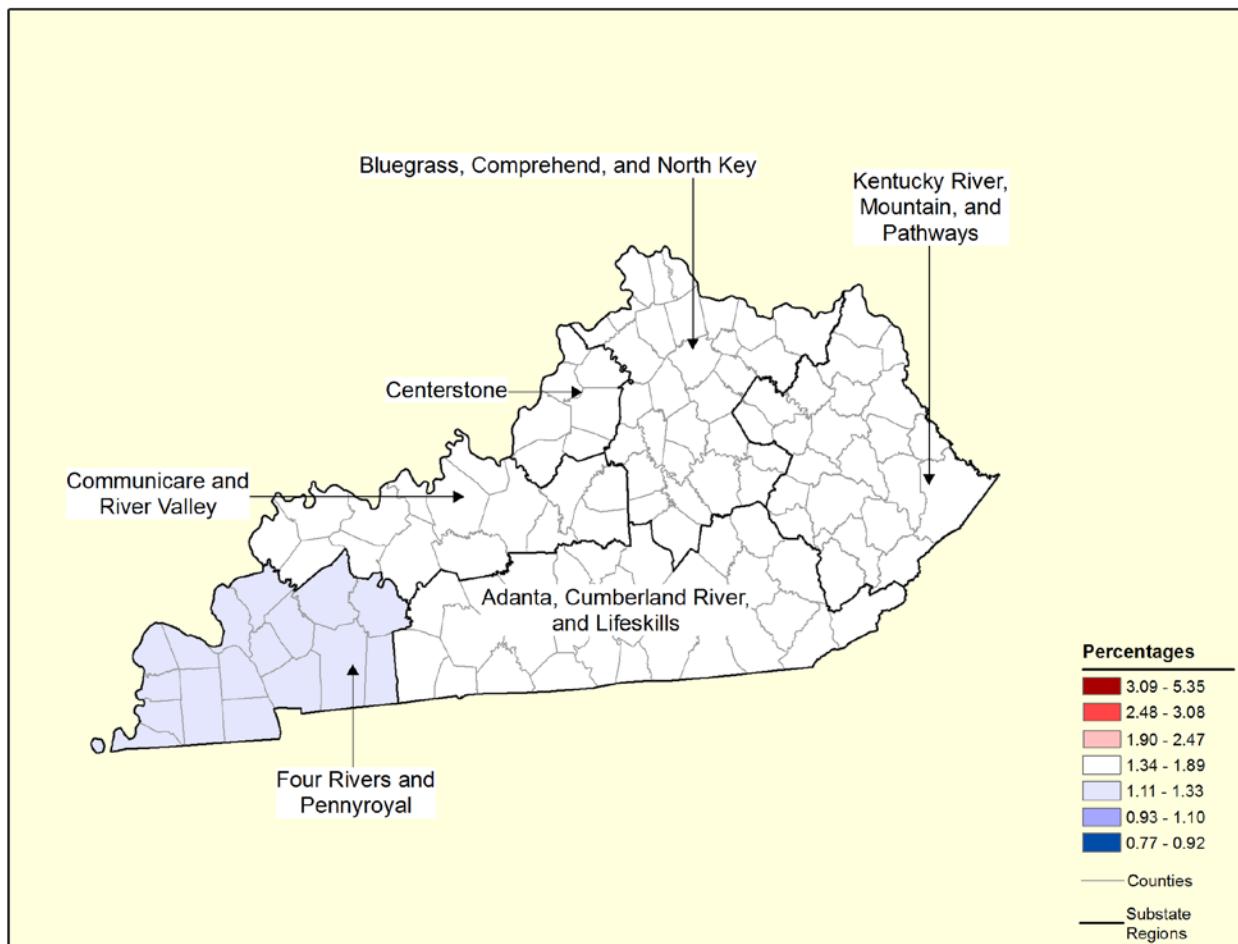


NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages.

For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

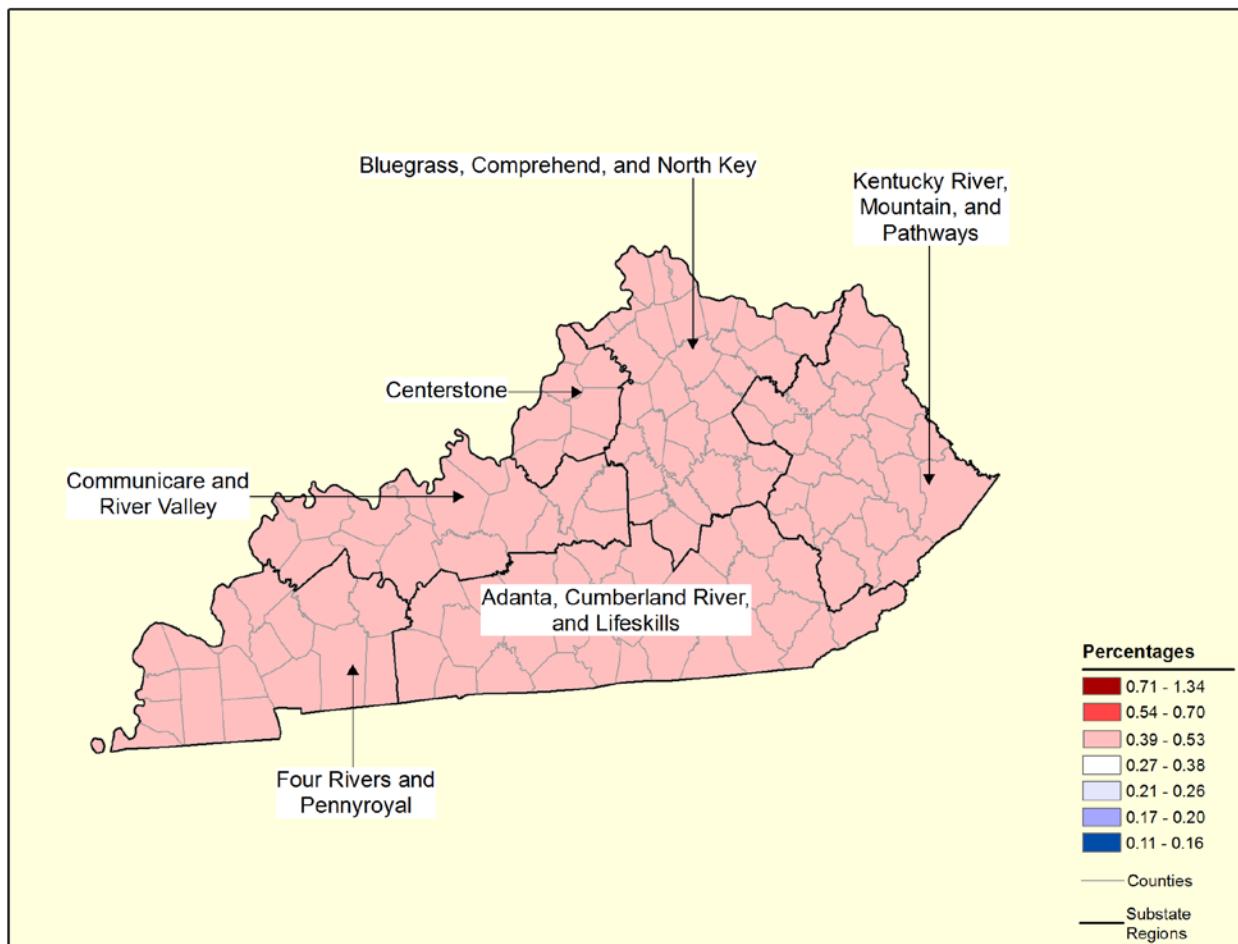
Figure 18.4 Cocaine Use in the Past Year among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

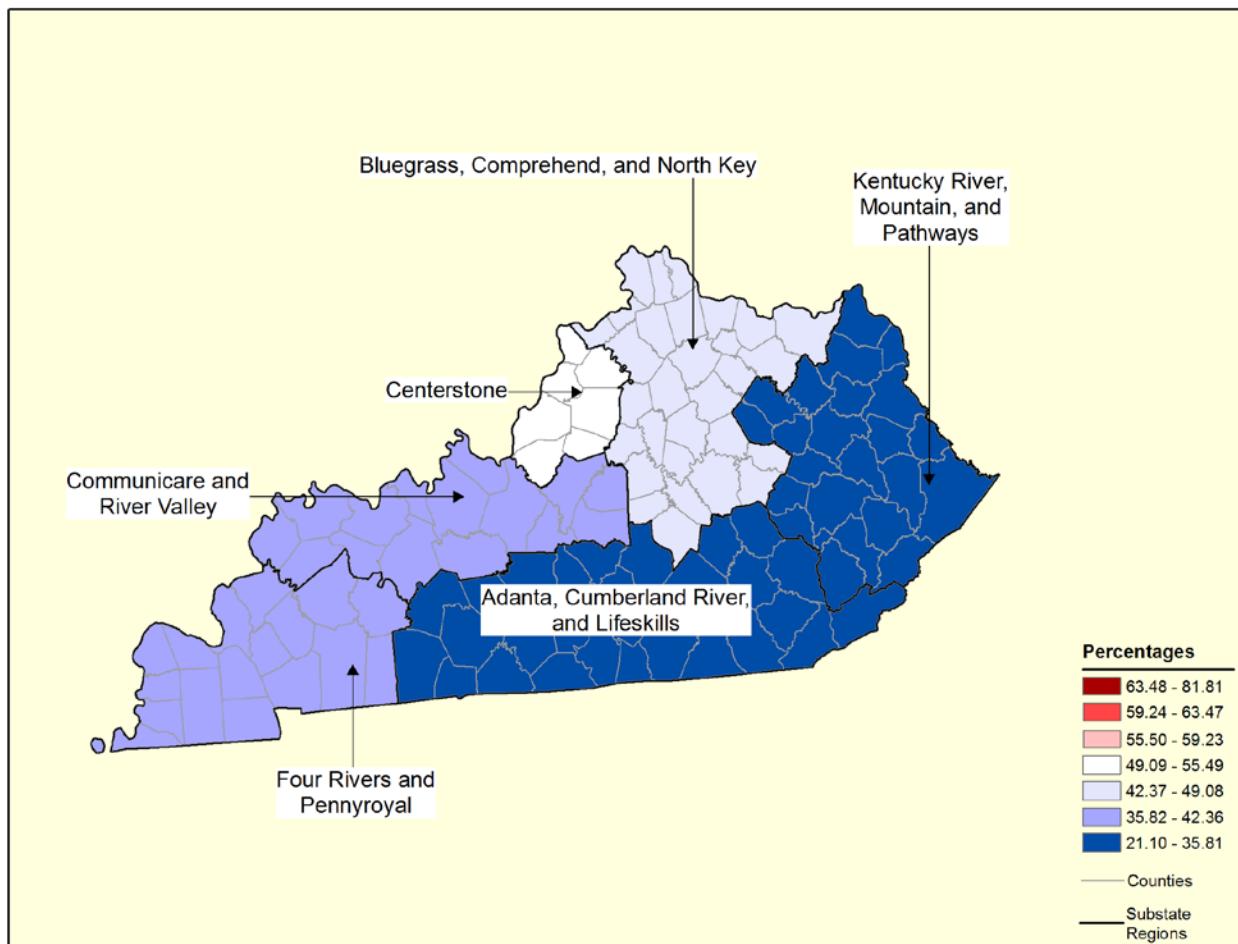
Figure 18.5 Heroin Use in the Past Year among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

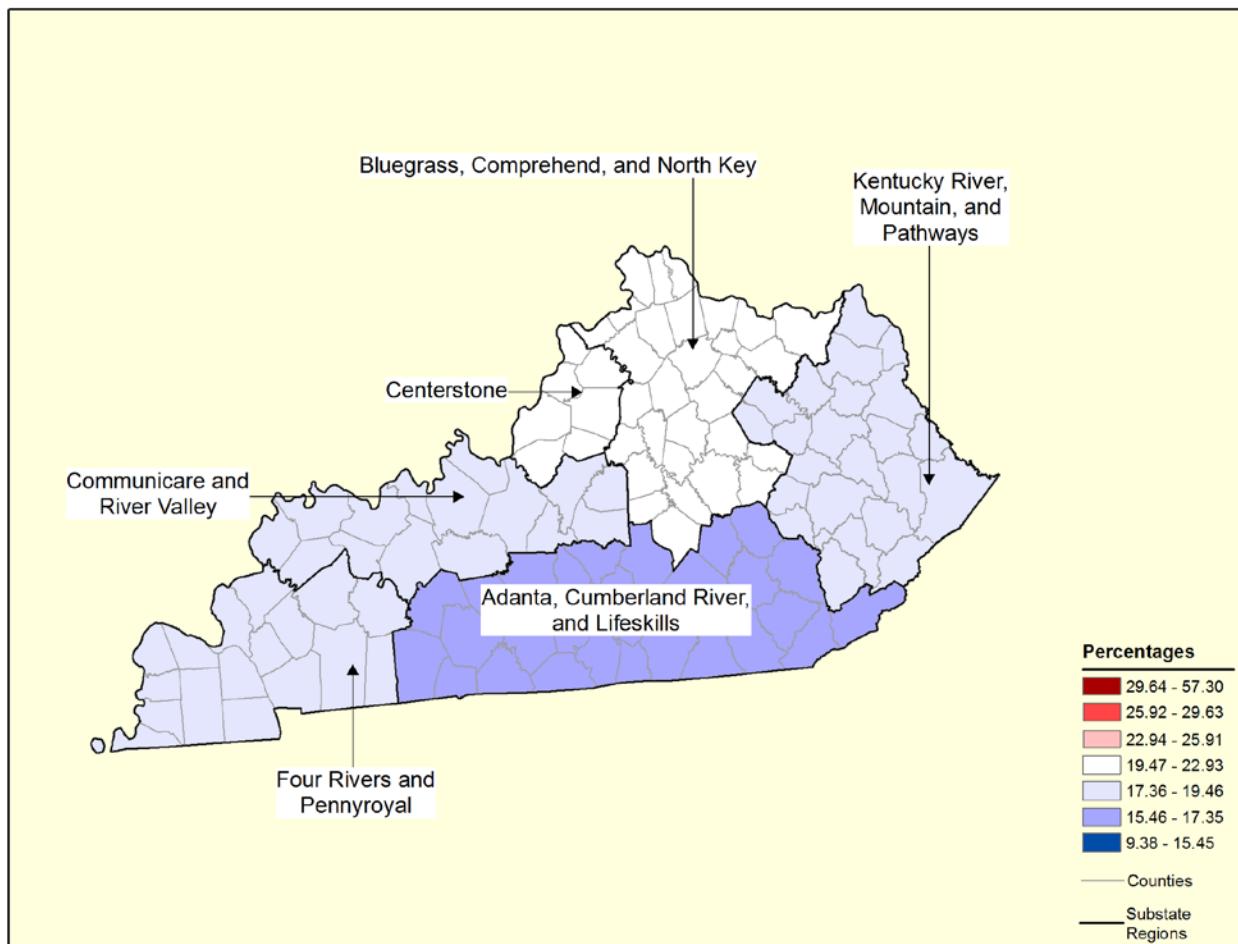
Figure 18.6 Alcohol Use in the Past Month among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

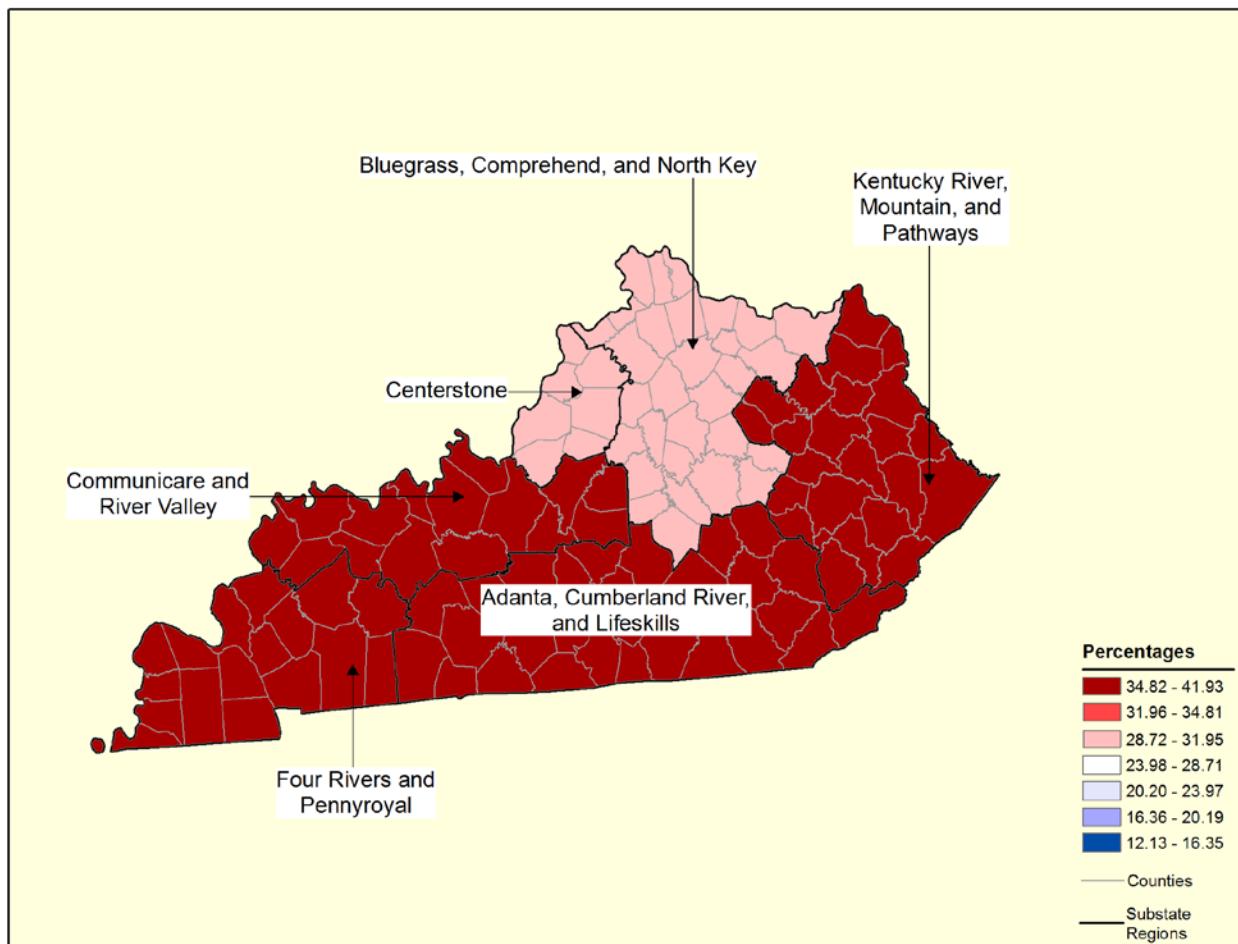
Figure 18.7 Alcohol Use in the Past Month among Individuals Aged 12 to 20 in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

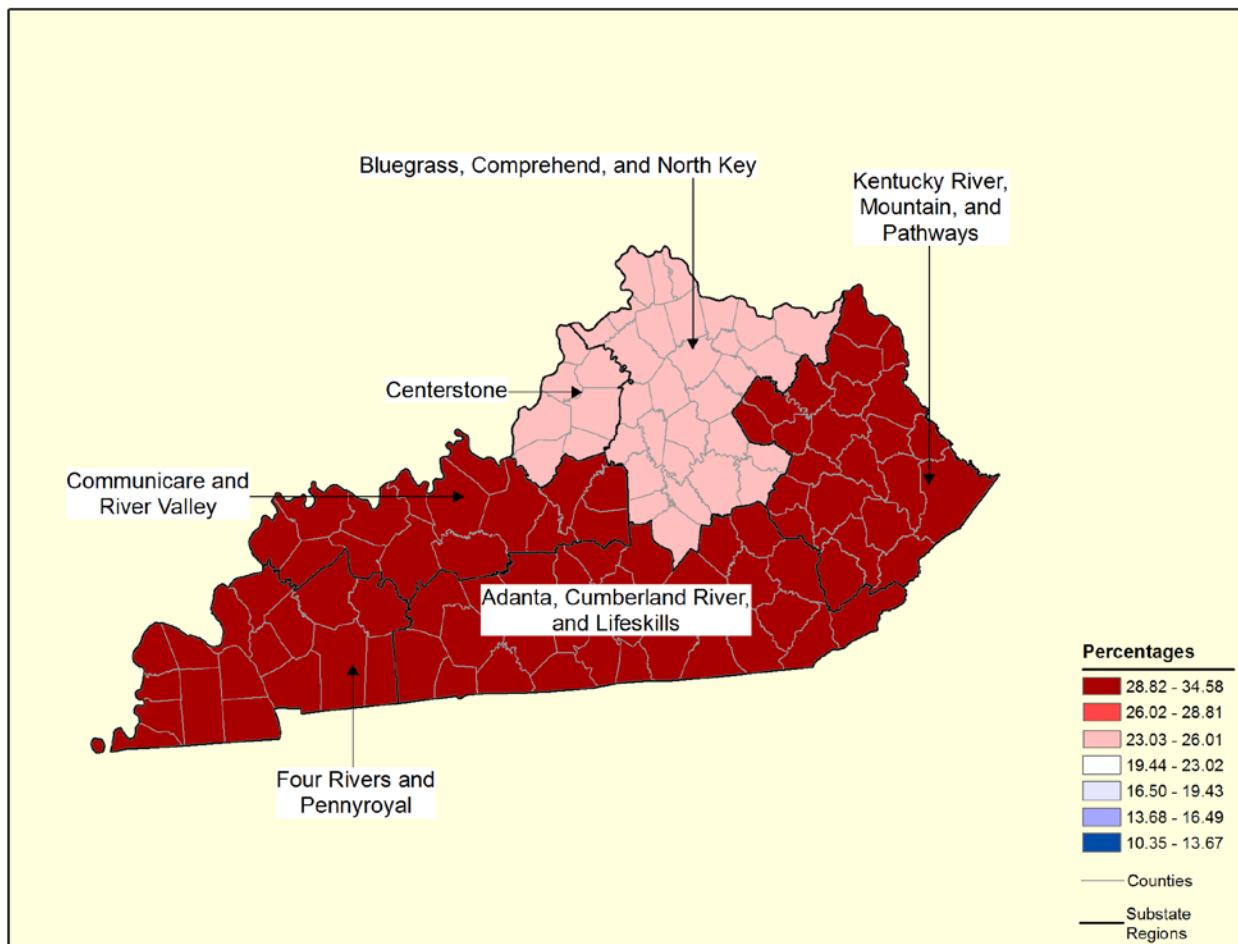
Figure 18.8 Tobacco Product Use in the Past Month among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

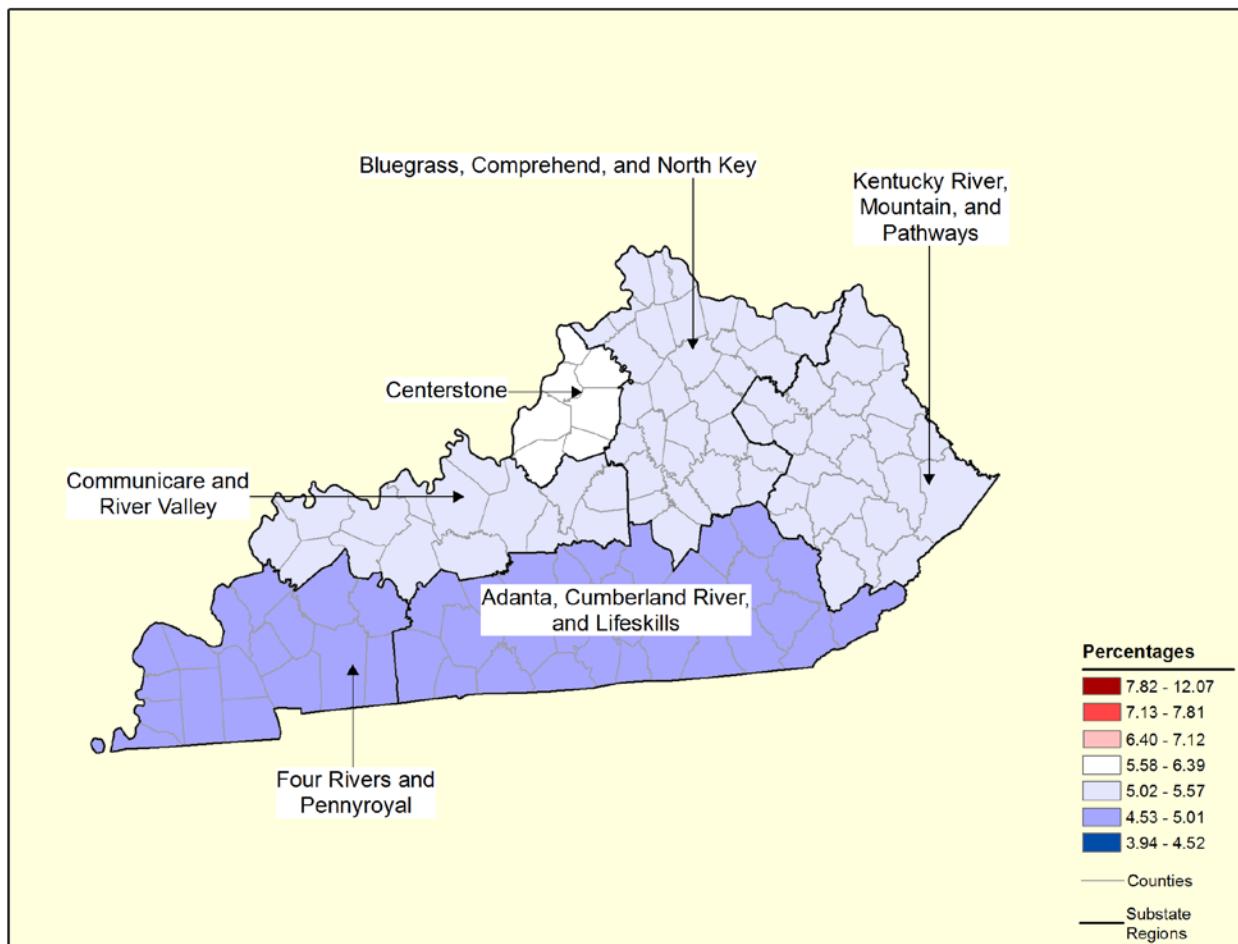
Figure 18.9 Cigarette Use in the Past Month among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

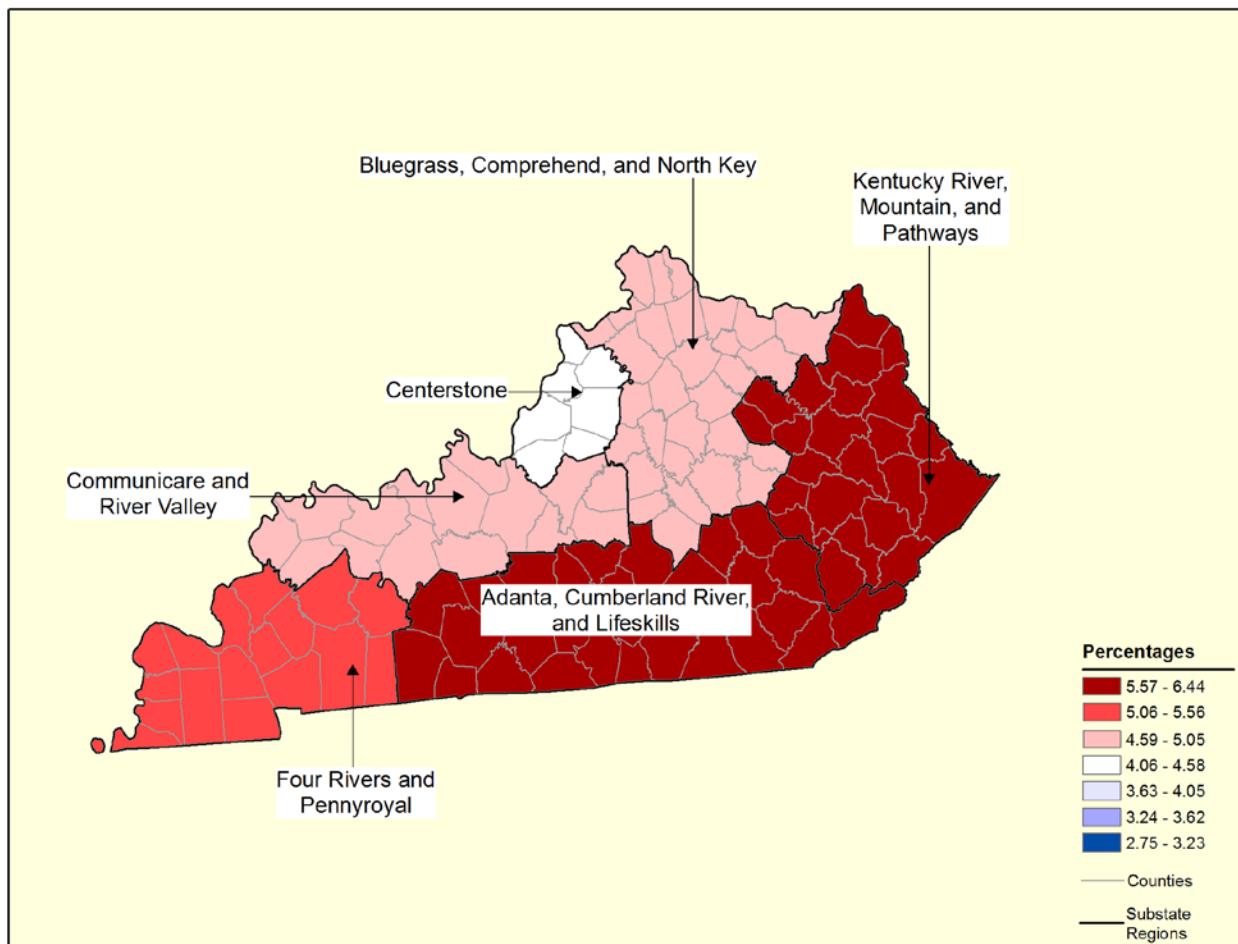
Figure 18.10 Alcohol Use Disorder in the Past Year among Individuals Aged 12 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

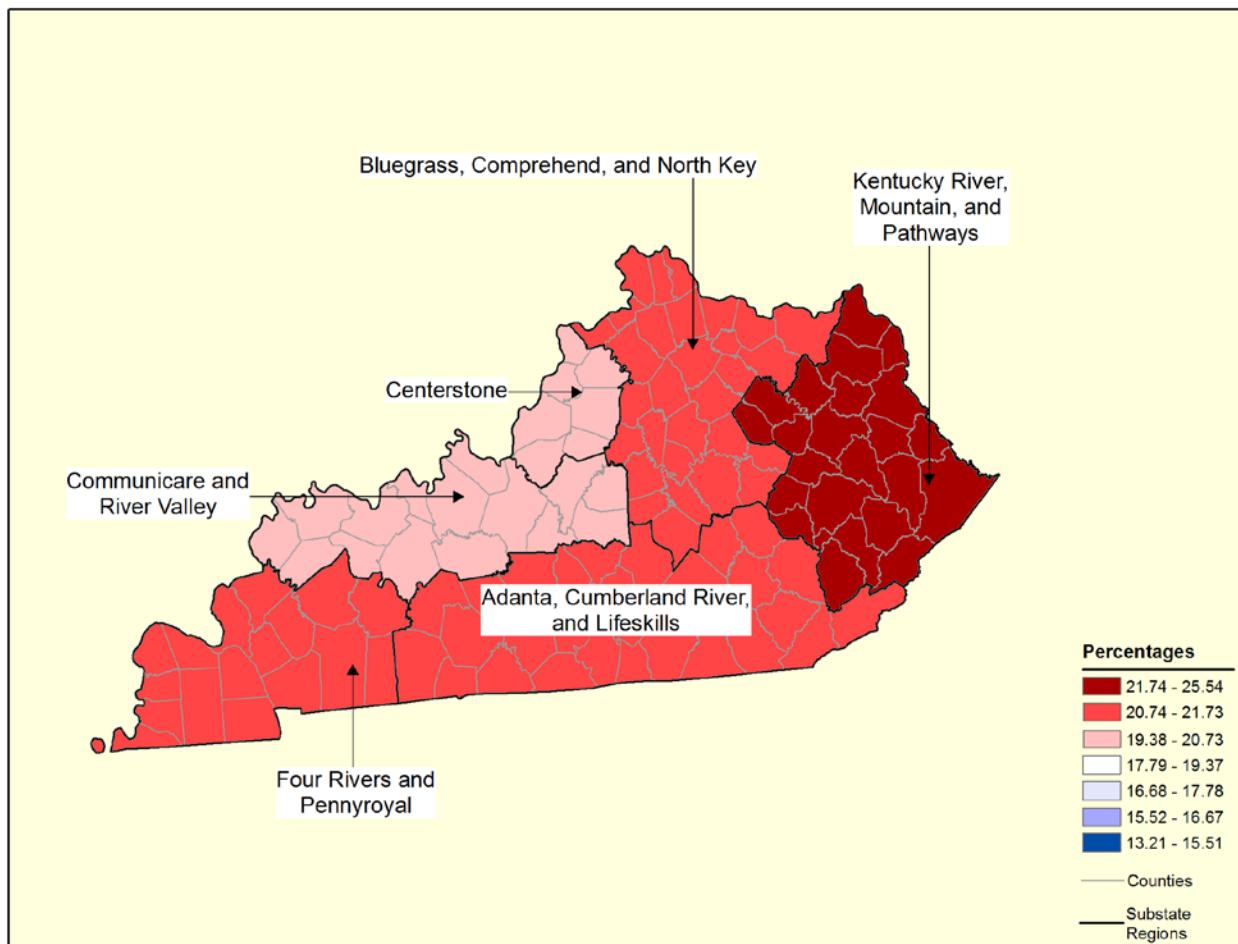
Figure 18.11 Serious Mental Illness in the Past Year among Adults Aged 18 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

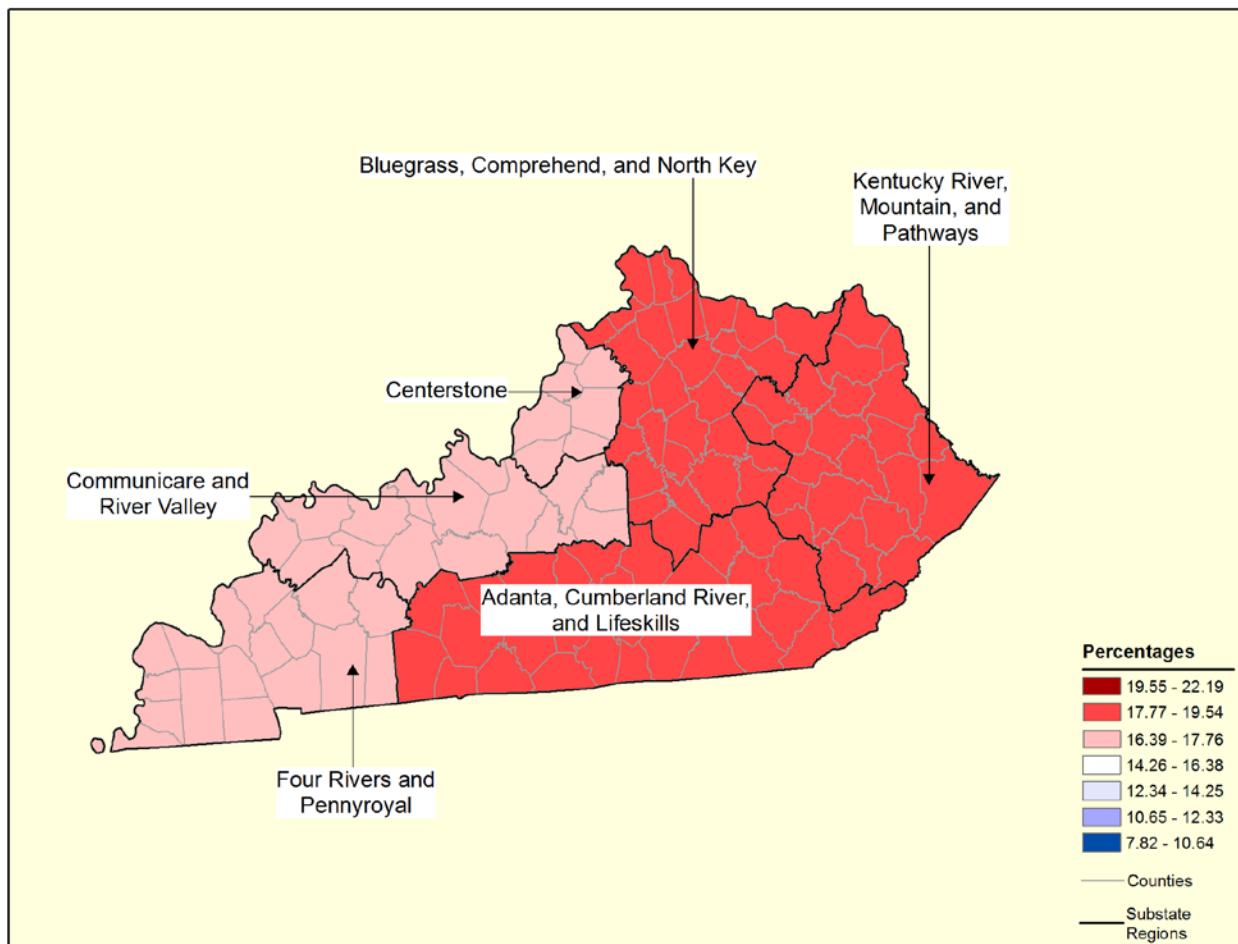
Figure 18.12 Any Mental Illness in the Past Year among Adults Aged 18 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

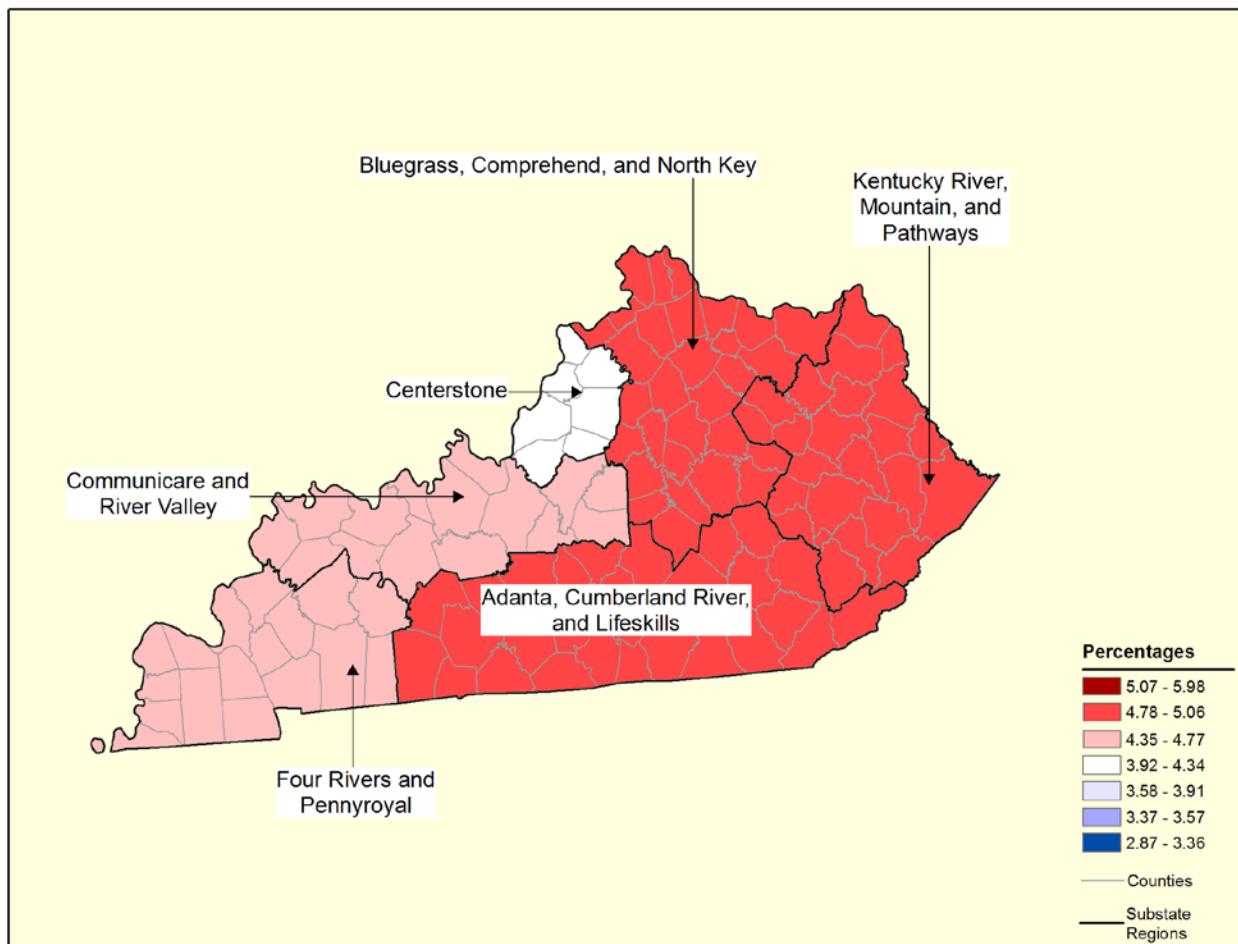
Figure 18.13 Received Mental Health Services in the Past Year among Adults Aged 18 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

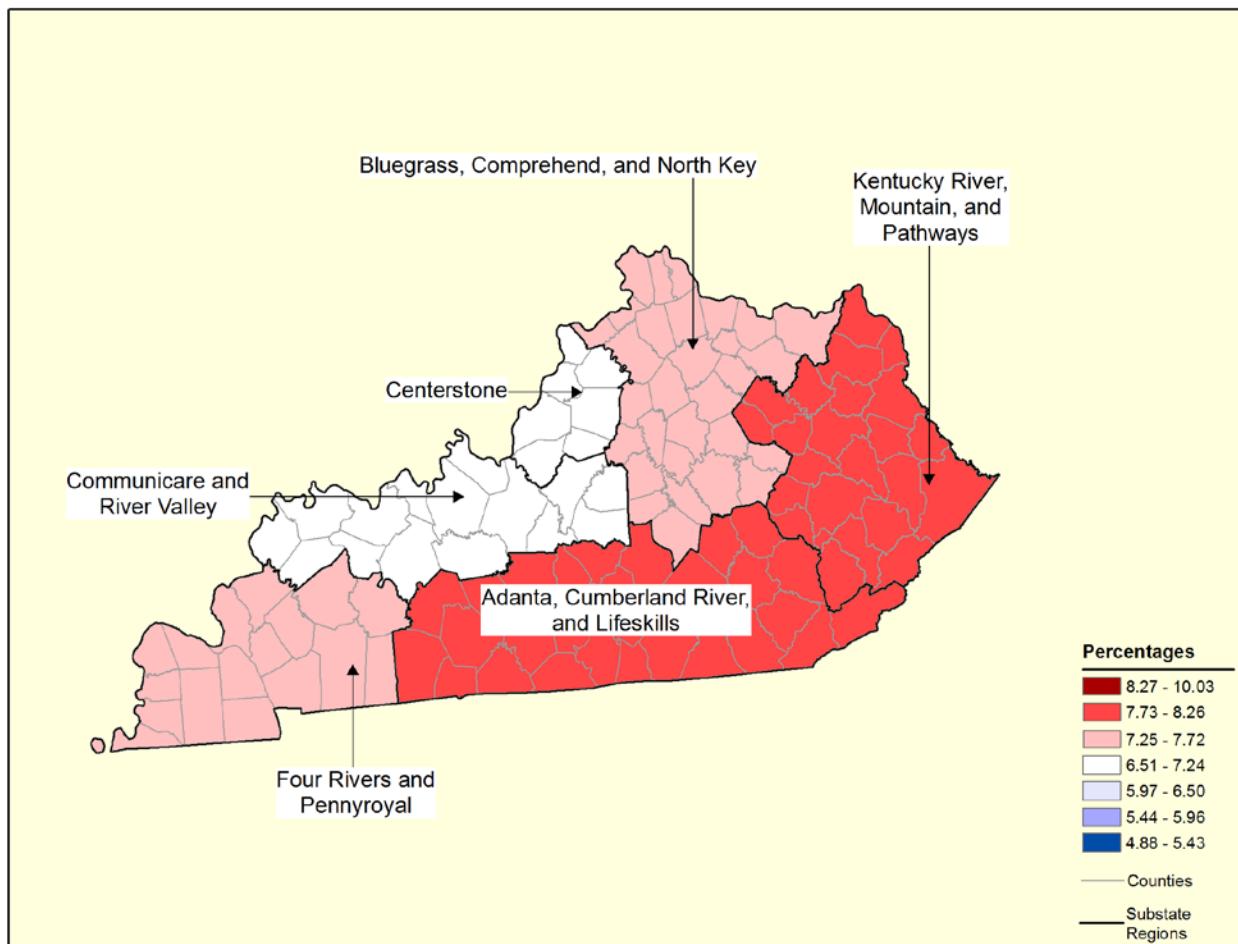
Figure 18.14 Had Serious Thoughts of Suicide in the Past Year among Adults Aged 18 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.

Figure 18.15 Major Depressive Episode in the Past Year among Adults Aged 18 or Older in Kentucky, by Substate Region: Percentages, Annual Averages Based on 2014, 2015, and 2016 NSDUHs



NOTE: The legend's ranges were created by dividing 395 substate regions, nationally, into 7 groups based on the magnitude of their percentages. For substate region definitions, see the "2014-2016 National Survey on Drug Use and Health Substate Region Definitions" at <https://www.samhsa.gov/data/>.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014, 2015, and 2016.