

Appendix Table 1
 Past-year opioid use disorder (OUD) prevalence estimates by State, using multiple methods: United States, 2019.

State	Unadjusted OUD prevalence using NSDUH, No. (Rate ^a)	Adjusted OUD prevalence using NSDUH + multiplier, No. (Rate ^a)	Adjusted OUD prevalence using multiplier with correction for drug poisoning deaths, No. (Rate ^a)
Alabama	44,000 (1,050.9)	197,560 (4,718.5)	94,830 (2,264.9)
Alaska	4,000 (656.9)	17,960 (2,949.7)	18,645 (3,062.2)
Arizona	51,000 (821.8)	228,990 (3,689.8)	199,339 (3,212)
Arkansas	11,000 (430.1)	49,390 (1,931.4)	46,019 (1,799.5)
California	206,000 (612.3)	924,940 (2,749)	772,364 (2,295.5)
Colorado	37,000 (749.6)	166,130 (3,365.6)	139,867 (2,833.6)
Connecticut	14,000 (450.7)	62,860 (2,023.9)	90,895 (2,926.5)
Delaware	10,000 (1,190.7)	44,900 (5,346.5)	32,462 (3,865.4)
D.C.	11,000 (1804)	49,390 (8,100)	24,974 (4,095.8)
Florida	169,000 (903.9)	758,810 (4,058.7)	486,080 (2,599.9)
Georgia	49,000 (545.2)	220,010 (2,447.8)	168,556 (1,875.3)
Hawaii	8,000 (660.6)	35,920 (2,965.9)	39,749 (3,282)
Idaho	12,000 (802.5)	53,880 (3,603)	40,678 (2,720.2)
Illinois	50,000 (461.3)	224,500 (2,071.5)	241,096 (2,224.6)
Indiana	48,000 (841.4)	215,520 (3,777.7)	158,458 (2,777.5)
Iowa	21,000 (784.7)	94,290 (3,523.2)	42,523 (1,588.9)
Kansas	15,000 (611.8)	67,350 (2,747.1)	56,122 (2,289.1)
Kentucky	55,000 (1,445)	246,950 (6,488.2)	120,733 (3,172)
Louisiana	35,000 (892.1)	157,150 (4,005.5)	160,865 (4,100.2)
Maine	15,000 (1,265.9)	67,350 (5,683.9)	28,249 (2,384)
Maryland	22,000 (426.1)	98,780 (1,913.3)	173,620 (3,362.9)
Massachusetts	45,000 (747.9)	202,050 (3,358.1)	157,986 (2,625.8)
Michigan	33,000 (383.9)	148,170 (1,723.9)	205,862 (2,395.1)
Minnesota	8,000 (167.4)	35,920 (751.8)	85,396 (1,787.2)
Mississippi	11,000 (436.3)	49,390 (1,958.8)	44,003 (1,745.1)
Missouri	23,000 (439.3)	103,270 (1,972.4)	143,233 (2,735.7)
Montana	9,000 (980.8)	40,410 (4,403.9)	22,471 (2,448.9)
Nebraska	5,000 (309.1)	22,450 (1,388)	23,005 (1,422.3)
Nevada	22,000 (839.1)	98,780 (3,767.6)	92,033 (3,510.3)
New Hampshire	9,000 (750.9)	40,410 (3,371.5)	29,145 (2,431.7)
New Jersey	69,000 (905.7)	309,810 (4,066.6)	208,485 (2,736.6)
New Mexico	10,000 (559.5)	44,900 (2,512)	76,923 (4,303.6)
New York	77,000 (459.1)	345,730 (2,061.2)	302,139 (1,801.3)
North Carolina	60,000 (667.7)	269,400 (2,998.2)	197,347 (2,196.3)
North Dakota	7,000 (1,098.5)	31,430 (4,932.2)	12,677 (1,989.4)
Ohio	143,000 (1,429.9)	642,070 (6,420.2)	330,519 (3,305)
Oklahoma	17,000 (511.2)	76,330 (2,295.5)	98,954 (2,975.9)
Oregon	32,000 (877.2)	143,680 (3,938.8)	90,173 (2,472)
Pennsylvania	72,000 (649.7)	323,280 (2,917.3)	379,232 (3,422.2)
Rhode Island	5,000 (539.1)	22,450 (2,420.5)	25,291 (2,726.8)
South Carolina	12,000 (271.5)	53,880 (1,219)	107,647 (2,435.5)
South Dakota	2,000 (271)	8,980 (1,216.6)	10,614 (1,438)
Tennessee	50,000 (856.8)	224,500 (3,847.1)	190,267 (3,260.5)
Texas	51,000 (211.6)	228,990 (950.1)	473,958 (1,966.5)
Utah	14,000 (540.1)	62,860 (2,424.9)	82,609 (3,186.8)
Vermont	7,000 (1,270.5)	31,430 (5,704.7)	10,093 (1,831.9)
Virginia	48,000 (656.9)	215,520 (2,949.5)	129,872 (1,777.4)
Washington	57,000 (876.8)	255,930 (3,936.8)	157,182 (2,417.8)
West Virginia	12,000 (770.3)	53,880 (3,458.6)	71,882 (4,614.2)
Wisconsin	24,000 (480)	107,760 (2,155.3)	109,332 (2,186.7)
Wyoming	3,000 (611.3)	13,470 (2,744.9)	10,621 (2,164.4)
All States	1,824,000 (650.9)	7,631,804 (2723.5)	6,698,153 (2,390.3)

Source. Unadjusted OUD prevalence from the National Survey on Drug Use and Health, adjusted OUD prevalence using [Keyes et al. 2022](#) multiplier method, derived from capture-recapture data from the state of Massachusetts, ([Barocas et al., 2018](#)) which estimated OUD rates were 4.49 times higher than the NSDUH state-level estimates in 2015. Multiplier with correction for drug poisoning deaths, utilizes the formula of $y = d / (0.0156p + 0.0052(1-p))$, where y is the estimated OUD population, d is the number of drug overdose deaths as reported by CDC, ([CDC National Center for Health Statistics, 2021](#)) and p is the proportion of deaths that involved a synthetic opioid (see [Keyes et al, 2022](#) for full details on adjustment methodology).

^a OUD estimates are weighted and pooled, 2018-2019.

^b Rates per 100,000 of 2019 population 12+.

Appendix Table 2

Individuals receiving medications for opioid use disorder, including extended-release naltrexone: United States, 2010-2019.

Year	Individuals dispensed extended-release naltrexone (IQVIA), No. (Rate ^a)	Individuals dispensed buprenorphine (IQVIA), No. (Rate ^a)	Individuals dispensed MOUD in opioid treatment programs (N-SSATS), No. (Rate ^a)	Total individuals receiving MOUD, No. (Rate ^a)
2010	-	167,556 (64.5)	294,491 (113.3)	462,047 (177.8)
2011	458 (0.2) ^b	206,531 (78.6)	305,311 (116.2)	512,300 (195.0)
2012	418 (0.2)	259,012 (97.7)	309,700 (116.8)	569,130 (214.6)
2013	781 (0.3)	310,849 (116.2)	334,166 (124.9)	645,796 (241.4)
2014	884 (0.3)	341,064 (126.2)	354,209 (131.0) ^c	696,157 (257.6)
2015	1,356 (0.5)	391,064 (143.4)	374,252 (137.2)	766,672 (281.1)
2016	2,174 (0.8)	426,446 (155.4)	361,262 (131.6)	789,882 (287.8)
2017	4,691 (1.7)	481,627 (173.8)	410,315 (148.1)	896,633 (323.5)
2018	7,165 (2.6)	544,303 (195.3)	426,528 (153.0) ^c	977,996 (350.8)
2019	7,826 (2.8)	581,218 (207.4)	442,741 (158.0)	1,031,785 (368.2)

Source. Data are from the National Survey of Substance Abuse Treatment Services and IQVIA.

^a Rates are per 100 000 people aged ≥ 12 years.^b Extended-release naltrexone was approved for opioid use disorder in October 2010, therefore 2011 is first year persons were dispensed extended-release naltrexone in study month March. This medication is primarily used for treatment of alcohol use disorder.^c N-SSATS did not report the number of individuals receiving any MOUD in opioid treatment programs in 2014 and 2018. To obtain these values, we used the average of the preceding and succeeding years.

Appendix Table 3
 Individuals receiving medications for opioid use disorder by state: 2010, 2018.

States	Individuals dispensed buprenorphine (IQVIA), No (Rate ^a)			Individuals dispensed MOUD in opioid treatment programs, No (Rate ^a)			Total Individuals Receiving MOUD ^c , No (Rate ^a)	
	2010	2018	2019	2010	2018 ^b	2019	2010	2018
Alabama	3,117 (77.2)	14,772 (354.1)	16,551 (395.3)	7,858 (194.6)	7,488 (179.5)	7,346 (175.5)	10,975 (271.8)	22,260 (533.7)
Alaska	338 (57.8)	1,568 (256.3)	1,581 (259.7)	110 (18.8)	612.5 (100.1)	856 (140.6)	448 (76.6)	2,180.5 (356.4)
Arizona	2,343 (44.2)	6,487 (106.5)	7,379 (118.9)	5,496 (103.7)	10,777.5 (176.9)	12,011 (193.5)	7,839 (147.9)	17,264.5 (283.4)
Arkansas	500 (20.5)	2,984 (117.1)	3,396 (132.8)	522 (21.4)	1,163 (45.6)	1,431 (56)	1,022 (41.9)	4,147 (162.7)
California	8,435 (27)	22,636 (67.4)	24,650 (73.3)	29,151 (93.4)	40,353 (120.1)	39,916 (118.6)	37,586 (120.5)	62,989 (187.5)
Colorado	1,346 (32)	4,961 (102)	5,449 (110.4)	1,363 (32.4)	4,144 (85.2)	5,498 (111.4)	2,709 (64.5)	9,105 (187.2)
Connecticut	4,274 (139.9)	9,034 (290.6)	9,483 (305.3)	14,298 (468.1)	17,052.5 (548.6)	19,487 (627.4)	18,572 (608.1)	26,086.5 (839.2)
Delaware	1,118 (146.6)	2,523 (302.8)	2,620 (312)	2,031 (266.3)	5,680 (681.8)	5,970 (710.9)	3,149 (412.9)	8,203 (984.6)
D.C.	273 (51.2)	900 (148.3)	1,510 (247.6)	2,065 (387.4)	1,334.5 (219.9)	918 (150.6)	2,338 (438.7)	2,234.5 (368.2)
Florida	9,850 (60.8)	29,291 (158.2)	30,822 (164.9)	12,506 (77.2)	19,492 (105.3)	19,436 (104)	22,356 (138)	48,783 (263.5)
Georgia	3,300 (41.1)	9,651 (108.6)	9,936 (110.5)	6,891 (85.9)	12,517 (140.9)	12,857 (143)	10,191 (127)	22,168 (249.5)
Hawaii	370 (32)	1,398 (115.3)	1,381 (114)	627 (54.2)	868.5 (71.6)	878 (72.5)	997 (86.2)	2,266.5 (186.9)
Idaho	514 (40.3)	2,018 (138)	2,227 (148.9)	300 (23.5)	571 (39.1)	707 (47.3)	814 (63.8)	2,589 (177.1)
Illinois	3,697 (34.3)	9,409 (86.5)	9,807 (90.5)	12,002 (111.3)	15,759 (144.9)	16,922 (156.1)	15,699 (145.6)	25,168 (231.4)
Indiana	4,585 (84.6)	15,440 (272.6)	17,652 (309.4)	5,337 (98.4)	7,153.5 (126.3)	6,874 (120.5)	9,922 (183)	22,593.5 (398.9)
Iowa	262 (10.2)	898 (33.6)	907 (33.9)	455 (17.8)	1,478.5 (55.3)	1,607 (60)	717 (28)	2,376.5 (88.9)
Kansas	381 (16.1)	1,629 (66.7)	1,576 (64.3)	1,527 (64.6)	2,365 (96.8)	2,337 (95.3)	1,908 (80.7)	3,994 (163.5)
Kentucky	4,282 (117)	25,279 (665)	26,265 (690.1)	1,818 (49.7)	5,004 (131.6)	4,782 (125.6)	6,100 (166.7)	30,283 (796.6)
Louisiana	3,369 (88.9)	11,947 (304.3)	12,371 (315.3)	3,569 (94.2)	3,345.5 (85.2)	3,047 (77.7)	6,938 (183.2)	15,292.5 (389.6)
Maine	2,743 (237.8)	7,400 (628.4)	8,633 (728.6)	3,916 (339.5)	3,631 (308.3)	2,976 (251.2)	6,659 (577.3)	11,031 (936.7)
Maryland	5,415 (110.7)	13,529 (262.4)	14,731 (285.3)	16,042 (328)	27,114.5 (526)	26,658 (516.3)	21,457 (438.7)	40,643.5 (788.4)
Massachusetts	11,536 (204.7)	29,439 (489.1)	30,013 (498.8)	10,628 (188.6)	21,295 (353.8)	20,341 (338.1)	22,164 (393.4)	50,734 (843)
Michigan	6,488 (77.4)	18,467 (214.9)	18,981 (220.8)	8,080 (96.4)	12,132.5 (141.2)	13,736 (159.8)	14,568 (173.8)	30,599.5 (356.1)
Minnesota	842 (18.9)	4,201 (88.5)	4,511 (94.4)	3,697 (83)	6,488.5 (136.7)	6,537 (136.8)	4,539 (102)	10,689.5 (225.2)
Mississippi	2,246 (91.1)	6,006 (238)	5,911 (234.4)	200 (8.1)	516 (20.4)	863 (34.2)	2,446 (99.2)	6,522 (258.5)
Missouri	1,291 (25.6)	5,628 (107.9)	6,829 (130.4)	3,185 (63.1)	3,977.5 (76.2)	3,855 (73.6)	4,476 (88.7)	9,605.5 (184.1)
Montana	449 (53.3)	1,701 (187)	1,470 (160.2)	70 (8.3)	782.5 (86)	965 (105.2)	519 (61.6)	2,483.5 (273)
Nebraska	196 (12.9)	847 (52.6)	901 (55.7)	525 (34.6)	602.5 (37.4)	645 (39.9)	721 (47.6)	1,449.5 (90)
Nevada	1,050 (46.5)	2,874 (111.6)	3,128 (119.3)	1,181 (52.3)	1,917.5 (74.4)	2,101 (80.1)	2,231 (98.9)	4,791.5 (186)
New Hampshire	1,447 (127.4)	5,903 (494.6)	6,099 (508.9)	1,929 (169.8)	3,256 (272.8)	3,043 (253.9)	3,376 (297.2)	9,159 (767.4)
New Jersey	9,128 (122.5)	17,156 (224.7)	17,075 (224.1)	10,300 (138.2)	15,154 (198.5)	15,912 (208.9)	19,428 (260.7)	32,310 (423.2)
New Mexico	817 (47.7)	4,600 (258.5)	4,865 (272.2)	1,844 (107.6)	5,386 (302.6)	5,294 (296.2)	2,661 (155.3)	9,986 (561.1)
New York	11,969 (72.2)	33,571 (199.4)	36,574 (218)	43,346 (261.4)	38,662.5 (229.6)	40,729 (242.8)	55,315 (333.6)	72,233.5 (429)
North Carolina	3,715 (46.4)	20,390 (229.7)	22,274 (247.9)	10,876 (135.8)	16,966 (191.1)	17,139 (190.7)	14,591 (182.2)	37,356 (420.8)
North Dakota	110 (19.2)	431 (67.8)	502 (78.8)	0 (0)	455 (71.6)	728 (114.2)	110 (19.2)	886 (139.4)
Ohio	6,890 (70.6)	36,447 (364.7)	37,579 (375.8)	5,256 (53.9)	9,998 (100.1)	10,554 (105.5)	12,146 (124.5)	46,445 (464.8)

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Appendix Table 3 (continued)

States	Individuals dispensed buprenorphine (IQVIA), No (Rate ^a)			Individuals dispensed MOUD in opioid treatment programs, No (Rate ^a)			Total Individuals Receiving MOUD ^c , No (Rate ^a)	
	2010	2018	2019	2010	2018 ^b	2019	2010	2018
Oklahoma	1,622 (51.9)	5,584 (168.9)	6,308 (189.7)	2,575 (82.4)	4,035.5 (122.1)	4,720 (141.9)	4,197 (134.3)	9,619.5 (291)
Oregon	1,661 (51)	6,467 (179)	7,800 (213.8)	3,404 (104.5)	5,572 (154.2)	5,816 (159.4)	5,065 (155.4)	12,039 (333.2)
Pennsylvania	13,244 (121.4)	41,807 (377.4)	46,031 (415.4)	17,298 (158.6)	24,695.5 (222.9)	26,166 (236.1)	30,542 (280.1)	66,502.5 (600.3)
Rhode Island	1,765 (194)	4,845 (523.7)	4,771 (514.4)	2,560 (281.4)	4,477 (484)	4,519 (487.2)	4,325 (475.5)	9,322 (1007.7)
South Carolina	1,673 (42.8)	7,376 (169.4)	8,173 (184.9)	4,082 (104.5)	6,222 (142.9)	6,513 (147.4)	5,755 (147.3)	13,598 (312.2)
South Dakota	23 (3.4)	221 (30.1)	358 (48.5)	0 (0)	142 (19.3)	130 (17.6)	23 (3.4)	363 (49.4)
Tennessee	5,874 (109.7)	24,240 (419.6)	23,730 (406.6)	4,586 (85.6)	5,638 (97.6)	6,089 (104.3)	10,460 (195.3)	29,878 (517.2)
Texas	7,080 (34.5)	17,503 (73.6)	18,458 (76.6)	9,197 (44.8)	12,977 (54.6)	14,253 (59.1)	16,277 (79.3)	30,480 (128.1)
Utah	2,373 (110.1)	6,084 (239.4)	6,499 (250.7)	2,305 (106.9)	2,872 (113)	2,959 (114.1)	4,678 (217)	8,956 (352.5)
Vermont	1,641 (301.5)	3,553 (643.8)	3,907 (709.1)	864 (158.7)	3,398 (615.7)	3,490 (633.5)	2,505 (460.3)	6,951 (1259.4)
Virginia	3,250 (48)	12,416 (170.5)	13,125 (179.6)	4,581 (67.6)	8,090.5 (111.1)	8,855 (121.2)	7,831 (115.6)	20,506.5 (281.7)
Washington	3,417 (60.2)	14,431 (224.9)	16,871 (259.5)	5,830 (102.7)	12,987 (202.4)	14,179 (218.1)	9,247 (162.8)	27,418 (427.3)
West Virginia	2,307 (144.3)	10,768 (686.9)	11,199 (718.9)	5,043 (315.3)	4,891.5 (312)	4,377 (281)	7,350 (459.6)	15,659.5 (998.9)
Wisconsin	2,746 (57.1)	6,867 (137.8)	7,589 (151.8)	3,165 (65.8)	5,036 (101.1)	5,719 (114.4)	5,911 (122.9)	11,903 (238.9)
Wyoming	194 (41.1)	726 (148.8)	760 (154.9)	0 (0)	0 (0)	0 (0)	194 (41.1)	726 (148.8)
United States	167,556 (64.5)	544,303 (195.2)	581,218 (207.4)	294,491 (113.3)	426,528 (153.0)	442,741 (158.0)	462,047 (177.8)	970,831 (348.2)

Source. Data are from the National Survey of Substance Abuse Treatment Services and IQVIA.

^a Rates are per 100 000 people aged ≥ 12 years.

^b NSSATS did not report the number of individuals receiving any MOUD in opioid treatment programs in 2018. To obtain these values, we used the average of 2017 and 2019 counts.

^c Total persons receiving MOUD excludes those receiving naltrexone dispensed in pharmacies.