

MMHPI COVID-19 Response Briefings

Projected COVID-19 MHSUD Impacts, Volume 1 (Appendix): Effects of COVID-Induced Economic Recession (COVID Recession) on Each U.S. State – April 28, 2020¹

The relationships between economic downturns and mental health and substance use disorder impacts are relatively well-established, and there is evidence that the correlation between deaths from suicide and recession vary from state to state.² Using the methodology developed in our prior report,³ we projected the effect of increasing COVID-induced unemployment (i.e., the COVID recession) on suicide, overdose, and substance use disorders for each of the 50 United States individually. These projections are displayed in Appendix Tables 1-3 below.

¹ Note that this Appendix was updated on June 9, 2020, to correct minor rounding errors in the tables.

² Reeves, A., Stuckler, D., McKee, M., Gunnell, D., Chang, S. S., & Basu, S. (2012). Increase in state suicide rates in the USA during economic recession. *Lancet*, *380*(9856):1813–1814. doi:10.1016/S0140-6736(12)61910-2

³ Meadows Mental Health Policy Institute. (April 28, 2020). Projected COVID-19 MHSUD Impacts, Volume 1: Effects of COVID-Induced Economic Recession (COVID Recession). Retrieved on April 28, 2020 from <https://www.texasstateofmind.org/uploads/whitepapers/COVID-MHSUDImpacts.pdf>

Appendix Table 1. Projected Increase in Lives Lost to Suicide with Increased Unemployment Rates by State.⁴

Suicide				
State	Increase in Suicides per 1% Increase in Unemployment	Increase in Suicides per 5% Increase in Unemployment	Increase in Suicides per 10% Increase in Unemployment	Increase in Suicides per 20% Increase in Unemployment
Alabama	10	70	150	300
Alaska	<6	15	30	70
Arizona	25	120	250	550
Arkansas	10	50	100	210
California	70	375	800	1,700
Colorado	20	110	220	500
Connecticut	10	35	75	160
Delaware	<6	10	20	40
District of Columbia	<6	<6	10	20
Florida	60	300	625	1,350
Georgia	25	130	270	600
Hawaii	<6	15	30	70
Idaho	10	35	70	160
Illinois	25	125	260	560
Indiana	20	90	190	410
Iowa	10	40	85	185
Kansas	10	50	100	210
Kentucky	15	70	140	300
Louisiana	10	60	125	270
Maine	<6	20	50	100
Maryland	10	50	110	245
Massachusetts	10	60	130	280

⁴ All estimates have been rounded to reflect the uncertainty in projecting future behavior. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts. Estimates between 1 and 5 are rounded to “<6”; values between 5 and 9 are rounded to 10.

Suicide				
State	Increase in Suicides per 1% Increase in Unemployment	Increase in Suicides per 5% Increase in Unemployment	Increase in Suicides per 10% Increase in Unemployment	Increase in Suicides per 20% Increase in Unemployment
Michigan	25	130	270	580
Minnesota	10	60	130	280
Mississippi	10	35	75	160
Missouri	20	100	215	465
Montana	<6	20	50	100
Nebraska	<6	25	50	100
Nevada	10	60	110	250
New Hampshire	<6	25	50	110
New Jersey	10	65	135	290
New Mexico	10	45	90	200
New York	30	145	300	650
North Carolina	25	125	260	565
North Dakota	<6	10	25	55
Ohio	30	155	320	700
Oklahoma	15	70	140	300
Oregon	15	70	150	320
Pennsylvania	30	170	350	760
Rhode Island	<6	10	20	40
South Carolina	15	70	140	310
South Dakota	<6	15	30	65
Tennessee	20	100	200	440
Texas	60	300	680	1,450
Utah	<6	55	115	250
Vermont	<6	10	20	50
Virginia	20	105	215	470
Washington	20	105	220	470

Suicide				
State	Increase in Suicides per 1% Increase in Unemployment	Increase in Suicides per 5% Increase in Unemployment	Increase in Suicides per 10% Increase in Unemployment	Increase in Suicides per 20% Increase in Unemployment
West Virginia	10	35	70	150
Wisconsin	15	75	155	335
Wyoming	<6	10	25	55
USA	775	4,000	8,000	18,000

Appendix Table 2. Projected Increase in Drug Overdose-Related Deaths per Year with Increased Unemployment Rates by State.⁵

Drug Overdose Deaths				
State	Increase in Deaths per 1% Increase in Unemployment	Increase in Deaths per 5% Increase in Unemployment	Increase in Deaths per 10% Increase in Unemployment	Increase in Deaths per 20% Increase in Unemployment
Alabama	15	80	165	325
Alaska	<6	10	25	50
Arizona	25	120	240	480
Arkansas	10	50	100	200
California	130	660	1,300	2,650
Colorado	20	100	190	380
Connecticut	10	60	120	240
Delaware	<6	15	30	65
District of Columbia	<6	15	25	50
Florida	70	360	710	1,425
Georgia	35	175	350	700
Hawaii	<6	25	50	100
Idaho	10	30	60	120
Illinois	40	210	425	850

⁵ All estimates have been rounded to reflect the uncertainty in projecting future behavior. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts. Estimates between 1 and 5 are rounded to “<6”; values between 5 and 9 are rounded to 10.

Drug Overdose Deaths				
State	Increase in Deaths per 1% Increase in Unemployment	Increase in Deaths per 5% Increase in Unemployment	Increase in Deaths per 10% Increase in Unemployment	Increase in Deaths per 20% Increase in Unemployment
Indiana	20	110	225	450
Iowa	10	55	105	210
Kansas	10	50	100	200
Kentucky	15	75	150	300
Louisiana	15	80	160	310
Maine	<6	20	45	90
Maryland	20	100	200	400
Massachusetts	25	115	230	460
Michigan	30	170	335	670
Minnesota	20	95	190	375
Mississippi	10	50	100	200
Missouri	20	100	205	410
Montana	<6	20	35	70
Nebraska	10	30	65	130
Nevada	10	50	100	200
New Hampshire	<6	25	45	90
New Jersey	30	150	300	600
New Mexico	10	35	70	140
New York	65	325	655	1,300
North Carolina	35	175	350	700
North Dakota	<6	15	25	50
Ohio	40	200	390	780
Oklahoma	15	65	130	265
Oregon	15	70	140	280
Pennsylvania	45	215	430	860
Rhode Island	<6	20	35	70
South Carolina	20	85	170	340
South Dakota	<6	15	30	60
Tennessee	25	115	225	450

Drug Overdose Deaths				
State	Increase in Deaths per 1% Increase in Unemployment	Increase in Deaths per 5% Increase in Unemployment	Increase in Deaths per 10% Increase in Unemployment	Increase in Deaths per 20% Increase in Unemployment
Texas	90	425	850	1,700
Utah	10	53	105	210
Vermont	<6	10	20	40
Virginia	30	140	285	570
Washington	25	125	250	500
West Virginia	10	30	60	120
Wisconsin	20	100	200	400
Wyoming	<6	10	20	40
USA	1,100	5,500	11,000	22,000

Appendix Table 3. Projected Increase in Illicit Substance Use Disorder (SUD) with Increased Unemployment Rates by State.⁶

Illicit Substance Use Disorder (SUD)				
State	Increase in SUD per 1% Increase in Unemployment	Increase in SUD per 5% Increase in Unemployment	Increase in SUD per 10% increase in Unemployment	Increase in SUD per 20% Increase in Unemployment
Alabama	2,000	8,000	15,000	30,000
Alaska	200	1,000	2,000	5,000
Arizona	3,000	15,000	25,000	50,000
Arkansas	1,000	5,000	10,000	20,000
California	15,000	70,000	140,000	280,000
Colorado	2,000	10,000	25,000	45,000
Connecticut	1,000	7,000	15,000	30,000
Delaware	400	2,000	4,000	7,000

⁶ All estimates have been rounded to reflect the uncertainty in projecting future behavior. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts. Estimates between 1 and 5 are rounded to “<6”; values between 5 and 9 are rounded to 10.

Illicit Substance Use Disorder (SUD)				
State	Increase in SUD per 1% Increase in Unemployment	Increase in SUD per 5% Increase in Unemployment	Increase in SUD per 10% increase in Unemployment	Increase in SUD per 20% Increase in Unemployment
District of Columbia	300	1,000	3,000	6,000
Florida	8,000	40,000	75,000	150,000
Georgia	4,000	20,000	35,000	75,000
Hawaii	500	2,000	5,000	10,000
Idaho	600	3,000	6,000	15,000
Illinois	5,000	25,000	45,000	90,000
Indiana	2,000	10,000	25,000	50,000
Iowa	1,000	6,000	15,000	25,000
Kansas	1,000	5,000	10,000	20,000
Kentucky	2,000	8,000	15,000	30,000
Louisiana	2,000	8,000	15,000	30,000
Maine	500	2,000	5,000	10,000
Maryland	2,000	10,000	25,000	45,000
Massachusetts	3,000	15,000	30,000	55,000
Michigan	4,000	20,000	35,000	70,000
Minnesota	2,000	10,000	20,000	45,000
Mississippi	900	5,000	9,000	18,000
Missouri	2,000	11,000	22,000	45,000
Montana	400	2,000	4,000	8,000
Nebraska	700	4,000	7,000	15,000
Nevada	1,000	6,000	11,000	22,000
New Hampshire	600	3,000	6,000	11,000
New Jersey	3,000	16,000	33,000	66,000
New Mexico	700	3,000	7,000	14,000
New York	7,000	34,000	69,000	140,000
North Carolina	4,000	18,000	37,000	74,000

Illicit Substance Use Disorder (SUD)				
State	Increase in SUD per 1% Increase in Unemployment	Increase in SUD per 5% Increase in Unemployment	Increase in SUD per 10% increase in Unemployment	Increase in SUD per 20% Increase in Unemployment
North Dakota	300	1,000	3,000	6,000
Ohio	4,000	21,000	42,000	84,000
Oklahoma	1,000	7,000	13,000	27,000
Oregon	2,000	8,000	15,000	30,000
Pennsylvania	5,000	24,000	47,000	94,000
Rhode Island	400	2,000	4,000	8,000
South Carolina	2,000	9,000	17,000	34,000
South Dakota	300	2,000	3,000	7,000
Tennessee	2,500	12,000	24,000	48,000
Texas	10,000	50,000	100,000	200,000
Utah	1,000	6,000	12,000	23,000
Vermont	200	1,000	2,000	5,000
Virginia	3,000	16,000	32,000	64,000
Washington	3,000	14,000	28,000	57,000
West Virginia	600	3,000	6,000	12,000
Wisconsin	2,000	11,000	22,000	45,000
Wyoming	200	1,000	2,000	4,000
USA	120,000	600,000	1,200,000	2,400,000