

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Difference-in-Difference Model Assessing Suicides in April Through September 2020 vs 2016 to 2019 in Men by Occupational Status Group

	January	February	March	April	May	June	July	August	September	October	November	
Family business/self-employed												
2016-2019, mean n	98	93	110	98	106	96	88	86	94	99	87	
2020, n	99	95	96	79	72	76	66	80	70	79	74	
Difference-in-difference (95% CI) ^a				-15 (-44 to 14)	-31 (-59 to -2)	-16 (-45 to 12)	-18 (-47 to 11)	-2 (-31 to 26)	-20 (-49 to 9)	-16 (-46 to 14)	-10 (-39 to 20)	
Employee												
2016-2019, mean n	414	353	424	382	407	367	371	353	369	369	342	
2020, n	405	314	408	291	333	287	365	396	410	475	384	
Difference-in-difference (95% CI) ^a				-70 (-128 to 12)	-53 (-111 to 5)	-59 (-117 to 1)	15 (-43 to 73)	64 (6 to 123)	62 (4 to 120)	128 (65 to 191)	63 (0 to 126)	
Student												
2016-2019, mean n	85	81	91	90	70	69	77	75	94	86	68	
2020, n	80	62	80	62	84	78	90	128	138	94	116	
Difference-in-difference (95% CI) ^a				-16 (-54 to 22)	26 (-12 to 64)	21 (-18 to 59)	25 (-14 to 63)	65 (27 to 103)	56 (17 to 94)	20 (-17 to 57)	60 (23 to 97)	
Unemployed												
2016-2019, mean n	479	464	584	539	574	518	538	497	487	490	482	
2020, n	454	401	505	456	445	454	496	487	473	501	513	
Difference-in-difference (95% CI) ^a				-28 (-133 to 77)	-73 (-179 to 32)	-8 (-114 to 97)	14 (-92 to 119)	45 (-60 to 151)	41 (-64 to 147)	66 (-40 to 173)	87 (-20 to 193)	
N=2726 suicides with missing data on occupational status were not included in the analyses.												
^a Subtraction of differences in January through April from differences in April through September. Negative values represent fewer suicides in 2020 vs 2016-2019.												

eTable 2. Difference-in-Difference Model Assessing Suicides in April Through September 2020 vs 2016 to 2019 in Women by Occupational Status Group

	January	February	March	April	May	June	July	August	September	October	November
Family business/self-employed											
2016-2019, mean n	12	13	14	16	13	13	12	11	13	12	13
2020, n	14	9	10	8	9	14	12	7	16	16	18
Difference-in-difference (95% CI) ^a				-6 (-15 to 3)	-2 (-11 to 7)	3 (-6 to 12)	2 (-7 to 11)	-2 (-11 to 7)	5 (-4 to 14)	6 (-2 to 15)	7 (-2 to 15)
Employee											
2016-2019, mean n	80	83	85	81	93	72	85	90	81	81	82
2020, n	93	65	92	63	93	86	124	118	123	175	131
Difference-in-difference (95% CI) ^a				-19 (-53 to 16)	-1 (-36 to 34)	13 (-21 to 48)	38 (3 to 73)	27 (-8 to 62)	41 (6 to 76)	93 (60 to 125)	48 (15 to 81)
Student											
2016-2019, mean n	39	34	38	41	37	33	35	35	33	36	29
2020, n	60	48	38	28	30	42	40	96	70	54	58
Difference-in-difference (95% CI) ^a				-25 (-48 to -1)	-18 (-42 to 5)	-3 (-26 to 21)	-7 (-30 to 17)	50 (26 to 73)	25 (2 to 49)	6 (-18 to 31)	17 (-7 to 42)
Homemaker											
2016-2019, mean n	89	77	86	91	98	91	96	80	81	79	79
2020, n	54	59	71	73	77	69	105	105	89	141	95
Difference-in-difference (95% CI) ^a				4 (-31 to 39)	2 (-34 to 37)	1 (-35 to 36)	32 (-3 to 67)	47 (12 to 82)	31 (-5 to 66)	85 (50 to 120)	38 (4 to 73)
Unemployed											
2016-2019, mean n	264	248	295	284	299	281	272	252	260	248	265
2020, n	235	207	242	221	226	244	302	285	302	368	278
Difference-in-difference (95% CI) ^a				-22 (-82 to 37)	-32 (-92 to 27)	4 (-56 to 63)	70 (11 to 130)	74 (14 to 134)	83 (23 to 142)	161 (100 to 223)	54 (-8 to 115)
N=1225 suicides with missing data on occupational status were not included in the analyses.											

^a Subtraction of differences in January through April from differences in April through September.
Negative values represent fewer suicides in 2020 vs 2016-2019.

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eTable 3. Observed and Expected Monthly Suicide Rates Among Men in 2020 Based on Trends From 2011 to 2019 Stratified by Age

	January	February	March	April	May	June	July	August	September	October	November
Total											
Yearly change 2011-2019, % (95% CI)	-5.5 (-7.1 to -3.8)	-5.1 (-6.1 to -4.1)	-4.7 (-6 to -3.4)	-5.7 (-7.3 to -4.1)	-6.7 (-9.3 to -4.1)	-6.5 (-8.3 to -4.8)	-5.4 (-6.8 to -4.1)	-5.5 (-6.9 to -4.2)	-4.9 (-6.6 to -3.2)	-5.6 (-7.1 to -4.1)	-5 (-6.5 to -3.5)
Observed rate in 2020	1.77	1.49	1.85	1.54	1.59	1.57	1.77	1.87	1.88	2.03	1.85
Expected rate in 2020 (95% CI)	1.59 (1.4 - 1.82)	1.49 (1.37 - 1.61)	1.84 (1.66 - 2.04)	1.65 (1.46 - 1.87)	1.68 (1.37 - 2.07)	1.53 (1.33 - 1.75)	1.6 (1.44 - 1.79)	1.53 (1.38 - 1.71)	1.62 (1.42 - 1.85)	1.56 (1.39 - 1.76)	1.5 (1.33 - 1.69)
Observed vs expected rate ratio (95% CI)	1.11 (1.04 - 1.17)	1 (0.94 - 1.07)	1.01 (0.95 - 1.07)	0.93 (0.88 - 0.99)	0.95 (0.89 - 1.01)	1.03 (0.96 - 1.09)	1.11 (1.04 - 1.17)	1.22 (1.15 - 1.29)	1.16 (1.09 - 1.23)	1.3 (1.23 - 1.37)	1.24 (1.17 - 1.31)
<30 y											
Yearly change 2011-2019, % (95% CI)	-2.8 (-4.8 to -0.8)	-2.3 (-5.9 to 1.2)	-4.6 (-7.2 to -2)	-4.8 (-8 to -1.6)	-6.2 (-8.2 to -4.2)	-3.6 (-6.5 to -0.6)	-4.2 (-7 to -1.5)	-3.3 (-4.9 to -1.7)	-3.8 (-7.7 to 0.1)	-3.8 (-6.6 to -0.9)	-4.6 (-6.4 to -2.8)
Observed rate in 2020	0.96	0.75	0.89	0.82	0.84	0.78	1.03	1.22	1.33	1.07	1
Expected rate in 2020 (95% CI)	0.85 (0.73 - 1)	0.78 (0.59 - 1.03)	0.85 (0.69 - 1.05)	0.82 (0.63 - 1.06)	0.77 (0.66 - 0.9)	0.81 (0.64 - 1.03)	0.77 (0.62 - 0.95)	0.79 (0.7 - 0.9)	0.79 (0.58 - 1.08)	0.77 (0.61 - 0.96)	0.67 (0.58 - 0.78)
Observed vs expected rate ratio (95% CI)	1.13 (0.96 - 1.3)	0.96 (0.8 - 1.13)	1.04 (0.88 - 1.21)	1.01 (0.84 - 1.17)	1.08 (0.91 - 1.26)	0.96 (0.79 - 1.12)	1.34 (1.14 - 1.54)	1.54 (1.33 - 1.75)	1.68 (1.46 - 1.89)	1.4 (1.2 - 1.61)	1.48 (1.26 - 1.71)
30-49 y											

Yearly change 2011-2019, % (95% CI)	-5.3 (-8 to -2.5)	-5.4 (-7 to -3.8)	-5.2 (-7.1 to -3.3)	-5 (-7 to -3.1)	-6.4 (-9.9 to -2.9)	-6 (-8 to -4.1)	-4.2 (-6.5 to -1.9)	-6.4 (-8.5 to -4.2)	-3.5 (-5.5 to -1.4)	-5.7 (-7.7 to -3.8)	-4.8 (-6.8 to -2.8)
Observed rate in 2020	1.96	1.67	2.22	1.43	1.88	1.69	1.95	1.98	1.96	2.53	2.15
Expected rate in 2020 (95% CI)	1.91 (1.53 - 2.39)	1.68 (1.48 - 1.91)	2.01 (1.73 - 2.33)	1.9 (1.63 - 2.21)	1.9 (1.44 - 2.5)	1.69 (1.45 - 1.97)	1.82 (1.52 - 2.18)	1.66 (1.4 - 1.96)	1.85 (1.58 - 2.18)	1.74 (1.49 - 2.04)	1.69 (1.44 - 1.98)
Observed vs expected rate ratio (95% CI)	1.02 (0.91 - 1.14)	0.99 (0.87 - 1.11)	1.11 (0.99 - 1.22)	0.76 (0.66 - 0.85)	0.99 (0.88 - 1.1)	1 (0.88 - 1.12)	1.07 (0.95 - 1.19)	1.2 (1.07 - 1.33)	1.06 (0.94 - 1.17)	1.46 (1.32 - 1.6)	1.27 (1.14 - 1.4)
50-69 y											
Yearly change 2011-2019, % (95% CI)	-7.6 (-9 to -6.3)	-7.4 (-9.6 to -5.3)	-5.4 (-6.9 to -3.9)	-8.1 (-10.9 to -5.3)	-7.6 (-11 to -4.2)	-8.6 (-11.2 to -5.9)	-6.7 (-9 to -4.3)	-6.9 (-8.6 to -5.3)	-6.4 (-8.5 to -4.4)	-7 (-9.6 to -4.3)	-5.6 (-7.8 to -3.4)
Observed rate in 2020	2.11	1.94	2.25	1.95	1.66	1.79	1.86	2.01	1.94	2.29	2.08
Expected rate in 2020 (95% CI)	1.85 (1.66 - 2.06)	1.7 (1.44 - 2.02)	2.34 (2.07 - 2.64)	1.86 (1.49 - 2.33)	2.05 (1.57 - 2.69)	1.72 (1.4 - 2.13)	1.9 (1.58 - 2.28)	1.7 (1.49 - 1.94)	1.85 (1.58 - 2.18)	1.81 (1.47 - 2.23)	1.81 (1.52 - 2.15)
Observed vs expected rate ratio (95% CI)	1.14 (1.02 - 1.27)	1.14 (1.01 - 1.26)	0.96 (0.86 - 1.06)	1.05 (0.93 - 1.17)	0.81 (0.71 - 0.91)	1.04 (0.92 - 1.16)	0.98 (0.87 - 1.09)	1.18 (1.05 - 1.31)	1.05 (0.93 - 1.16)	1.27 (1.14 - 1.4)	1.15 (1.03 - 1.27)
≥70 y											
Yearly change 2011-	-4.3 (-7.1 to -1.5)	-2.9 (-7 to 1.2)	-3 (-5.9 to -0.2)	-4 (-4.9 to -3.1)	-6.5 (-8.7 to -4.3)	-6.8 (-9.1 to -4.5)	-6.8 (-8.8 to -4.7)	-4.9 (-6.1 to -3.6)	-6.2 (-8.6 to -3.9)	-5.7 (-8.2 to -3.1)	-5.8 (-7.4 to -4.2)

2019, % (95% CI)												
Observed rate in 2020	2.16	1.72	2.16	2.15	2.17	2.25	2.5	2.47	2.43	2.38	2.36	
Expected rate in 2020 (95% CI)	1.88 (1.51 - 2.35)	1.98 (1.44 - 2.74)	2.36 (1.88 - 2.95)	2.27 (2.11 - 2.44)	2.19 (1.84 - 2.62)	2.07 (1.72 - 2.49)	2.08 (1.76 - 2.44)	2.21 (2.01 - 2.44)	2.13 (1.77 - 2.57)	2.1 (1.72 - 2.58)	1.97 (1.73 - 2.23)	
Observed vs expected rate ratio (95% CI)	1.15 (1.01 - 1.29)	0.87 (0.75 - 0.99)	0.92 (0.8 - 1.03)	0.95 (0.83 - 1.07)	0.99 (0.87 - 1.11)	1.08 (0.95 - 1.22)	1.2 (1.06 - 1.34)	1.12 (0.99 - 1.25)	1.14 (1.01 - 1.27)	1.13 (1 - 1.26)	1.2 (1.06 - 1.34)	
Rates are shown in suicides per 100,000 person-years. N = 602 suicides with missing data on age were not included in the age-specific analyses.												

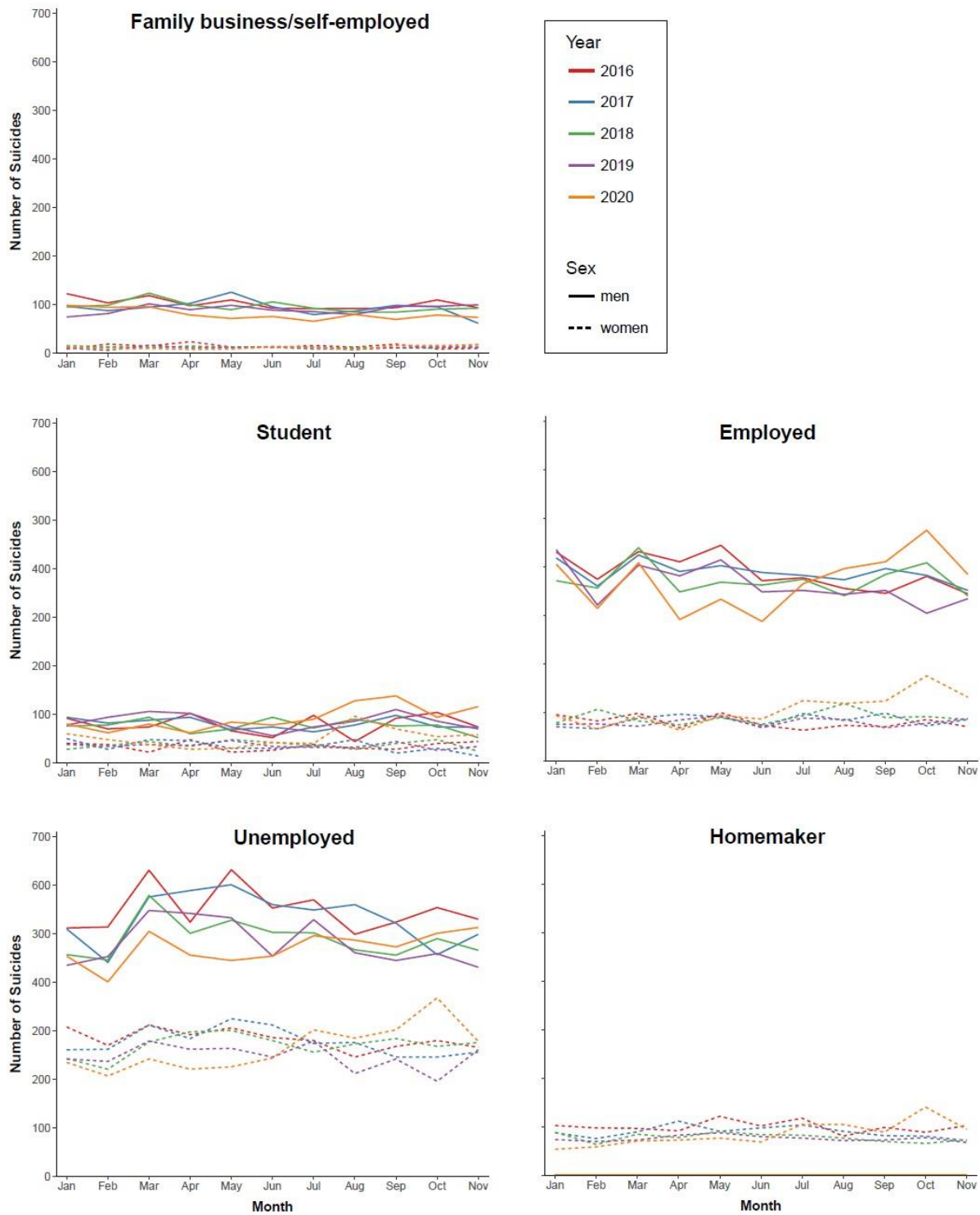
eTable 4. Observed and Expected Monthly Suicide Rates Among Women in 2020 Based on Trends From 2011 to 2019 Stratified by Age

	January	February	March	April	May	June	July	August	September	October	November
Total											
Yearly change 2011-2019, % (95% CI)	-5.7 (-7.3 to -4.2)	-4.3 (-5.6 to -2.9)	-4.9 (-6.6 to -3.2)	-5.1 (-7.1 to -3)	-7.2 (-10.2 to -4.3)	-6.8 (-9.4 to -4.3)	-6.4 (-8.5 to -4.4)	-6.5 (-9.3 to -3.7)	-6.1 (-7.5 to -4.7)	-6.2 (-8.2 to -4.2)	-4.4 (-6.6 to -2.2)
Observed rate in 2020	0.71	0.61	0.74	0.63	0.7	0.75	0.96	0.98	0.97	1.28	0.96
Expected rate in 2020 (95% CI)	0.66 (0.59 - 0.75)	0.66 (0.59 - 0.73)	0.75 (0.65 - 0.85)	0.73 (0.62 - 0.86)	0.71 (0.57 - 0.9)	0.66 (0.54 - 0.81)	0.7 (0.59 - 0.82)	0.66 (0.53 - 0.83)	0.67 (0.6 - 0.75)	0.65 (0.55 - 0.76)	0.69 (0.58 - 0.83)
Observed vs expected rate ratio (95% CI)	1.08 (0.98 - 1.18)	0.92 (0.83 - 1.01)	0.99 (0.9 - 1.08)	0.87 (0.78 - 0.95)	0.99 (0.89 - 1.08)	1.13 (1.03 - 1.23)	1.38 (1.27 - 1.49)	1.48 (1.36 - 1.6)	1.44 (1.33 - 1.56)	1.97 (1.84 - 2.11)	1.38 (1.27 - 1.49)
<30 y											
Yearly change 2011-2019, % (95% CI)	-4.7 (-8.4 to -1)	-0.2 (-4.8 to 4.4)	-2.7 (-6.2 to 0.8)	-1.8 (-5.7 to 2.1)	-6.8 (-14.5 to 0.8)	-8.2 (-15.9 to -0.5)	-1.4 (-7.3 to 4.5)	-3.5 (-7.4 to 0.4)	-4.8 (-9.6 to 0)	-3 (-6.9 to 0.8)	-4 (-8.8 to 0.8)
Observed rate in 2020	0.43	0.46	0.46	0.32	0.36	0.48	0.59	0.72	0.69	0.74	0.58
Expected rate in 2020 (95% CI)	0.32 (0.24 - 0.43)	0.36 (0.25 - 0.52)	0.39 (0.3 - 0.51)	0.4 (0.3 - 0.55)	0.32 (0.17 - 0.58)	0.28 (0.15 - 0.51)	0.4 (0.25 - 0.64)	0.35 (0.25 - 0.47)	0.35 (0.24 - 0.51)	0.35 (0.25 - 0.47)	0.31 (0.22 - 0.46)
Observed vs expected rate ratio (95% CI)	1.35 (1.04 - 1.67)	1.27 (0.98 - 1.56)	1.18 (0.91 - 1.44)	0.79 (0.57 - 1)	1.12 (0.83 - 1.41)	1.76 (1.37 - 2.15)	1.48 (1.18 - 1.77)	2.1 (1.72 - 2.47)	2.01 (1.64 - 2.38)	2.14 (1.76 - 2.52)	1.83 (1.46 - 2.2)

30-49 y												
Yearly change 2011-2019, % (95% CI)	-5.7 (-8 to -3.4)	-3.4 (-6.4 to -0.4)	-6 (-8.6 to -3.3)	-6.6 (-9.1 to -4.1)	-8.5 (-12.8 to -4.1)	-5.9 (-10.1 to -1.7)	-8.5 (-10.2 to -6.8)	-7.1 (-9.9 to -4.2)	-5.5 (-7.4 to -3.7)	-5.8 (-9.6 to -2)	-4.9 (-9 to -0.8)	
Observed rate in 2020	0.73	0.59	0.78	0.62	0.68	0.77	0.91	1.07	1.11	1.54	1.13	
Expected rate in 2020 (95% CI)	0.69 (0.58 - 0.83)	0.7 (0.55 - 0.89)	0.72 (0.59 - 0.89)	0.65 (0.54 - 0.8)	0.67 (0.47 - 0.95)	0.71 (0.51 - 0.99)	0.62 (0.55 - 0.71)	0.69 (0.55 - 0.86)	0.71 (0.61 - 0.82)	0.67 (0.5 - 0.91)	0.68 (0.49 - 0.94)	
Observed vs expected rate ratio (95% CI)	1.05 (0.86 - 1.24)	0.84 (0.67 - 1.01)	1.08 (0.89 - 1.26)	0.95 (0.76 - 1.13)	1.01 (0.82 - 1.2)	1.09 (0.9 - 1.28)	1.45 (1.22 - 1.69)	1.56 (1.32 - 1.79)	1.57 (1.34 - 1.8)	2.3 (2.01 - 2.58)	1.66 (1.41 - 1.9)	
50-69 y												
Yearly change 2011-2019, % (95% CI)	-6.6 (-9.3 to -3.9)	-5.5 (-7.1 to -3.8)	-5.5 (-6.4 to -4.7)	-5.1 (-7.6 to -2.6)	-5.8 (-8.4 to -3.2)	-8.2 (-9.6 to -6.7)	-6.3 (-8.7 to -4)	-7.2 (-10.9 to -3.5)	-6.7 (-8.4 to -5)	-6.7 (-8.7 to -4.7)	-5 (-7.5 to -2.5)	
Observed rate in 2020	0.81	0.61	0.91	0.77	0.8	0.78	1.17	1.05	1.04	1.42	1.1	
Expected rate in 2020 (95% CI)	0.77 (0.62 - 0.95)	0.77 (0.68 - 0.88)	0.87 (0.81 - 0.93)	0.86 (0.7 - 1.05)	0.91 (0.74 - 1.12)	0.71 (0.63 - 0.79)	0.85 (0.71 - 1.03)	0.73 (0.55 - 0.99)	0.72 (0.63 - 0.82)	0.75 (0.64 - 0.88)	0.79 (0.65 - 0.97)	
Observed vs expected rate ratio (95% CI)	1.05 (0.87 - 1.23)	0.79 (0.63 - 0.94)	1.05 (0.88 - 1.21)	0.9 (0.75 - 1.06)	0.88 (0.73 - 1.03)	1.1 (0.91 - 1.29)	1.38 (1.18 - 1.57)	1.43 (1.22 - 1.65)	1.45 (1.23 - 1.67)	1.89 (1.65 - 2.14)	1.39 (1.18 - 1.59)	
≥70 y												

Yearly change 2011-2019, % (95% CI)	-5.9 (-8.2 to -3.6)	-6.5 (-8.6 to -4.4)	-4.8 (-8.3 to -1.4)	-6.2 (-8.5 to -4)	-8.5 (-10.4 to -6.7)	-6.6 (-9.1 to -4.2)	-8 (-11.5 to -4.5)	-7.7 (-11 to -4.3)	-7.7 (-11.7 to -3.6)	-8.4 (-10.8 to -6)	-4.7 (-6.6 to -2.7)
Observed rate in 2020	0.9	0.76	0.81	0.83	0.98	0.96	1.19	1.09	1.05	1.41	1.02
Expected rate in 2020 (95% CI)	0.87 (0.73 - 1.05)	0.78 (0.66 - 0.92)	1.02 (0.78 - 1.34)	1 (0.84 - 1.19)	0.95 (0.83 - 1.1)	0.96 (0.79 - 1.17)	0.9 (0.68 - 1.19)	0.88 (0.67 - 1.14)	0.91 (0.66 - 1.25)	0.81 (0.67 - 0.98)	0.98 (0.84 - 1.14)
Observed vs expected rate ratio (95% CI)	1.03 (0.86 - 1.2)	0.98 (0.8 - 1.15)	0.79 (0.66 - 0.93)	0.83 (0.69 - 0.97)	1.02 (0.86 - 1.18)	1 (0.84 - 1.16)	1.32 (1.13 - 1.51)	1.24 (1.06 - 1.43)	1.15 (0.98 - 1.32)	1.74 (1.51 - 1.97)	1.04 (0.88 - 1.2)
Rates are shown in suicides per 100,000 person-years. N = 116 individuals who died of suicide with missing data on age were not included in the age-specific analyses.											

eFigure 1. Observed and Expected Monthly Number of Individuals Who Died of Suicide in January Through November, 2011 to 2020, by Occupational Status Category



eFigure 2. Observed and Expected Monthly Suicide Rates in January to November, 2011 to 2020, in All Ages

Light colored areas represent 95% CI for expected suicide rates and dots represent the observed rates

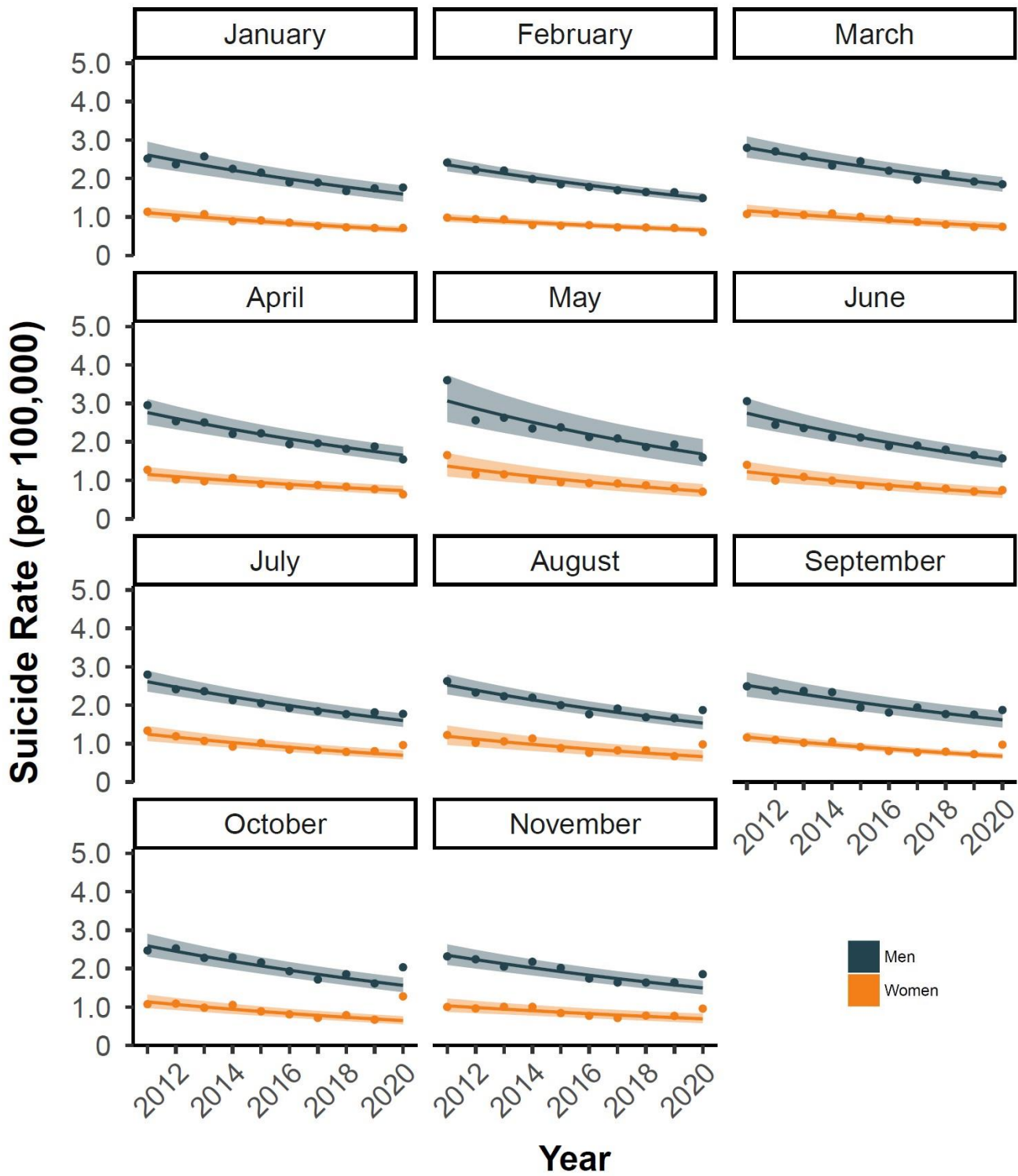


Figure 3. Observed and Expected Monthly Suicide Rates in January to November, 2011 to 2020, Among Individuals Aged Younger Than 30 Years
 Light colored areas represent 95% CI for expected suicide rates and dots represent the observed rates

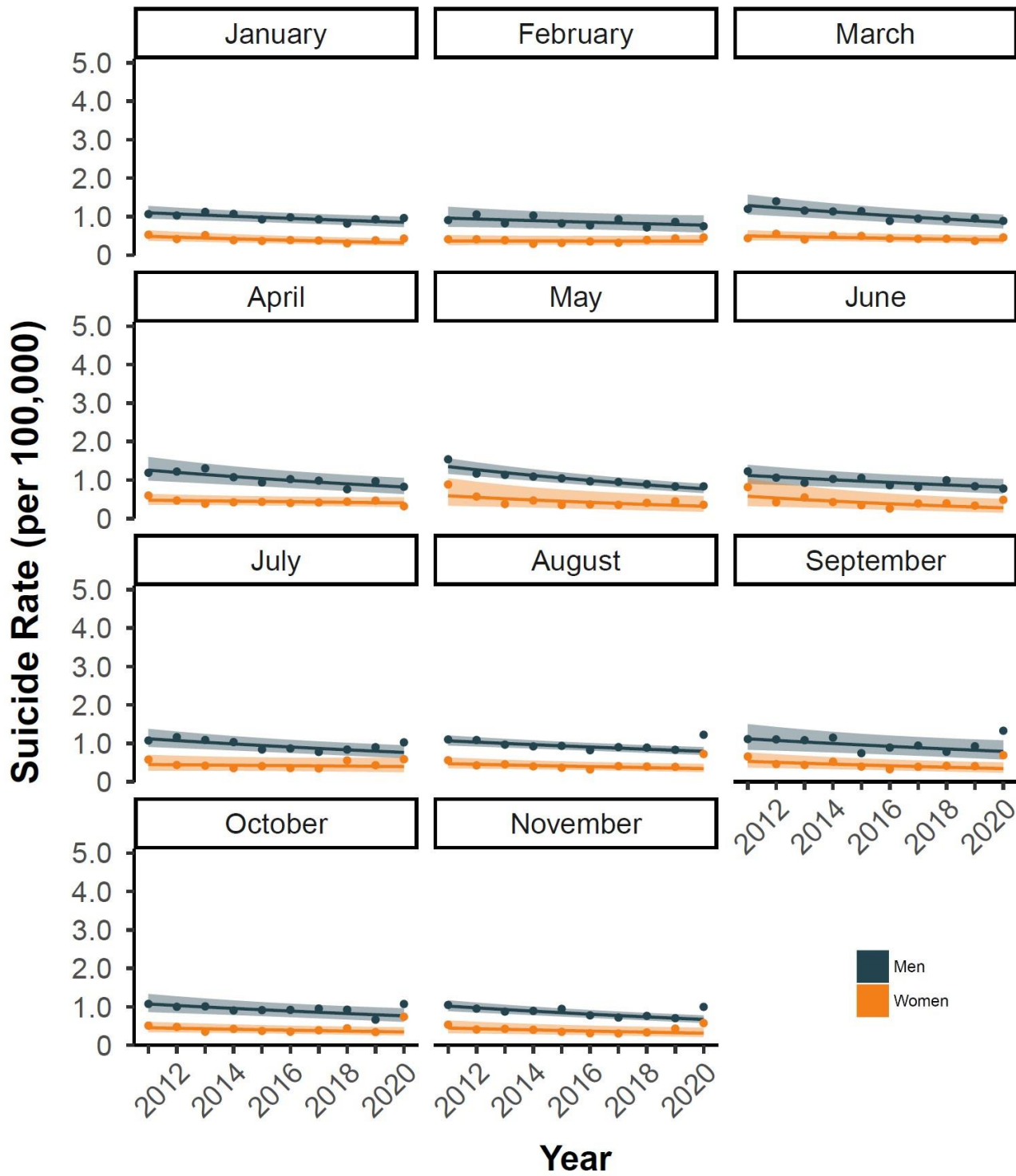


Figure 4. Observed and Expected Monthly Suicide Rates in January to November, 2011 to 2020, Among Individuals Aged 30 to 49 Years
 Light colored areas represent 95% CI for expected suicide rates and dots represent the observed rates

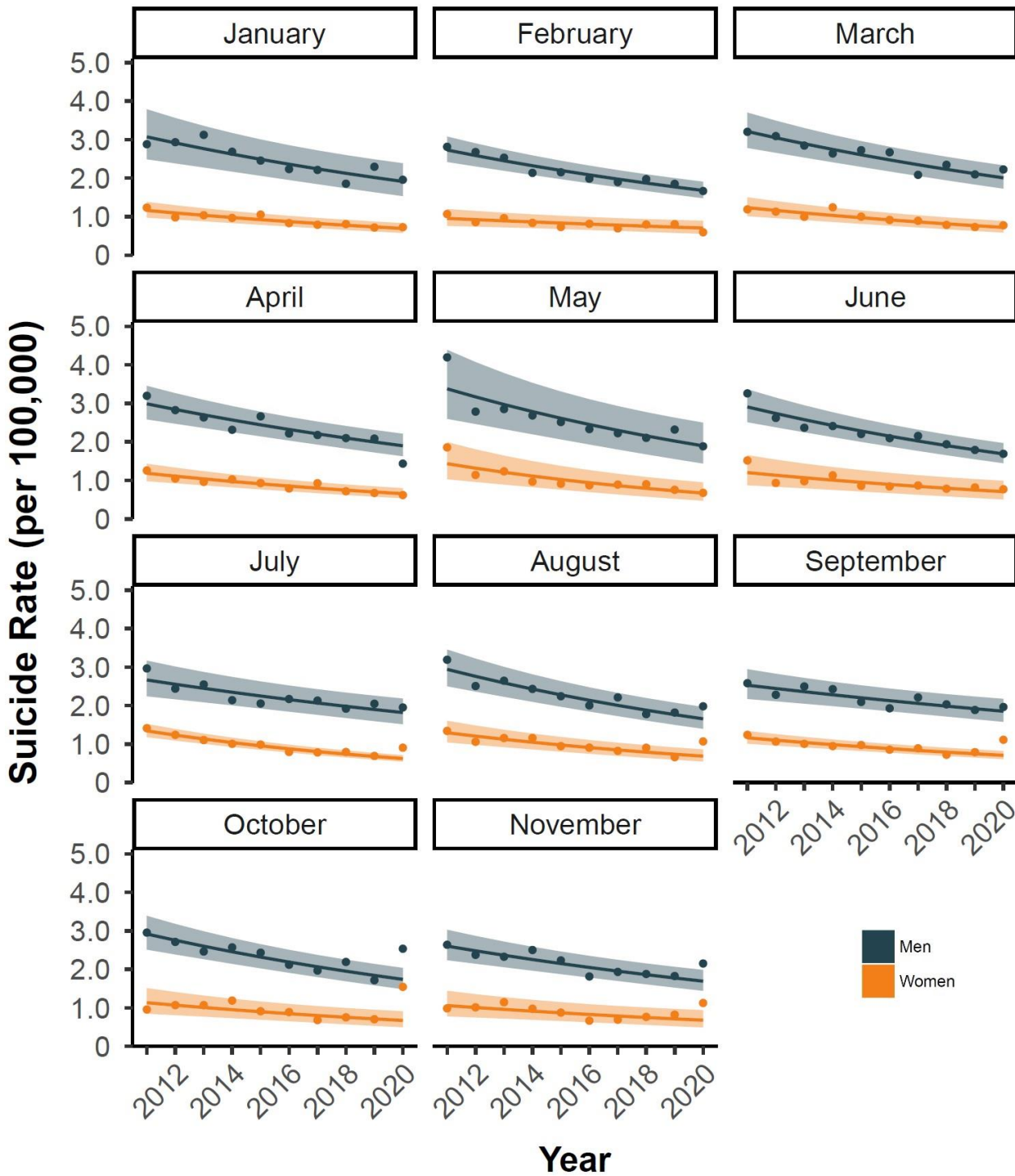


Figure 5. Observed and Expected Monthly Suicide Rates in January to November, 2011 to 2020, Among Individuals Aged 50 to 69 Years

Light colored areas represent 95% CI for expected suicide rates and dots represent the observed rates

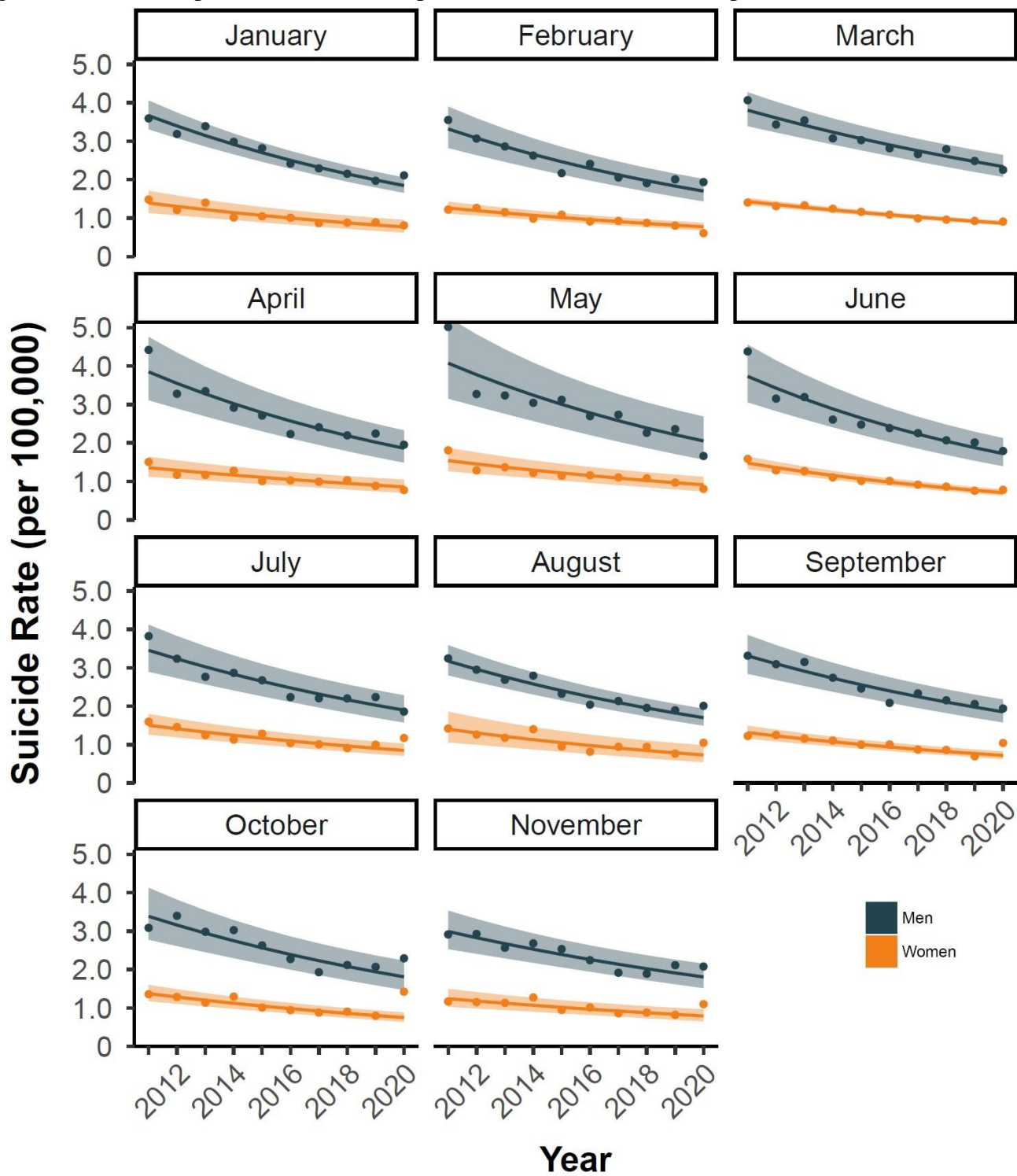


Figure 6. Observed and Expected Monthly Suicide Rates in January to November, 2011 to 2020, Among Individuals Aged 70 Years or Older
 Light colored areas represent 95% CI for predicted suicide rates and dots represent the observed rates

