

TABLE S1. ICD-9 Codes of Diagnostic Groups and Self-Harm Methods

<i>Diagnostic Group</i>	<i>ICD-9-Codes</i>
Depressive disorders	296.2x, 296.3x, 296.82, 298.0, 300.4, 311
Alcohol use disorders	291, 303, 305
Drug use disorders	292, 304
Schizophrenia	295.00-295.99
Bipolar disorders	296.0x, 296.1x, 296.4x, 296.5x, 296.6x, 296.7x, 296.8x (other than 296.82)
Anxiety disorders	300.0x, 300.2x, 300.3, 308.3, 309.81, 293.84, 300.00- 300.02, 300.09, 300.20- 300.23, 300.29, 300.3, 300.7, 308.0-308.9, 309.21, 309.81, 312.39, 313.0, 313.21, 313.23
Personality disorders	301
Other mental disorders	290-319 not included in other diagnostic groups
<i>Deliberate self-harm method</i>	<i>ICD-9-Codes</i>
Violent	
Firearm	E955.0-955.5, E955.9
Other violent	E954; E953.0-.9; E957.0-.9; E958.1, E958.2, E958.3, E958.5, E958.6, E958.7
Non-violent	
Poisoning	E950.0-E952.9
Cutting	E956
Other	E955.6, E955.7, E958.0, E958.4, E958.8, E958.9

Diagnostic groups define diagnostic categories. Substance use disorders in all tables defined as alcohol use disorders and/or drug use disorders. At least on inpatient or at least two outpatient codes with diagnostic group was required during 180 days prior to self-harm event for diagnostic groups.

TABLE S2. Background characteristics of male and female adult Medicaid patients treated for non-fatal deliberate self-harm

Characteristic	Total (N=61,297) %	Males (N=20271) %	Females (N=41024) %	Chi square, p- value
Age, years				96.4 (<.0001)
18-34	50.7	48.6	51.7	
35-44	27.0	26.9	27.1	
45-64	22.3	24.5	21.2	
Race/Ethnicity				33.1 (<.0001)
White, non-Hispanic*	78.0	79.2	77.4	
Black, non-Hispanic	14.4	14.0	14.6	
Hispanic	7.6	6.8	8.0	
Recent mental health treatment**				
Depression	38.2	34.3	40.1	193.1 (<.0001)
Bipolar disorder	17.5	14.0	19.3	255.8 (<.0001)
Anxiety disorder	21.1	16.2	23.5	444.8 (<.0001)
Schizophrenia	16.2	23.4	12.7	1152.1 (<.0001)
Alcohol use disorder	37.2	43.3	34.1	488.8 (<.0001)
Drug use disorder	14.7	18.0	13.1	260.7 (<.0001)
Personality disorder	11.6	9.4	12.7	144.8 (<.0001)
Other mental disorder	5.2	5.9	4.8	32.3 (<.0001)
Comorbid substance and other mental disorder diagnosis	34.9	39.4	32.6	272.9 (<.0001)
Recent inpatient mental health care**	23.5	27.2	21.7	228.6 (<.0001)
Recent outpatient mental health care**	56.3	56.6	56.2	1.3 (0.26)
Self-harm treatment setting				5.1 (0.08)
Outpatient	26.1	26.6	25.8	
Emergency department	42.5	42.66	42.5	
Inpatient	31.4	30.9	31.6	
Any recent outpatient care	92.3	89.3	93.7	380.2 (<.0001)
Deliberate self-harm method				
Violent method	3.7	6.5	2.3	12176.0 (<.0001)
Firearm	1.1	2.3	0.4	1653.5 (<.0001)
Other violent	2.6	4.2	1.9	
Non-violent method	86.6	79.9	89.8	
Poisoning	71.4	62.0	76.0	
Cutting	15.2	17.9	13.8	
Other	9.8	13.6	7.8	

\*Includes White, American Indian/Alaskan Native, Asian, Native Hawaiian/Other Pacific Islander, and more than one race

\*\*During 180 day period prior to index self-harm visit

TABLE S3. Method of completed suicide of patients with non-fatal deliberate self-harm who complete suicide within 1 year

Initial deliberate self-harm method	Same method used in suicide %	Different method used in suicide %
Total (n=243), %		
Firearm (n=31), %	93.55	6.45
Other violent method (n=23), %	86.96	13.04
Poisoning (n=138), %	63.04	36.96
Cutting (n=35), %	8.57	91.43
Other (n=9), %	0.00	100.00
Suicide method missing in seven deaths.		

TABLE S4. Cox proportional hazards regression models of death from suicide during year following deliberate self-harm event for adult Medicaid patients

Characteristic	Total Adjusted HR (95% CI)	Males Adjusted HR (95% CI)	Females Adjusted HR (95% CI)	Interaction P-value
<b>Sex</b>				
Male	2.0 (1.5, 2.7)	N/A	N/A	N/A
Female	1.0	N/A	N/A	N/A
<b>Age, years</b>				
18-34	1.0	1.0	1.0	N/A
35-44	1.9 (1.4, 2.8)	1.6 (1.0, 2.7)	2.3 (1.4, 3.9)	0.28
45-64	3.0 (2.2, 4.2)	2.7 (1.7, 4.2)	3.5 (2.1, 5.7)	0.48
<b>Race/Ethnicity</b>				
White, non-Hispanic*	1.0	1.0	1.0	N/A
Black, non-Hispanic	0.3 (0.2, 0.6)	0.3 (0.2, 0.8)	0.3 (0.1, 0.8)	0.99
Hispanic	0.9 (0.5, 1.8)	1.22 (0.5, 2.9)	0.69 (0.2, 1.9)	0.57
<b>Recent mental health treatment**</b>				
Depression	1.1 (0.8, 1.5)	1.3 (0.8, 2.0)	0.9 (0.6, 1.5)	0.33
Bipolar disorder	0.8 (0.5, 1.4)	0.8 (0.4, 1.6)	0.8 (0.4, 1.6)	0.39
Anxiety disorder	1.1 (0.8, 1.5)	0.9 (0.6, 1.5)	1.2 (0.8, 1.8)	0.21
Schizophrenia	1.0 (0.7, 1.5)	1.0 (0.6, 1.6)	1.2 (0.6, 2.1)	0.21
Alcohol use disorder	0.8 (0.6, 1.0)	0.8 (0.5, 1.2)	0.8 (0.5, 1.2)	0.29
Drug use disorder	1.1 (0.8, 1.6)	0.8 (0.4, 1.3)	1.7 (1.0, 2.8)	0.004
Personality disorder	1.0 (0.7, 1.5)	0.9 (0.4, 1.8)	1.0 (0.6, 1.8)	0.18
Other mental disorder	0.8 (0.3, 1.8)	0.6 (0.2, 1.9)	1.0 (0.3, 3.5)	0.70
Recent inpatient mental health care**	1.5 (1.0, 2.0)	1.2 (0.7, 1.9)	1.9 (1.1, 3.0)	0.01
<b>Self-harm treatment setting</b>				
Outpatient	1.0	1.0	1.0	N/A
Emergency department	1.3 (0.9, 1.9)	1.4 (0.9, 2.4)	1.2 (0.7, 2.1)	0.92
Inpatient	1.5 (1.1, 2.2)	1.7 (1.0, 2.8)	1.3 (0.8, 2.3)	0.85
Any recent outpatient care**	1.3 (0.7, 2.4)	1.4 (0.6, 3.1)	1.2 (0.4, 3.8)	0.86
<b>Deliberate self-harm method</b>				
Violent method	6.8 (4.8, 9.4)	7.3 (4.9, 10.9)	4.8 (2.5, 9.4)	0.26
Firearm	13.7 (8.8, 21.3)	13.2 (7.8, 22.4)	15.3 (6.6, 35.9)	0.91
Other violent method	4.4 (2.7, 7.1)	5.8 (3.3, 10.1)	2.2 (0.8, 6.2)	0.13
Non-violent method	1.0	1.0	1.0	N/A
Poisoning	1.0	1.0	1.0	N/A
Cutting	1.2 (0.8, 1.8)	1.7 (1.0, 2.8)	0.8 (0.4, 1.5)	0.10
Other	0.3 (0.1, 0.8)	0.2 (0.1, 0.9)	0.4 (0.1, 1.4)	0.39
Other	0.3 (0.1, 0.8)	0.3 (0.1, 1.1)	0.4 (0.1, 1.3)	0.49

Adjusted HRs are from a single model that also controls for geographic region.

\*Includes White, American Indian/Alaskan Native, Asian, Native Hawaiian/Other Pacific Islander, and more than one race \*\*During 180 days prior to the date of the index deliberate self-harm event.

TABLE S5. Multinomial logistic regression models of timing of suicide death following non-fatal deliberate self-harm event for adult Medicaid patients

Characteristic	Suicide First 30 days (Reference: No Suicide) OR (95% CI)	Suicide Day 31-365 (Reference: No Suicide) OR (95% CI)	Suicide First 30 days (Reference: Suicide 31-365 Days) OR (95% CI)
<b>Sex</b>			
Male	2.8 (1.8, 4.5)	1.6 (1.1, 2.2)	1.6 (0.8, 3.2)
Female	1.0	1.0	1.0
<b>Age, years</b>	1.0	1.0	1.0
18-34	2.1 (1.2, 3.5)	1.9 (1.2, 3.0)	1.3 (0.6, 3.1)
35-44	2.8 (1.6, 4.6)	3.2 (2.1, 5.0)	1.0 (0.4, 2.2)
45-64			
<b>Race/Ethnicity</b>	1.0	1.0	1.0
White, non-Hispanic*	0.2 (0.1, 0.6)	0.4 (0.2, 0.9)	0.4 (0.1, 2.2)
Black, non-Hispanic	1.6 (0.7, 3.8)	0.5 (0.1, 1.5)	2.2 (0.4, 13.6)
Hispanic			
<b>Recent mental health treatment**</b>	1.1 (0.7, 1.8)	1.1 (0.7, 1.7)	1.1 (0.5, 2.4)
Depression	0.9 (0.4, 1.8)	0.8 (0.5, 1.6)	1.1 (0.3, 3.4)
Bipolar disorder	0.6 (0.3, 1.1)	1.4 (0.9, 2.1)	0.5 (0.2, 1.2)
Anxiety disorder	0.8 (0.4, 1.5)	1.3 (0.8, 2.1)	0.7 (0.3, 1.8)
Schizophrenia	0.7 (0.4, 1.1)	0.8 (0.6, 1.2)	0.9 (0.4, 1.9)
Alcohol use disorder	0.7 (0.4, 1.4)	1.4 (0.9, 2.3)	0.8 (0.3, 2.0)
Drug use disorder	1.0 (0.5, 2.1)	1.0 (0.6, 1.7)	0.9 (0.3, 2.6)
Personality disorder	0.7 (0.2, 2.3)	0.8 (0.2, 2.7)	0.5 (0.1, 5.2)
Other mental disorder			
<b>Recent inpatient mental health care**</b>	1.4 (0.8, 2.5)	1.5 (1.0, 2.4)	1.2 (0.5, 2.8)
<b>Self-harm treatment setting</b>			
Outpatient	1.0	1.0	1.0
Emergency department	1.8 (1.0, 3.3)	1.0 (0.6, 1.6)	1.3 (0.5, 3.2)
Inpatient	2.5 (1.4, 4.4)	1.0 (0.6, 1.6)	1.9 (0.8, 5.0)
<b>Any recent outpatient care**</b>	2.0 (0.7, 5.6)	0.9 (0.4, 2.1)	2.0 (0.4, 9.7)
<b>Deliberate self-harm method</b>			
Violent method	17.5 (11.2, 27.3)	1.7 (0.8, 3.5)	10.0 (3.9, 25.5)
Firearm	33.1 (18.8, 58.1)	2.5 (0.8, 8.1)	11.0 (2.9, 41.7)
Other violent method	11.0 (6.0, 20.2)	1.5 (0.6, 3.7)	8.4 (2.4, 30.2)
Non-violent method	1.0	1.0	1.0
Poisoning	1.0	1.0	1.0
Cutting	1.2 (0.6, 2.4)	1.2 (0.8, 2.0)	0.8 (0.3, 2.3)
Other	0.7 (0.2, 2.2)	0.2 (0.0, 0.7)	4.7 (0.5, 45.6)
Other	0.7 (0.2, 2.2)	0.2 (0.0, 0.7)	4.5 (0.4, 43.0)

Adjusted ORs are from single multinomial logistic models that also controls for geographic region.

\*Includes White, American Indian/Alaskan Native, Asian, Native Hawaiian/Other Pacific Islander, and more than one race \*\*During 180 days prior to the index deliberate self-harm code.