

U.S., Age-standardized								INCIDENCE												
Source:	FIREARMS WISQARS							MENTAL DISORDERS												
	All Firearm	Homicide	%	Suicide	%	Uninten	%	IHME								All	Cat			
								Category titles are listed below									1	2	3	
Rates	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12
1990	14.51	6.11	42%	7.61	52%	0.55	4%	5,253	24.1	754.7	113.4	13.4	51.9	188.5	3850.0	14515.8	435.9	5241.2		
1991	14.82	6.64	45%	7.39	50%	0.57	4%	5,419	24.3	754.6	115.5	13.4	51.9	186.3	4008.2	14650.4	439.4	5241.6		
1992	14.46	6.5	45%	7.15	49%	0.54	4%	5,586	24.5	756.0	117.5	13.4	51.8	184.3	4167.6	14785.1	442.6	5247.8		
1993	15	6.75	45%	7.34	49%	0.58	4%	5,749	24.6	758.7	119.1	13.5	51.8	182.8	4322.9	14913.8	445.3	5259.0		
1994	14.45	6.45	45%	7.18	50%	0.51	4%	5,903	24.8	762.5	120.4	13.5	51.8	181.8	4468.8	15031.5	447.3	5274.7		
1995	13.38	5.69	43%	6.99	52%	0.46	3%	6,041	24.8	767.2	121.1	13.5	51.8	181.5	4600.0	15132.3	448.4	5293.7		
1996	12.57	5.1	41%	6.79	54%	0.42	3%	6,216	24.8	787.8	121.6	13.5	51.8	181.8	4754.1	15329.7	448.9	5452.5		
1997	11.84	4.77	40%	6.48	55%	0.36	3%	6,450	24.8	829.8	122.0	13.6	51.8	182.3	4946.2	15667.2	449.1	5800.8		
1998	11.09	4.21	38%	6.34	57%	0.31	3%	6,690	24.8	878.1	122.3	13.6	51.8	183.0	5137.6	16040.3	449.3	6209.0		
1999	10.3	3.82	37%	5.96	58%	0.29	3%	6,882	24.8	917.9	122.4	13.6	51.8	183.6	5290.0	16344.4	449.5	6547.9		
2000	10.1	3.78	37%	5.88	58%	0.27	3%	6,973	24.8	934.4	122.5	13.7	51.8	183.8	5365.1	16476.6	449.9	6688.4		
2001	10.3	3.93	38%	5.9	57%	0.28	3%	6,980	24.9	928.4	122.7	13.7	51.8	183.7	5377.4	16445.3	451.4	6636.5		
2002	10.4	4.07	39%	5.92	57%	0.26	2%	6,963	25.0	914.0	123.0	13.7	51.8	183.2	5373.4	16348.5	454.2	6510.1		
2003	10.3	4.07	40%	5.77	56%	0.25	2%	6,936	25.2	895.6	123.4	13.7	51.8	182.6	5362.5	16217.9	457.4	6347.8		
2004	10.0	3.94	39%	5.65	57%	0.22	2%	6,911	25.3	877.9	123.7	13.7	51.8	182.1	5353.9	16090.4	460.2	6188.5		
2005	10.3	4.17	41%	5.66	55%	0.27	3%	6,902	25.4	865.2	123.7	13.7	51.8	181.8	5357.1	15998.5	461.7	6070.7		
2006	10.2	4.27	42%	5.54	54%	0.21	2%	6,918	25.4	859.3	123.6	14.0	51.8	181.8	5377.7	15953.8	462.0	6000.6		
2007	10.2	4.2	41%	5.63	55%	0.2	2%	6,949	25.4	857.3	123.5	14.6	51.9	181.8	5409.2	15933.6	462.1	5950.4		
2008	10.2	4.03	39%	5.82	57%	0.19	2%	6,983	25.5	856.6	123.3	15.3	52.0	181.9	5442.5	15921.6	461.8	5908.2		
2009	10.1	3.78	38%	5.91	59%	0.18	2%	7,008	25.5	854.8	123.1	15.8	52.0	182.0	5468.4	15899.8	461.3	5862.3		
2010	10.1	3.62	36%	6.06	60%	0.2	2%	7,013	25.5	849.5	123.0	16.1	52.0	182.1	5477.8	15853.1	460.5	5800.8		
2011	10.2	3.59	35%	6.16	61%	0.19	2%	6,958	25.4	836.2	122.9	16.1	52.0	184.0	5436.3	15748.3	458.5	5690.2		
2012	10.5	3.76	36%	6.29	60%	0.17	2%	6,842	25.1	816.1	122.7	16.1	52.0	188.1	5339.1	15586.9	455.0	5531.8		
2013	10.4	3.6	35%	6.38	61%	0.16	2%	6,703	24.9	794.4	122.6	16.1	52.0	192.9	5220.7	15413.4	450.6	5365.8		
2014	10.3	3.53	34%	6.36	62%	0.14	1%	6,581	24.6	776.7	122.5	16.1	52.0	197.0	5115.4	15268.3	446.1	5232.7		
2015	11.0	4.14	38%	6.5	59%	0.15	1%	6,515	24.4	768.1	122.5	16.0	52.0	198.6	5058.1	15193.9	442.4	5172.5		
2016	11.7	4.6	39%	6.72	57%	0.15	1%	6,506	24.1	768.1	124.1	16.1	51.9	198.6	5044.7	15197.5	436.4	5168.1		
2017	12.0	4.61	39%	6.93	58%	0.15	1%	6,508	23.8	771.6	125.7	16.3	51.8	198.6	5039.4	15217.0	431.8	5175.3		
2018	11.9	4.42	37%	7.02	59%	0.14	1%	6,526	23.8	788.8	125.7	16.4	51.9	198.6	5039.5	15355.2	431.9	5342.1		
2019	11.8	4.57	39%	6.83	58%	0.15	1%	6,569	23.8	822.1	125.7	16.5	52.3	198.6	5047.9	15654.9	433.7	5697.8		
2020	13.6	6.16	45%	6.93	51%	0.17	1%													

Pearson	All Firearm Deaths	Firearm Homicides	Firearm Suicides	FA Unint	All Firearm Deaths	Firearm Homicides	Firearm Suicides	FA Unint	Mental	Schizop	Anxiety	Attentic	Autism	Bipolar	Conduct	Depress	All Mental	Schizop	Anxiety
	1990-2019	1990-2019	1990-2019	1990-2019	-0.96	-0.42	-0.76	-0.82	-0.55	-0.73	-0.72	-0.37	-0.20	0.04	-0.96	-0.83	-0.61	-0.63	
	1995-2019	1995-2019	1995-2019	1995-2019	-0.93	-0.39	-0.80	-0.37	-0.63	-0.63	0.01	0.00	-0.07	0.31	-0.94	-0.65	-0.66	-0.55	
	2000-2019	2000-2019	2000-2019	2000-2019	-0.85	-0.61	-0.87	0.75	-0.93	-0.62	0.80	0.54	0.23	0.84	-0.87	-0.63	-0.92	-0.58	
	2005-2019	2005-2019	2005-2019	2005-2019	-0.84	-0.63	-0.86	0.82	-0.95	-0.67	0.82	0.49	0.06	0.83	-0.87	-0.66	-0.94	-0.61	
	2010-2019	2010-2019	2010-2019	2010-2019	-0.78	-0.89	-0.84	0.75	-0.95	-0.51	0.89	0.73	-0.18	0.78	-0.82	-0.50	-0.95	-0.42	
	2015-2019	2015-2019	2015-2019	2015-2019	0.18	-0.72	-0.84	0.75	-0.92	0.36	0.94	0.68	-0.08	-0.83	-0.93	0.35	-0.97	0.31	
	1990-2019	1990-2019	1990-2019	1990-2019	-0.93	-0.42	-0.76	-0.82	-0.42	-0.65	-0.72	-0.50	-0.29	-0.11	-0.93	-0.75	-0.47	-0.53	
	1995-2019	1995-2019	1995-2019	1995-2019	-0.80	-0.39	-0.80	-0.28	-0.39	-0.43	-0.02	-0.28	-0.27	0.03	-0.83	-0.45	-0.40	-0.34	
	2000-2019	2000-2019	2000-2019	2000-2019	-0.51	-0.61	-0.87	0.75	-0.61	-0.25	0.82	0.05	-0.11	0.43	-0.56	-0.25	-0.56	-0.20	
	2005-2019	2005-2019	2005-2019	2005-2019	-0.51	-0.63	-0.86	0.82	-0.63	-0.22	0.82	-0.07	-0.24	0.42	-0.56	-0.21	-0.59	-0.14	
	2010-2019	2010-2019	2010-2019	2010-2019	-0.72	-0.89	-0.84	0.75	-0.89	-0.45	0.85	0.68	-0.17	0.72	-0.76	-0.44	-0.89	-0.37	
	2015-2019	2015-2019	2015-2019	2015-2019	0.13	-0.72	-0.84	0.75	-0.72	0.27	0.74	0.50	-0.06	-0.63	-0.75	0.28	-0.76	0.25	
	1990-2019	1990-2019	1990-2019	1990-2019	-0.91	-0.76	-0.83	-0.58	-0.76	-0.83	-0.58	-0.04	0.04	0.37	-0.90	-0.89	-0.81	-0.77	
	1995-2019	1995-2019	1995-2019	1995-2019	-0.86	-0.80	-0.76	0.15	-0.80	-0.76	0.15	0.41	0.24	0.65	-0.84	-0.79	-0.85	-0.73	
	2000-2019	2000-2019	2000-2019	2000-2019	-0.87	-0.90	-0.76	0.56	-0.90	-0.76	0.56	0.80	0.46	0.93	-0.86	-0.78	-0.92	-0.74	
	2005-2019	2005-2019	2005-2019	2005-2019	-0.86	-0.93	-0.84	0.56	-0.93	-0.84	0.56	0.82	0.29	0.92	-0.86	-0.84	-0.95	-0.83	
	2010-2019	2010-2019	2010-2019	2010-2019	-0.84	-0.97	-0.57	0.88	-0.97	-0.57	0.88	0.75	-0.20	0.84	-0.87	-0.57	-0.98	-0.49	
	2015-2019	2015-2019	2015-2019	2015-2019	0.18	-0.93	0.35	0.94	-0.93	0.35	0.94	0.71	-0.11	-0.84	-0.92	0.33	-0.97	0.29	
	1990-2019	1990-2019	1990-2019	1990-2019	-0.82	-0.14	-0.36	-0.85	-0.14	-0.36	-0.85	-0.76	-0.48	-0.44	-0.84	-0.52	-0.21	-0.22	
	1995-2019	1995-2019	1995-2019	1995-2019	-0.37	0.22	0.20	-0.66	0.22	0.20	-0.66	-0.81	-0.61	-0.63	-0.45	0.17	0.18	0.29	
	2000-2019	2000-2019	2000-2019	2000-2019	0.75	0.53	0.93	-0.36	0.53	0.93	-0.36	-0.91	-0.64	-0.76	0.65	0.92	0.56	0.93	
	2005-2019	2005-2019	2005-2019	2005-2019	0.74	0.73	0.82	-0.23	0.73	0.82	-0.23	-0.85	-0.38	-0.82	0.71	0.82	0.77	0.83	
	2010-2019	2010-2019	2010-2019	2010-2019	0.94	0.85	0.84	-0.44	0.85	0.84	-0.44	-0.48	0.17	-0.94	0.94	0.83	0.85	0.78	
	2015-2019	2015-2019	2015-2019	2015-2019	-0.46	-0.24	-0.01	0.14	-0.24	-0.01	0.14	0.04	0.05	0.64	-0.53	0.01	-0.25	0.04	

PREVALENCE MENTAL DISORDERS IHME						
Category titles are listed below						
4	5	6	7	8	9	10
1867.1	518.5	606.2	529.3	3796.5	404.1	534.1
1910.1	518.9	605.9	521.8	3902.6	418.5	531.5
1949.4	519.4	605.7	515.3	4007.0	431.5	529.0
1983.2	519.9	605.5	510.1	4106.5	442.0	526.5
2009.5	520.4	605.3	506.7	4198.1	449.2	524.2
2026.2	520.9	605.1	505.4	4278.9	452.3	522.1
2037.0	521.5	604.9	506.0	4346.0	452.2	519.9
2046.3	522.1	604.7	507.6	4398.7	451.2	517.3
2054.0	522.6	604.5	509.6	4439.0	449.5	514.6
2060.3	523.2	604.3	511.3	4467.7	448.2	512.0
2064.9	523.7	604.1	512.2	4485.8	447.7	509.9
2069.9	524.2	603.9	511.7	4493.3	448.8	507.9
2076.3	524.7	603.8	510.4	4492.3	450.6	505.8
2082.7	525.2	603.6	508.6	4486.7	452.8	503.5
2087.7	525.6	603.5	507.1	4482.2	454.8	501.0
2089.8	526.0	603.3	506.3	4484.8	456.2	498.4
2090.0	536.5	603.1	506.2	4491.8	457.2	492.7
2089.9	560.7	602.8	506.2	4498.4	458.2	482.7
2089.4	589.6	602.5	506.4	4503.6	459.2	471.4
2088.4	613.6	602.3	506.7	4506.4	459.9	461.5
2087.0	623.8	602.1	507.0	4506.5	460.1	455.9
2083.6	623.9	602.0	512.3	4495.2	455.5	453.9
2078.0	624.1	601.9	524.1	4468.6	445.3	452.3
2072.0	624.2	601.9	538.0	4435.8	433.1	451.1
2067.3	624.3	601.8	549.6	4404.1	422.9	449.9
2065.7	624.4	601.7	554.4	4382.1	418.7	448.4
2085.3	626.9	601.5	554.3	4372.8	422.2	445.4
2104.1	631.3	601.2	554.3	4369.1	426.2	441.4
2103.0	636.5	601.2	554.2	4369.6	426.1	435.9
2102.0	636.0	601.3	554.1	4376.0	424.4	428.3
	643.41					
ADHD*	Autism	Bipolar	Conduc	Depress	Eating C	Intell Disab***
-0.82	-0.35	0.64	0.07	-0.92	-0.49	0.49
-0.41	0.01	0.14	0.31	-0.93	-0.36	0.04
0.50	0.54	-0.67	0.84	-0.89	-0.78	-0.64
0.49	0.48	-0.75	0.83	-0.89	-0.77	-0.67
0.69	0.84	-0.96	0.78	-0.86	-0.67	-0.86
0.95	0.73	-0.93	-0.77	-0.90	0.94	-0.61
-0.81	-0.47	0.71	-0.07	-0.88	-0.36	0.59
-0.40	-0.27	0.35	0.03	-0.77	-0.09	0.28
0.63	0.04	-0.25	0.43	-0.55	-0.39	-0.19
0.66	-0.09	-0.23	0.42	-0.55	-0.38	-0.13
0.68	0.77	-0.90	0.72	-0.80	-0.61	-0.80
0.75	0.45	-0.69	-0.57	-0.73	0.70	-0.45
-0.70	-0.01	0.36	0.40	-0.85	-0.70	0.18
-0.23	0.43	-0.24	0.64	-0.91	-0.66	-0.36
0.27	0.79	-0.83	0.93	-0.90	-0.86	-0.84
0.19	0.82	-0.96	0.92	-0.90	-0.86	-0.92
0.66	0.87	-0.99	0.84	-0.90	-0.74	-0.87
0.95	0.86	-0.99	-0.80	-0.90	0.98	-0.62
-0.88	-0.74	0.94	-0.41	-0.80	-0.13	0.86
-0.81	-0.80	0.93	-0.63	-0.26	0.49	0.87
-0.29	-0.91	0.95	-0.76	0.71	0.66	0.94
0.11	-0.85	0.90	-0.82	0.75	0.79	0.88
-0.05	-0.57	0.80	-0.94	0.92	0.94	0.68
0.12	-0.07	-0.16	0.65	-0.46	-0.30	-0.13

**Table 1**  
**Pearson Correlation Coefficients (r) of Comparisons of**  
**Firearm Death Rates and Prevalence of Mental Disorders, 1990-2019,**  
**by Type of Firearm Death, Mental Disorder, and Era, U.S.**

	Rates and Prevalence Age-Adjusted						
	Era:	1990-2019	1995-2019	2000-2019	2005-2019	2010-2019	2015-2019
		Values in red: r > 0.80					
		All Firearm Death Rate					
All Mental Disorders		-0.83	-0.65	-0.63	-0.66	-0.50	0.35
Anxiety Disorders		-0.63	-0.55	-0.58	-0.61	-0.42	0.31
Depressive Disorders		-0.92	-0.93	-0.89	-0.89	-0.86	-0.90
ADHD*		-0.82	-0.41	0.50	0.49	0.69	0.95
Bipolar Disorder		0.64	0.14	-0.67	-0.75	-0.96	-0.93
Conduct Disorder		0.07	0.31	0.84	0.83	0.78	-0.77
Schizophrenia		-0.61	-0.66	-0.92	-0.94	-0.95	-0.97
Autism Disorders**		-0.35	0.01	0.55	0.50	0.77	0.61
Eating Disorders		-0.49	0.04	-0.78	-0.77	-0.67	0.94
Intellectual Disability***		0.49	-0.36	-0.64	-0.67	-0.86	-0.61
		Firearm Homicide Rate					
All Mental Disorders		-0.75	-0.45	-0.25	-0.21	-0.44	0.28
Anxiety Disorders		-0.53	-0.34	-0.20	-0.14	-0.37	0.25
Depressive Disorders		-0.88	-0.77	-0.55	-0.55	-0.80	-0.73
ADHD*		-0.81	-0.40	0.63	0.66	0.68	0.75
Bipolar Disorder		0.71	0.35	-0.25	-0.23	-0.90	-0.69
Conduct Disorder		-0.07	0.03	0.43	0.42	0.72	-0.57
Schizophrenia		-0.47	-0.40	-0.56	-0.59	-0.89	-0.76
Autism Disorders**		-0.47	-0.27	0.05	-0.07	0.72	0.44
Eating Disorders		-0.36	0.28	-0.39	-0.38	-0.61	0.70
Intellectual Disability***		0.59	-0.09	-0.19	-0.13	-0.80	-0.45
		Firearm Suicide Rate					
All Mental Disorders		-0.89	-0.79	-0.78	-0.84	-0.57	0.33
Anxiety Disorders		-0.77	-0.73	-0.74	-0.83	-0.49	0.29
Depressive Disorders		-0.85	-0.91	-0.90	-0.90	-0.90	-0.90
ADHD*		-0.70	-0.23	0.27	0.19	0.66	0.95
Bipolar Disorder		0.36	-0.24	-0.83	-0.96	-0.99	-0.99
Conduct Disorder		0.40	0.64	0.93	0.92	0.84	-0.80
Schizophrenia		-0.81	-0.85	-0.92	-0.95	-0.98	-0.97
Autism Disorders**		-0.01	0.43	0.79	0.83	0.77	0.64
Eating Disorders		-0.70	-0.36	-0.86	-0.86	-0.74	0.98
Intellectual Disability***		0.18	-0.66	-0.84	-0.92	-0.87	-0.62

\* Attention-deficit/hyperactivity disorder  
 \*\* Autism spectrum disorders  
 \*\*\* Idiopathic developmental intellectual disability

N = 180

Mental Disorders Categories
1 Mental Disorders
2 Schizophrenia
3 Anxiety disorders
4 Attention-deficit/hyperactivity disorder
5 Autism spectrum disorders
6 Bipolar disorder
7 Conduct Disorder Incidence
8 Depressive disorders
9 Eating disorders
10 Idiopathic developmental intellectual disability

JP Regressions

JP 2	JP1	JP1	JP 2	JP 3	Hi SDI s US			US		Hi SDI s US	
US					All Firearm Deaths	FA Suicid	FA Homicides	Suicide %	Homicide %	Suicide %	Homicide %
10.2	10.3	5.9	3.9	3.8	1.5	0.9	0.4	58%	38%	58%	28%
10.2	10.3	5.9	3.9	3.9	1.4	0.8	0.4	57%	38%	58%	28%
10.2	10.3	5.8	4.0	4.0	1.4	0.8	0.4	57%	39%	59%	28%
10.2	10.2	5.8	4.0	4.0	1.4	0.8	0.4	56%	39%	59%	28%
10.2	10.2	5.7	4.1	4.1	1.3	0.8	0.4	56%	40%	59%	27%
10.2	10.2	5.7	4.1	4.2	1.3	0.8	0.4	55%	40%	59%	27%
10.2	10.2	5.6	4.2	4.2	1.3	0.7	0.3	55%	41%	60%	27%
10.2	10.2	5.7	4.2	4.1	1.2	0.7	0.3	56%	42%	60%	27%
10.2	10.1	5.8	4.0	4.0	1.2	0.7	0.3	57%	40%	60%	27%
10.3	10.1	5.9	3.8	3.9	1.2	0.7	0.3	58%	38%	60%	27%
10.3	10.1	6.0	3.7	3.8	1.1	0.7	0.3	59%	36%	61%	27%
10.3	10.1	6.1	3.5	3.7	1.1	0.7	0.3	61%	35%	61%	26%
10.3	10.3	6.2	3.6	3.6	1.1	0.6	0.3	60%	35%	61%	26%
10.3	10.6	6.3	3.8	3.5	1.0	0.6	0.3	60%	36%	61%	26%
10.3	10.8	6.4	3.9	3.8	1.0	0.6	0.3	60%	36%	61%	26%
10.9	11.1	6.6	4.1	4.1	1.0	0.6	0.3	59%	37%	62%	26%
11.5	11.3	6.7	4.2	4.5	0.9	0.6	0.2	59%	37%	62%	26%
12.1	11.6	6.8	4.4	4.5	0.9	0.6	0.2	59%	38%	62%	26%
12.0	11.9	6.9	4.5	4.5	0.9	0.6	0.2	58%	38%	62%	25%
11.8	12.1	7.0	4.7	4.5	0.9	0.5	0.2	58%	39%	63%	25%
								<b>59%</b>	<b>37%</b>	<b>62%</b>	<b>26%</b>
APC					APC			Average during 2000-2019			
0.1	-0.2	-1.0	1.3	1.6	-2.7	-2.4	-3.3				
5.7	2.3	1.8	-4.7	-2.8							
-1.5			3.9	9.3							
				0.0							
p-Vlaue					p-Vlaue						
0.46	0.40	0.008	0.18	0.07	0.003	0.10	0.11				
0.02	7E-06	< 10-10	0.19	0.003							
0.47			0.0003	0.03							
				0.12							
