

eTable 2: Mixed effect linear regression model showing a significant association between the Proportion of Firearm Ownership by State and Firearm Fatality Rate (per 100,000)

Characteristic	Unadjusted Model			Intermediate Model			Full Model		
	Beta	95% CI ¹	p-value	Beta	95% CI ¹	p-value	Beta	95% CI ¹	p-value
Firearm ownership quartiles by state ²									
Lowest	—	—		—	—		—	—	
Second	3.7	0.73, 6.6	0.016	3.8	0.82, 6.8	0.014	6.0	3.0, 9.0	<0.001
Third	9.1	6.2, 12	<0.001	9.2	6.3, 12	<0.001	11	8.1, 14	<0.001
Highest	11	7.6, 14	<0.001	11	7.7, 14	<0.001	12	9.1, 15	<0.001
Mental health providers ratio ³				0.13	-0.02, 0.28	0.094	0.23	0.08, 0.39	0.004
Proportion of population living in rural areas (%)							0.05	0.04, 0.06	<0.001
Primary care physicians ratio ³							0.51	-0.37, 1.4	0.3
Unemployed (%)							1.8	1.6, 2.0	<0.001
Without health insurance (%)							-0.14	-0.26, -0.02	0.026
High school graduation or							0.01	-0.07, 0.08	0.9

All models corrected for county population.

¹ CI = Confidence Interval

² Proportion of state population that owns firearms, categorized by quartiles.

³ Ratio of primary care physicians per 1000 people.

⁴ Index of dissimilarity, where 0 (complete integration) to 100 (complete segregation)

⁵ USDA Poverty Area Measures metric 'HiPov1519'

Characteristic	Unadjusted Model			Intermediate Model			Full Model		
	Beta	95% CI ¹	p-value	Beta	95% CI ¹	p-value	Beta	95% CI ¹	p-value
equivalent (%)									
Residential segregation index ⁴							0.01	-0.01, 0.03	0.3
Poverty ⁵									
No							—	—	
Yes							0.80	0.07, 1.5	0.032

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