



RESEARCH NEWS

Stronger US gun laws are linked to lower homicide and suicide rates

Jacqui Wise

London

US states with the strictest gun laws have lower rates of firearm homicides and suicides than states with more relaxed laws, an observational study published in *JAMA Internal Medicine* shows.¹

In 2015 some 36 352 deaths from firearms occurred in the United States: 22 018 (60.6%) from suicide and 12 979 (35.7%) from homicide. The overall death rate from firearms was 11.3 per 100 000, but the rate varies among states, from a low of 3.1 in Massachusetts to a high of 20.4 in Kentucky.

The researchers examined firearm death rates during 2010-14 in 3108 counties in 48 states. Each county was given a policy score from 0 to 12, based on the strength of its firearm laws in six categories. The categories included dealer regulation, licensing requirements, background checks for private sales of firearms including at gun shows, restrictions on multiple purchases, reporting requirements for lost or stolen guns, and laws requiring firearms to meet design and manufacturing standards.

Because firearms can move across state lines counties were also given an interstate policy score, where a higher score indicated stricter laws in nearby states. California had the strongest firearm control laws—scoring 10 out of 12—but, because it is adjacent to states with low policy scores, many counties in California had low interstate policy scores.

The study found that stronger firearm laws in a state were associated with lower firearm suicide rates and lower overall suicide rates regardless of the strength of the laws in neighbouring states. And counties in states with low or medium strength laws had higher firearm suicide rates, also regardless of the strength of laws in neighbouring states.

Firearm homicide rates were highest in counties in states with the weakest state laws and where neighbouring states also had laws of low or medium strength (incidence rate ratio 1.38 (95% confidence interval 1.02 to 1.88)). Counties in states with weaker laws had lower rates of firearm homicide only when surrounding states had stronger laws, the study found.

One limitation of the study is that, because US state firearm laws are generally more lenient than in other countries and only a few states have strict laws, the ability to detect the effect of the strictest laws may have been limited.

The researchers concluded, “Strengthening firearm policies at the state level could help to reduce the incidence of both firearm suicide and homicide, with benefits that extend across state lines.”

1 Kaufman E, Morrison C, Branas C, et al. State firearm laws and interstate firearm deaths from homicide and suicide in the United States: a cross-sectional analysis of data by county. *JAMA Intern Med* 2018;(March). 10.1001/jamainternmed.2018.0190.

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