



Firearms incidents cost Aotearoa \$322m a year: Strong laws save lives

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Summary

Aotearoa needs to maintain and strengthen restrictions on firearms access. Targeted education and prevention programmes are also needed to keep firearm suicide rates falling and reverse the increase in firearm assaults.

Our new study, published today in the *Annals of Internal Medicine*, shows that although firearm suicide rates decreased after firearms legislation tightened in 1992, firearm assaults and related hospitalisations have risen since 2014. Māori and Pacific peoples are two to three times more likely than Europeans to be hospitalised due to firearm assault, and firearm injuries are more common in deprived and rural communities. Each year, firearm-related mortality and hospitalisation cost NZ\$321m in lost life-years and NZ\$1.48m in hospital care.

Firearms cause preventable deaths, injuries, and long-term costs to the health system. While public debate often centres on high-profile shooting events, our new study, published in the *Annals of Internal Medicine* and covering 2000 to 2023, provides the first comprehensive picture of everyday firearm-related harm in Aotearoa.¹

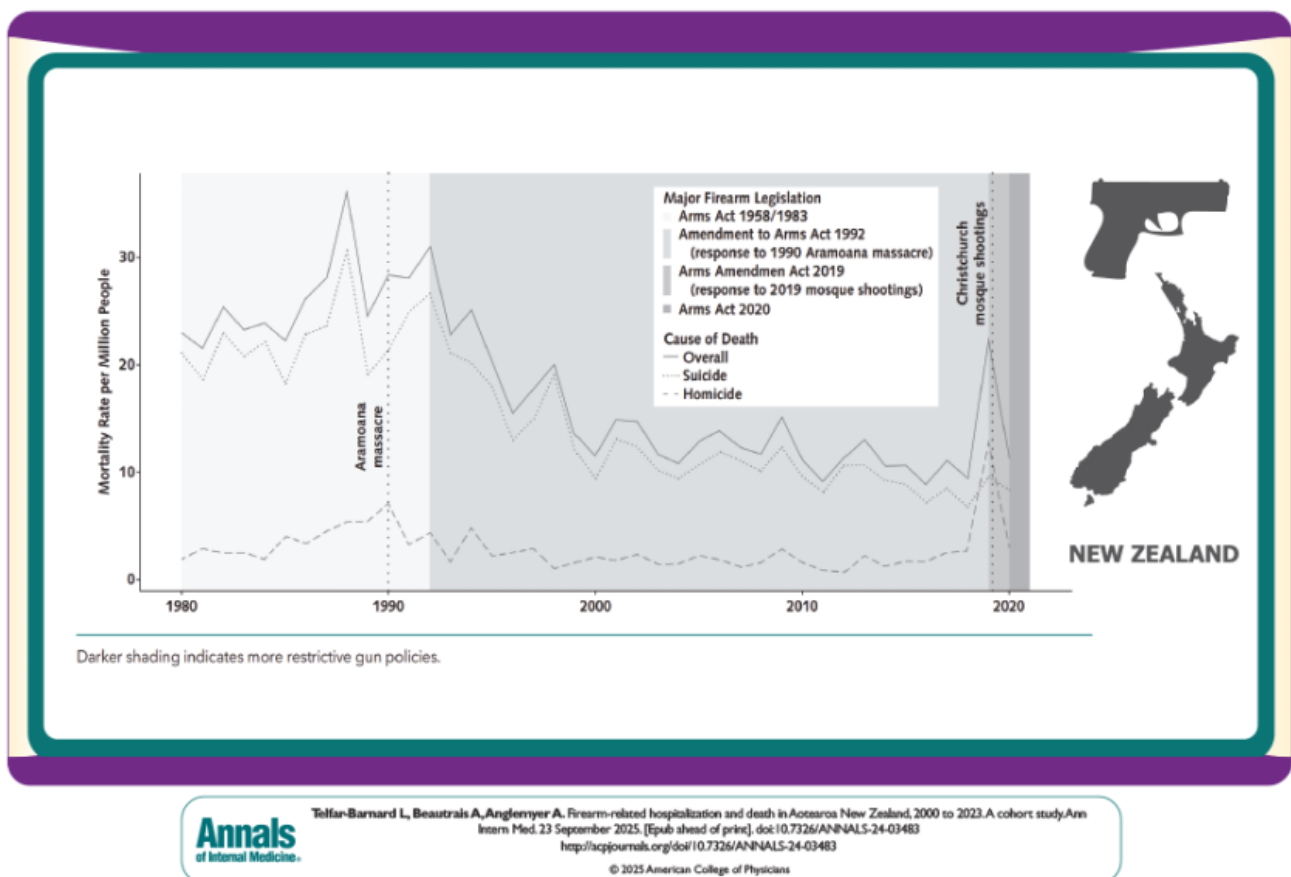
Key Findings

Our key conclusion is that tighter firearm regulations save lives.

Suicide is the most common type of firearms death. In 1992, the Arms Amendment Act brought tighter rules on firearm licensing, photo ID, background checks, and storage. After these changes were implemented, deaths by firearm suicide dropped from more than 30 per million in the early 1990s to fewer than 10 per million in 2018. The reduction continued further after 2019 and 2020 law reforms following the Christchurch mosque shootings. Firearm suicide is still the leading cause of firearm death, but it now makes up a smaller share of all suicide deaths and of all firearm deaths (Figure 1).

Figure 1. Visual abstract detailing changes in firearm-related deaths over time.
Source: Telfar-Barnard *et al.*¹

In the context of changes to New Zealand firearm regulations, what have been the trends in firearm-related deaths during 2000–2018?



In contrast, hospitalisations for firearm assault more than doubled between 2014 and 2018. Assaults now account for a growing share of costs and years of life lost, with victims younger on average than those who die by suicide.

Across deaths and hospitalisations, the burden of firearm harm is not shared equally.

Men, overwhelming, dominate firearm deaths and hospitalisations. Nine out of ten hospitalisations and more than nine out of ten deaths are male. While hospitalisations cluster in young adults, with a median age of 25, firearm suicides happen later in life, with a median age of around 50. Children are less affected overall, but are over-represented in hospitalisations for firearm accidents, implying ongoing issues with safe storage and supervision.

Inequities by ethnicity are large and persistent. Māori are almost three times as likely to be hospitalised for firearm assault as Europeans, and Pacific peoples more than twice as likely. Māori are also more than three times as likely to die from firearm assault. In contrast, firearm suicide is less common among Māori and Pacific peoples than among Europeans. Asian peoples have relatively low rates of all firearm harms, although small numbers make estimates less reliable.

Socioeconomic and geographic differences reinforce these patterns. Hospitalisation rates rise steadily with deprivation. People in the poorest communities are more than twice as likely to be admitted with firearm injuries as those in the wealthiest. Rural residents face the highest mortality burden of all. Mortality rates in rural settlements are more than 140

per million compared with about seven per million in the largest urban areas.

The costs are not small. Firearm deaths account for more than 2,000 years of life lost every year, valued at around \$321 million. Three quarters of this loss comes from suicide, though the share from assault is increasing. Hospitalisations add about \$1.48 million each year, with most requiring surgery. None of this counts the ongoing health and social costs for survivors – or their families – which means the true burden is higher.

International comparison shows the differences clearly. In New Zealand, nearly 80 percent of firearm deaths are suicides. In the United States it is closer to half, with a much higher proportion due to homicide.² That difference partly reflects stronger firearm regulations in New Zealand. But inequities are still extensive, and the increasing number of firearm assaults is concerning.

Implications

Firearm harm should be understood as a public health problem as well as a criminal justice issue. The evidence supports three main responses.

The first is the need to maintain and strengthen firearm regulations. Legislative reforms in 1992, and 2019 and 2020 are associated with reduced firearm suicide. We need continued political commitment to robust firearm controls to make sure that these improvements are retained, and to address the concerning rise in firearm assaults.

The second avenue is education and prevention. Public health and policy responses should include firearm safety programmes designed to reach the groups most at risk, i.e. including men and young people in rural communities who are more likely to have access to firearms. Such programmes could reduce accidental injuries among children, as well as total firearm harm, by improving safe storage practices and building community awareness of the risks of firearm misuse.

The third is the need for equity-focused responses. Māori and Pacific peoples experience disproportionate levels of firearm assault injury, reflecting broader inequities in violence exposure and social determinants of health. Firearm harm prevention must therefore be embedded within wider equity and violence-prevention strategies, ensuring that interventions are culturally appropriate, effective, and responsive to the needs of affected whānau and communities.

As well as these harm reduction strategies, we need more and better information. At present, we know who is injured or killed, but we often do not know who owned the firearm involved. Better data on who owns firearms involved in injury and death would help us identify other avenues for harm prevention.

What this Briefing adds

- Firearm suicides have declined since the 1990s, largely due to tighter regulation, but firearm assaults have increased since 2014.
- There are inequities in harm, with Māori and Pacific peoples facing much higher risks of firearm assault injury, and rural and deprived communities also disproportionately affected.
- The costs of firearm harm to Aotearoa include \$321 million per year in lost life-years and close to \$1.5 million annually in hospital care.

Implications for policy and practice

- Firearm access restrictions need to be maintained and strengthened.
- Targeted firearm safety and education initiatives are needed, particularly in rural communities and among young men who are most at risk.
- Prevention efforts could be better informed if firearm ownership data was routinely linked with injury and mortality records.

Where to get help

Need to talk? Free call or text [1737](tel:1737) any time for support from a trained counsellor.

Lifeline – 0800 543 354 (0800 LIFELINE) or free text 4357 (HELP).

Youthline – 0800 376 633, free text 234 or email talk@youthline.co.nz or online chat.

Samaritans – 0800 726 666

Suicide Crisis Helpline – 0508 828 865 (0508 TAUTOKO).

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