

## Gun control saves lives

In the January edition of *SAMJ*, Prinsloo *et al.*<sup>[1]</sup> reported that data from the police and a recent study of injury mortality based on post-mortem investigations showed a significant decrease in homicide in South Africa (SA). In 2000, SA had one of the world's highest homicide rates, estimated at 67 per 100 000 population,<sup>[2]</sup> but this had almost halved by 2009 to 38 per 100 000.<sup>[3]</sup> Several studies have shown that the decrease has been most evident in firearm-related homicides<sup>[3-5]</sup> and that it coincided with the introduction of stricter gun control legislation. One study estimated that more than 4 500 lives were saved across five SA cities from 2001 to 2005.<sup>[5]</sup> Pro-gun interest groups seeking to promote gun ownership and diffusion have attacked these findings, suggesting that stricter gun control was only enacted in 2004 following the publication of regulations pertaining to the Firearms Control Act (FCA) of 2000. They also argue that the 5-year study period ignored a pre-existing downward trend in firearm homicide, and that postmortem figures conflicted with official statistics, such as those presented by Statistics South Africa (SSA).

SA is fortunate to have good coverage of death notification nationally, alongside injury mortality surveillance in certain provinces. In this issue of *SAMJ*, we draw on SSA's death notifications from 1997 to 2013 to ask the question *Where have all the gun deaths gone?*<sup>[6]</sup> We found that in death notification data, the trend in gunshot-related injury deaths – irrespective of intent – was consistent with the findings of other studies. The annual number of firearm deaths was increasing during the 1990s and peaked in 2000, the year in which the FCA was adopted by parliament. Thereafter, the annual number of firearm deaths began to decrease, increasingly following the adoption of the regulations related to the FCA in 2004. The study provides further support for the hypothesis that stricter gun control accounted for the decrease in firearm homicide in SA. The findings are not surprising and echo an expanding body of international evidence. In a recent systematic review, Santaella-Tenorio *et al.*<sup>[7]</sup> identified 130 studies in 10 countries and found that reductions in firearm deaths were associated with the simultaneous implementation of laws encompassing multiple firearm restrictions in certain countries. The authors cited, alongside examples from the USA, Canada, Australia, New Zealand and Brazil, SA's FCA, which banned certain types of firearm, required training tests for licences, additional licences for each gun owned, increased age requirements for ownership and compulsory background checks.

While mortality data reflect the 'good news' of gun control policy saving lives, they are equally adept at showing the deleterious effects of laxity in its enforcement. A concerning finding from our study was that the decrease in homicide had not been sustained for the duration of the study period. We observed an increasing number of gunshot-related deaths in 2012 and 2013. This is also reflected in the increase in murder reported in recent police crime statistics. The timing of the observed increase in gunshot deaths also corresponds noticeably with the police finalising the fast-tracking of more than a million firearm-related applications between November 2010 and

July 2011, alongside allegations of corruption in the licensing and selling of firearms.

In its series of evidence briefings, the World Health Organization includes reducing access to firearms among its 'best buys' for violence prevention.<sup>[8]</sup> Although reduced access does not address the root causes of violence, it does, more often than not, reduce the severity and lethality of interpersonal conflict. In a high-violence setting such as SA, there are limited opportunities to effect a significant reduction in violence and homicide at the population level, and to do so relatively quickly. Most evidence-based strategies to reduce violence, such as investing in the early development stages of childhood and increasing positive adult involvement in child monitoring and supervision, establishing positive sociocultural norms, reducing socioeconomic inequalities and improving criminal justice and social welfare systems, all require long-term commitment and investment. As such, they can be difficult to sustain over relatively short political cycles.<sup>[9]</sup>

Reducing firearm mortality by means of stricter gun control is one of the most important short- to medium-term measures to address the burden of violence in SA, while longer-term interventions and policy options take effect. When we have evidence that policies and interventions are working, we need to ensure that they are applied rigorously and consistently. We should be wary of attempts to deny the evidence by groups and individuals promoting their own narrow ideological and commercial interests ahead of the public good.

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