

# “Smart” Choices: Shared Decision-making in Firearm Storage and Personalized Firearms

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Firearm injury is a leading cause of preventable death in children. In this issue of *Pediatrics*, the authors of the article “Family Firearm Ownership and Firearm-Related Mortality Among Young Children: 1976–2016” present a unique and important approach to evaluating the relationship between firearm ownership and firearm-related mortality.<sup>1</sup> The study is novel because Prickett et al<sup>1</sup> focus on the youngest and most vulnerable group (children <5 years of age) and evaluate trends in household gun ownership by type of firearm. Over the ~40 years studied, Prickett et al<sup>1</sup> found increasing firearm-related mortality rates in young children despite a downward trend in overall firearm ownership among families with young children. Most importantly, however, although overall firearm ownership decreased, the proportion of families who own handguns increased. This shift of firearm ownership from predominantly rifles (presumably for hunting) to handguns (presumably for self-protection) may provide 1 explanation for the recent increase in firearm-related mortality among young children. As firearm-related mortality in younger children is mostly unintentional, these findings are important for pediatricians to consider when counseling families of young children to store firearms unloaded, locked, and separate from ammunition, per American Academy of Pediatrics (AAP) guidelines.<sup>2</sup>

Almost 5 million children live in homes where at least 1 firearm is stored

loaded and unlocked.<sup>3</sup> Recommending that caregivers lock firearms, unloaded and separate from ammunition, may not seem feasible to some families who keep a handgun loaded and ready to fire in the event of needing to protect themselves from intruders. However, it is important to note that the risk of unintentional or intentional injury from a household firearm is much greater than the likelihood of providing protection for self-defense.<sup>4</sup> Prickett et al<sup>1</sup> astutely highlight the relationship between the small, curious hands of a young child and the easily accessible, operable, and loaded handgun as being extremely dangerous. A tailored approach to safe storage, based on the type of firearm and a family’s reasons for ownership, may be an opportunity for shared decision-making and improve adherence.<sup>5</sup> This study is a loud and compelling call to action for all pediatricians to start open discussions around firearm ownership with all families and to share data on the significant risks associated with unsafe storage. It is an even louder call to firearm manufacturers to step up and innovate, test, and design smart handguns that are inoperable by young children to prevent unintentional injury.

In January 2016, President Barack Obama said, “As long as we’ve got the technology to prevent a criminal from stealing and using your smartphone, then we should be able to prevent the wrong person from pulling a trigger on a gun,” when referring to a new

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initiative calling for more smart gun technology.<sup>6</sup> Conventionally, smart guns are defined as firearms equipped with the ability to limit use to their intended user(s).<sup>7</sup> Although the concept of smart guns has been around for decades, smart guns unfortunately have not been widely adopted. Critics argue that smart guns are not a reliable option, raising concerns that the firearm may not fire when needed. Additionally, critics speculate that smart guns would be expensive, with too many traditional firearms in circulation to make a difference.<sup>8</sup> However, these concerns should be addressed through innovation, research, and the implementation of policies to encourage the adoption of this promising technology by all gun owners.<sup>8</sup> The development of effective safety controls on firearms is not only attainable but could be the next big step toward reducing mortality, especially among our youngest. We as a society should be advocating for continued research to childproof firearms so that if families choose to have firearms in the home the safety of their children is not compromised.

While we work to mitigate risk and meet the needs of our families, it is important to note that the AAP affirms that the absence of guns in the

home is the most reliable and effective measure to prevent firearm-related injuries in children.<sup>2</sup> In addition to clinicians counseling families on safe storage and providing free or discounted locks to gun-owning families, it is vital we continue to advocate for innovations that protect our children with personalized technology. The AAP recently announced the new Gun Safety and Injury Prevention Research Initiative to convene experts to study and implement evidence-based interventions. Although this investment will support key work, it is imperative that we support large-scale public health efforts. Thus, we must continue to urge our government to fund firearm-violence-prevention programs that develop and disseminate personalized firearm technology to protect our children from unintentional injury.

#### ABBREVIATION

AAP: American Academy of Pediatrics

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