

# Household Gun Ownership

Ludwig et al. recently showed that in telephone surveys wives report the presence of a gun in the household less often than do husbands.<sup>1</sup> Since male and female spouses represent the same population of households, this "gender gap" should not exist. Apparently, wives are less likely to know about household guns than are husbands. The authors concluded that surveys should ask about personal, not household, gun ownership. This strategy would produce "more accurate estimates of America's gun stock than do reports about household guns."

A study by the California Firearms Injury Surveillance Program replicates Ludwig's principal finding. We included gun ownership questions in California Behavioral Risk Factor Surveillance Surveys for 1994 through 1996 and found that only 30% of California households report guns, compared with about 41% in national surveys cited by Ludwig. Even though California has a lower level of gun ownership, there was still a significant gender gap. Thirty-nine percent of male spouses reported having a gun in the household, compared with 30% of female spouses ( $n=11\,861$ ,  $P<.01$ ). Thus our finding supports Ludwig's conclusion that wives underreport household guns.

Ludwig argues that when we use household surveys to determine the presence of guns, we must take into account that some respondents are more knowledgeable than others. This is a valid methodological issue for survey researchers, but there is a substantive public health issue aside from this measurement problem.

Our data and Ludwig's show that many women living with men are unwittingly exposed to firearms in their homes. The presence of guns in households, not just personal gun ownership, is associated with an increased risk of homicide<sup>2</sup> and suicide.<sup>3</sup> Gun homicides in the home kill household members or acquaintances much more often than strangers.<sup>4,5</sup> Guns kept in homes are more likely to be involved in a fatal or non-fatal accidental shooting, criminal assault, or suicide attempt than to be used to injure or kill in self-defense.<sup>6</sup> Women are more likely than men to report that handguns are stored safely.<sup>7</sup>

Public health research needs to illuminate this problem. When a couple's household contains a gun, who controls it? Who is responsible for its safe storage? Who is likely to use it to threaten or shoot someone? We believe that Ludwig's findings and ours raise an important issue for the well-being of families, particularly women and children who

live with a deadly hazard whose very existence is unknown to them. □

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## Ludwig et al. Respond

The findings of Trent, Van Court, and Kim provide additional support for the view that survey estimates for household gun ownership rates may be understated because wives are less likely to report on guns in the home than are husbands. We would, however, urge caution in implementing specific public health interventions on the basis of these findings.

While Trent et al. interpret these findings as evidence that some husbands keep guns in the home without the knowledge of their partners, as we note in our original article this is only one possible explanation for differences in husbands' and wives' reports on household gun ownership. For example, another explanation is that because women are more likely to view guns as socially undesirable than men,<sup>1,2</sup> social-

desirability bias may be more pronounced with the reports of wives than husbands.

While we do not share Trent and colleagues' view that these findings unambiguously demonstrate that many wives are unaware of their husbands' guns, we wholeheartedly agree with their proposed research agenda. Additional information about the role of guns in the home should be an important part of the public health community's efforts to reduce the toll of gun violence in the United States each year. □

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## Parental Attitudes and Childhood Immunization

In their December 1998 article, Prislín and colleagues concluded that sociodemographic characteristics influence children's immunization primarily through their parents' beliefs, attitudes, and perception of control over immunization.<sup>1</sup> This conclusion is inconsistent with the findings of previous immunization research. Moreover, we are concerned that the findings may be an artifact of the way the analysis was performed.

Prislín et al. provide little discussion of previous literature concerning predictors of childhood immunization and how this study's findings fit into the larger set of scientific studies. Several previous studies, including our own, found that sociodemographic characteristics are strongly associated with immunization status, but they also showed little relationship between parents' attitudes and children's immunization status when adjustments were made for sociodemographic factors.<sup>2-5</sup> Prislín et al. concluded from their analysis that children's immunization coverage can be improved