Letters to the Editor

Letters to the Editor are welcomed and will be published, if found suitable, as space permits. Submission of a Letter to the Editor constitutes permission for its publication in the Journal. Letters should not duplicate similar material being submitted or published elsewhere. Letters referring to a recent Journal article should be received within three months of the article's publication. The editors reserve the right to edit and abridge letters, to publish replies, and to solicit responses from authors and others.

Letters should be submitted in duplicate, double-spaced (including references), and generally should not exceed 400 words.

Accidental Firearm Fatalities

Having recently conducted a review of the literature on gun accidents,[1] I read the recent Morrow-Hudson article[2] with great interest. The authors laid great stress on gun accidents involving children: "Particularly disturbing are the number of children under the age of 14 killed in firearms accidents" (p 1123). Even one such death is disturbing, but it should be noted that the relatively frequent involvement of children in the Morrow-Hudson sample appears to be a local peculiarity of North Carolina. While 31 per cent of the NC victims were under age 15 and 10 per cent under age 10, the corresponding figures for the US in 1980 were only about half as large—16 per cent and 6 per cent, respectively. Further, the bulk of victims in these age groups are 12–14 year old adolescents rather than the stereotypical small child described in so many news media stories. In short, the gun accident problem is largely one involving adolescents and young adults rather than small children (as is true of intentional homicides and criminal violence)—57 per cent of US accidental gun deaths in 1980 involved victims aged 15 to 34.

The age-specific rates described in Morrow-Hudson's Figure 1 as *annual* rates, the customary way of reporting death rates, are no such thing. The authors had cumulated deaths over a five-year period; by neglecting to divide by five to get an annual average, the authors exaggerated the annual rates by a factor of five. The risk of a fatal gun accident in any one year is less than one in 100,000 for the US population.[4] While it is a subjective matter how many gunshot deaths would constitute what the authors describe as "an important American public health problem" (p 1120), the problem they analyzed was only a fifth as large as their figures indicate.

The authors report that five persons age 15 to 19 (and presumably others as well) were shot while they or someone else were "cleaning, loading or unloading a gun." In this regard one might note the findings of medical examiner Vincent DiMaio regarding deaths allegedly involving persons shooting themselves while cleaning a gun. After further investigation of such cases, Dr. DiMaio concluded that every one he was familiar with turned out to be a suicide rather than an accident.[5] As 45 per cent of the Morrow-Hudson deaths were self-inflicted, there appears to be a serious possibility that many of the gun "accidents" they examined were not accidents at all.

REFERENCES

1. Kleck GK: Firearms Accidents. Unpublished manuscript, 1986.
2. Morrow PL, Hudson P: Accidental firearm fatalities in North Carolina, 1976–80. Am J Public Health 1986; 76:1120–1123.
3. Tabulations from 1980 Mortality Detail File public use computer tape available from the National Technical Information Service.
4. National Center for Health Statistics: Vital Statistics of the United States, 1980. Vol. II—Mortality, Part A.
5. DiMaio VM: The frequency of accidental gunshot wounds. Forensic Science Gazette 1973; 4:2–3.

Gary Kleck, PhD
Associate Professor, School of Criminology, Florida State University, Tallahassee, FL 32306

© 1987 American Journal of Public Health

Response from Morrow

After reviewing with our statistician Figure 1 in our paper,[1] we find that Dr. Kleck is right in that the figure presents five-year, rather than annual, rates; however, the rates given in Table 1 are annual rates, and the magnitude of the problem of accidental gunshot fatalities can be gauged, at least in North Carolina, by a review of Table 1. The relationships illustrated in our Figure 1 remain unchanged and the "age profile" of gun accidents is not the same as for homicides as Dr. Kleck implies. While the highest rate of accidental gunshot deaths is among teenagers (as we point out on p 1120), the rate falls through the third and fourth decades of life. Homicide rates actually reach their highest values in the age groups between 20 and 39.

As forensic pathologists we share Dr. Kleck's concern that suicidal gunshot fatalities may be misclassified as accidents. In fact, during our initial review of the data we rejected two cases on this basis. An alternative exists for the certification of "borderline", or unclear, cases: "undetermined" manner of death. Of 50 undetermined gunshot fatalities in North Carolina during the period 1976–80, 35 (70 per cent) were self-inflicted (suicide vs accident) (Morrow and Hudson, unpublished data). Not all of these were in the context of "cleaning, repairing, loading or unloading a gun." In fact, this category accounts for only 6 per cent of our series of self-inflicted gunshot accidents (see our Table 4, p 1122).[1]

Since over 90 per cent of gunshot suicide victims shoot themselves in the head or chest,[2] I re-examined all self-

TABLE 1—"Accidental" Self-inflicted Gunshot Wounds to Head and Chest, North Carolina, 1976–80

	Suicide Unlikely		Suicide Possible		Suicide Probable	
Location	#	(%)*	#	(%)*	#	(%)*
Head	18	(19/9)	8	(8.5/4)	4	(4/2)
Chest	18	(18/8)	8	(8.5/4)	6	(6/3)
Total	36	(37/17)	16	(17/8)	10	(10/5)

*(%) = % of self-inflicted/% of total accidents.