Guest editorial

International comparisons: useful or odious?

Comparisons are odious, according to Shakespeare, but seldom are they odious to epidemiologists unless they involve unlike categories. The two new papers providing data on injuries to children and teenagers in Australia[1] and England and Wales[2] painstakingly follow the format and data conventions set forth by Fingerhut *et al* in an earlier issue of this journal, using United States data.[3] As a result, valid comparisons can be made among the three countries; they reveal striking differences.

Most noteworthy are the differences in firearm mortality, which accounts for 27% of injury deaths in the United States, less than 6% in Australia, and a mere 1% in England and Wales. In the United States, the majority of gun deaths (64%) are homicides whereas in Australia, 75% are suicides.

The tables in these three papers are of special value because they allow us to examine injury mortality simultaneously by mechanism and intent, or by mechanism or intent alone. In the 15–19 age group (which includes most of the homicides and suicides that occur before age 20), the outstanding differences by intent among the three countries include the extremely high homicide rate in the United States and the low suicide rate in England and Wales (fig 1), even when deaths of unknown intent are included with suicides. Although the United States and Australia have similar suicide rates, the rate of suicide by suffocation (typically hanging) is almost twice as high in Australia, 3.8/100 000 compared with 2.0 in the United States.

In the 1–4 age group, where more than 80% of all injury deaths are unintentional, comparisons by mechanism reveal extremely low rates of motor vehicle occupant death and drowning in England and Wales (fig 2). Australia has the lowest death rate from fire, as well as a motor vehicle occupant rate that is 40% lower than the United States rate.

The ability to make valid comparisons among countries should lead not only to recognition of important differences but also to better understanding of successful preventive measures. In England and Wales, the low motor vehicle death rates (about one fifth the United States rates for children less than 15 years old) may reflect the common practice of placing children in the rear seat. The high poisoning death rates among teenagers in Australia and England and Wales relative to the United States (4.9, 3.4, and 2.1 respectively, for ages 15–19) raise questions as to differences among these countries in usage and lethality of recreational drugs.

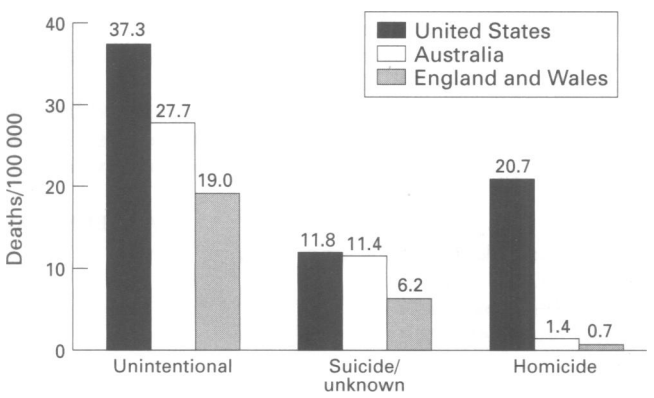

Figure 1 Injury deaths by intent, ages 15–19. United States (1993) Australia (1994), and England and Wales (1992).

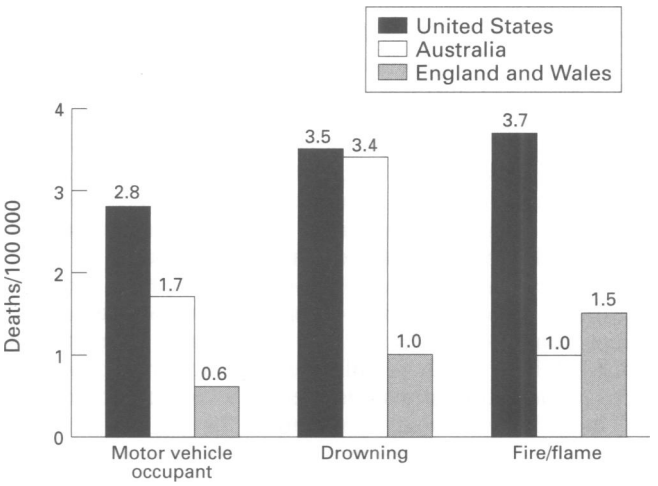

Figure 2 Injury deaths by mechanism, ages 1–4. United States (1993), Australia (1994), and England and Wales (1992).

These comparisons illustrate the value of comparable data and of injury data presented by both mechanism and intent. I hope that the next step will be presentations of comparable time trends for specific injuries. In the 0–19 age group, Australia's 62% drop in the motor vehicle death rate over a 15 year period[1] seems remarkable, as does England and Wales' annual 6% overall reduction in injury death rates from 1985 to 1992[2] and the United States' 44% reduction in deaths from farm machinery between 1980–85 and 1986–92.[4] Until comparable trend data are available, however, it will be hard to assess these statistics.

The data also illustrate coding differences among countries. In Australia and England and Wales, only trivial numbers of motor vehicle deaths are unspecified at the fourth digit level. In the United States, 17% of motor vehicle deaths in the under 20 age group are unspecified, making it necessary to approximate the numbers of occupant and motorcyclist deaths by apportioning the 'unspecifieds' according to their proportion in the known distributions for each age group.[3] Since other countries can provide the necessary detail on the circumstances of motor vehicle deaths, the United States should strive to emulate them.

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1 Scott I, Moller J, Bordeaux S. Injury mortality among children and teenagers in Australia, 1994. *Injury Prevention* 1997; **3:** 46–7.
2 DiGuiseppi C, Roberts I. Injury mortality among children and teenagers in England and Wales, 1992. *Injury Prevention* 1997; **3:** 47–9.
3 Fingerhut LA, Annest JL, Baker SP, Kochanek KD, McLoughlin E. Injury mortality among children and teenagers in the United States, 1993. *Injury Prevention* 1996; **2:** 93–4.
4 Baker SP, Fingerhut LA, Higgins L, Chen L-H, Braver ER. *Injury to children and teenagers, state-by-state mortality facts.* Baltimore, MD: The Johns Hopkins Center for Injury Research and Policy, 1996.