PostScript

LETTERS

Prices and affordability in child restraint seats in Japan

We were pleased to see the excellent article on child and family safety device affordability by country income level by Hendrie *et al* (2004).[1] International research has shown that the use of child restraint seats (CRS) significantly reduces the risk and severity of injuries resulting from motor vehicle crashes.[2] In the USA proper use of CRS is estimated to prevent approximately 53 000 injuries and 500 fatalities among children under 5 years.[3] This conclusion is supported by one systematic review.[4] Consequently, CRS laws and enhanced enforcement programs are ''strongly recommended'' interventions.

In contrast, in Japan the public health significance of motor vehicle injuries among children has not been adequately appreciated. This is despite the fact that from 1991 to 2002 there were 3582 motor vehicle crash related fatalities and 552 794 injuries involving children aged 0–5 years.[5]

There are several reasons for the lack of CRS use among Japanese. Compared with salaries of North American and European families, the Japanese average family income is higher. Nevertheless, the majority of parents perceive prices of CRS as comparatively higher than in other countries.

A CRS in Japan is costly—approximately US$250–400. Thus government subsidies would be necessary to increase affordability and motivation to use by parents.

This process would be expensive, but when measured against public health benefits it is clearly worthwhile.[5] Arguably, a moral obligation exists to offer subsidies that give all children a fair chance of surviving to adulthood.[1] One example of the efficacy of subsidies was seen in 1982–84 when the Swedish government introduced a child seat lending scheme. This resulted in 67% of children using car seats on short trips and 73% on long trips and to a subsequent decrease in MV injuries.[6]

In other motorized countries, CRS use is widely prevalent and child passenger safety has long been a priority. In contrast, Japanese policy makers and parents are not fully aware of the safety benefits of CRS. A survey carried out by the Japan Automobile Federation in 1998 revealed that only 8.5% of parents used CRS.[2] Similarly, a recent national observational survey jointly conducted by the National Police Agency (NPA) and Japan Automobile Federation (JAF) found that seven out of 10 CRS were loosely fitted.[7]

Greenberg-Seth *et al* demonstrated that a community based intervention quickly increases proper CRS use but that improvements are greatest in high income areas.[8] Education and enforcement are commonly proposed for injury control but few such activities have been initiated in Japan. We suggest that media education campaigns be initiated and properly evaluated to monitor changes in CRS safety awareness and use.

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Time trends in socioeconomic inequalities in road traffic injuries to children, Northumberland and Tyne and Wear 1988–2003

Socioeconomic inequalities in childhood road traffic injuries (RTIs) have been well documented.[1] However, in is not clear if, and how, these inequalities have changed over recent years.[2–4] We investigated time trends in socioeconomic inequalities in childhood RTIs between 1988 and 2003 using police data from the North East of England.

Methods

The British police record a variety of information on each collision involving a vehicle they are aware of, including: the circumstances of the collision, and the drivers, vehicles, and casualties involved. This information is collated as STATS19 returns. Between July 1988 and June 2003 Northumbria Police also recorded the home postcode of all casualties.

Using data from the 1991 census, we calculated Townsend Deprivation Scores (TDS)[5] for all enumeration districts in the area covered by Northumbria Police (Northumberland and Tyne and Wear). After linking postcodes to enumeration districts, RTI counts in children under 16, and population denominator data from the 1991 census, were then added to this dataset. Logistic regression was used to calculate the odds of childhood RTIs in each quintile of TDS, compared with the most affluent, in three five year time periods. Separate analyses were performed by sex and for children injured as pedestrians or vehicle passengers. Tests for interaction were used to investigate any changes in TDS variations in childhood RTIs over time.

Results

Of 14 146 recorded RTIs to children, 11 194 (79.1%) children were pedestrians (not cyclists) or vehicle passengers at the time of the injury. Full data were available for 10 542 injuries (94.2%), including 6840 (64.9%) pedestrian injuries and 6035 (57.2%) boys. Overall rates of RTIs decreased progressively over time in all groups (see http://www.injuryprevention.com/supplemental for table 1). Rates of pedestrian, but not passenger, RTIs were consistently greater in boys than girls. Trends in the odds of boys and girls being injured as pedestrians were present in each time period according to quintiles of TDS with children from more deprived areas having a greater chance of being injured than those from more affluent areas. The opposite trend was seen in girls injured as vehicle passengers in the earliest time period with no trend in the later two time periods.

Although the gradient in pedestrian RTIs according to TDS showed a decrease over time in both boys and girls, this only reached conventional levels of statistical significance in girls ($p<0.001$ in girls, $p = 0.069$ in boys). In contrast, there was an increase in the gradient of passenger RTIs according to TDS quintiles over time in girls ($p<0.001$ in girls, $p = 0.247$ in boys). However, this represents a reduction in an originally negative gradient rather than an increasing positive gradient (see fig 1).

Discussion

We have found strong socioeconomic inequalities in pedestrian RTIs in children living in the Northeast of England but also evidence that these gradients have decreased over the last 15 years. There was no evidence of persistent socioeconomic inequalities in childhood RTI in vehicle passengers.

Although not all accidents occurring on public roads will be reported to the police,[6] it is likely that STATS19 information is available for most RTI involving vehicles. These data also allowed us to investigate the full range of childhood RTI and not just those brought to medical attention—a process that may, itself, be socioeconomically patterned. The use of 1991 census data for denominator counts and to calculate TDS throughout may have led to inaccuracies in the later two time periods but provided consistency in our measure of socioeconomic position.

Our finding of decreasing inequalities in childhood pedestrian RTIs is at odds with other recent work,[2–4] perhaps due to variations in study populations or defining injuries, but does suggest recent success in this area. Further work is needed to confirm the patterns we have found elsewhere in the UK.

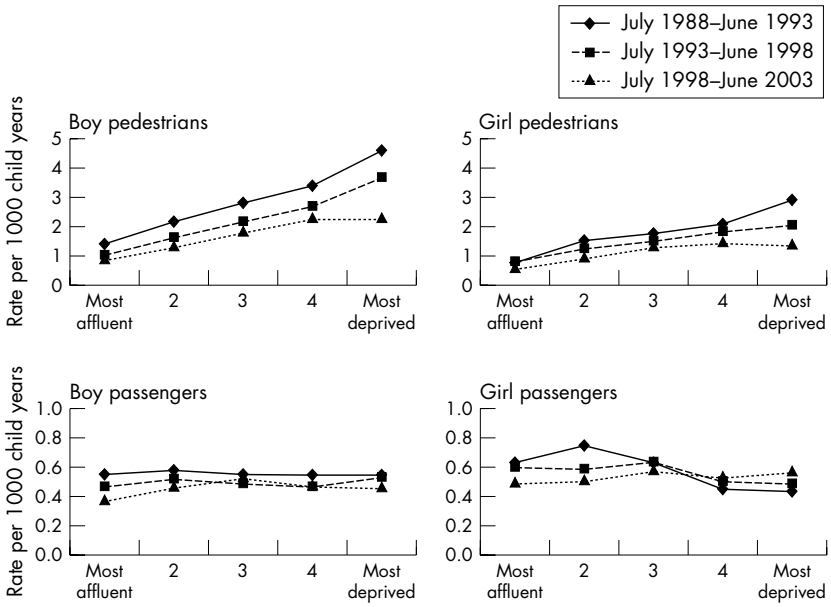

Figure 1 Trends in child road traffic injuries in Northumbria by quintiles of Townsend Deprivation Score, 1988–2003.

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Table 1 can be viewed on our website.

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BOOK REVIEW

Evaluating Gun Policy

Edited by Jens Ludwig and Philip J Cook. Washington, DC: Brookings Institution Press, 2003.

The United States has a big problem with gun injuries: it suffers tens of thousands of gun related deaths and injuries annually; its gun related death and injury rates dwarf those in other developed nations. The United States also has a big problem with addressing gun deaths and injuries: there is wide public support for many policies aimed at reducing the toll, but little political will to undertake policy changes. Both problems have gotten a bit better in the past decade, but both remain quite serious indeed.

The premise behind *Evaluating Gun Policy* is that the second problem may diminish in the face of clear information on the effects of policies designed to reduce gun injuries. The editors—both eminent American economic scholars with a longstanding interest in violence and criminology—undertook to summarize current policies related to guns, and to present current assessments of the effectiveness of policies that have been put in place over the past decade or so.

The resulting book is a valuable review and reference, which should be on the shelf of everyone in the United States who works on gun injury reduction and related policy development. It is likely also to be informative for those working on reducing deaths and injuries from small arms and light weapons around the globe and it is a welcome example of a serious examination of injury reduction policy effectiveness, and so relevant to injury prevention efforts everywhere.

The book starts with the editors' thorough, lucid, and well referenced review of current gun policy in the United States. The book is divided into five sections: Gun Prevalence, Regulating Ownership, Restricting Gun Carrying, Facilitating Research, and The Policy Process. Guest contributors are leading scholars in relevant fields. Each chapter is a case study, in many cases with new data analyses, designed to assess the utility of policies of a particular sort by examining how it worked in a particular instance. Clarifying commentaries follow. The result is readable, relevant, and at times riveting.

In chapter 2, Duggan discusses the relationship between gun access and suicide. He uses state level data on rates of suicide and gun ownership. As commenter John Mullay summarizes Duggan's findings: "…[G]un owners' suicidal propensities may be above average, and…instrumentality effects may be important."

Chapter 3, by the editors, explores whether guns in the home deter burglars. The authors conclude that "…[I]f there is … a deterrent effect, it may well be swamped by other factors associated with gun prevalence—most likely, it seems to us, that guns are particularly attractive loot." (p104)

Chapter 4, by Reuter and Mouzos, examines the (post-Port Arthur massacre) 1996–97 policy that led to a ban on long guns and a gun buy-back in Australia. They conclude that "[T]he trends are compatible with a conclusion that the ban and buy-back saved lives, but that conclusion cannot be offered with great confidence. But there is absolutely no evidence that the Australian policy innovations had a perverse effect, as has sometimes been claimed."

Chapter 5, by Vigdor and Mercy, studies the effects of state laws that ban the ownership of guns by domestic abusers. They use a log linear model to assess the impact of laws at the state level and " … cautiously conclude that laws restricting access to firearms by abusers under restraining orders lead to reductions in intimate partner homicides". In his commentary, Wintemute notes that studies that find no firm evidence of any effect are commonly misconstrued as presenting firm evidence of no effect.

Chapter 6, by Cohen and Ludwig, explores the effectiveness of police patrols for illegal handguns. They calculate estimates for the effects of the Pittsburgh program (on shots fired or gunshot injuries) in intervention—as compared to control—areas and conclude there was a reduction in shots fired and in injuries. The commentaries observe that this is the latest in a series of studies reaching the conclusion that this is an effective strategy. But they also note that the analytic methods used are not universally accepted.

Chapter 7, by Raphael and Ludwig, considers prison sentence enhancements by studying a famous example in Richmond,