To:	Transport & Health Policy Makers, & Practitioners
From:	Prof Adrian Davis, TRI, Edinburgh Napier University
Date:	19th April 2021
Subject:	Essential Evidence 4 Scotland No.38 The Inverse Care Law in road safety

Top Line: Top line: The frequency with which parents advocate for child safety varies inversely with the need for it. Models of health promotion based on community ownership and empowerment alone are unlikely to address the steep socioeconomic gradients in childhood injury mortality.

Pedestrian injuries are a leading cause of death and disability in childhood. Area wide traffic calming schemes are one of the few pedestrian injury prevention strategies for which there is documented evidence of efficacy. Traffic calming schemes aim to reduce the speed of vehicles by using physical measures such as speed humps or the redesign of the street space.

Roberts undertook a community based case-control study, conducted in the Auckland region of New Zealand.[1] After data analysis and preparation of scientific reports, all parents participating in the study were sent a two page report outlining the major study findings, their implications for prevention, and a summary of the recommendations arising from the study. Parents were invited to support these recommendations by signing and returning a petition to the New Zealand Minister for Transport.

In 1971 Julian Tudor Hart, a general practitioner in South Wales, coined 'the inverse care law', observing that 'the availability of good medical care tends to vary inversely with the need for it in the population served'. The data presented in Robert's study point towards another inverse law - that the willingness or ability to advocate for child safety varies inversely with the need for it. Without exception, the characteristics of parents least likely to take on the advocacy role offered in this study were the same characteristics that identified groups most at risk of child pedestrian injury. These results may go some way towards explaining why in Auckland, and possibly elsewhere, traffic calming and other safety schemes predominate in the more affluent areas.

Roberts suggested that barriers to advocacy among parents of children at high risk of injury include:

- Language and literacy barriers
- Lack of time resource set against more pressing and immediate needs of securing incomes to feed, clothe and house their families
- Suspicion of officialdom and reluctance to sign a document being submitted to Government including fears about checks as to benefits eligibility
- A fatalistic outlook that signing a petition would have no impact on decision makers

Roberts concluded that there are steep socioeconomic gradients in child pedestrian injury mortality. In Britain, children in social class V are over four times more likely to die in a pedestrian motor vehicle collision than are children in social class 1. If the responsibility for implementing strategies for child pedestrian safety rests solely with parents these gradients are likely to persist, at least in part, because the ability to advocate for child safety varies inversely with the need for it.

Research comparing the road safety records of different countries has estimated that if all countries in Europe had the same mortality rates from road traffic injuries as have those with the lowest rates, then nearly 7900 children's lives could be saved every year.[2] The majority would be children from lower socioeconomic income groups.

[1] Roberts, I. 1995 Who's prepared for advocacy? Another inverse care law, *Injury Prevention*, 1: 152-154.
[2] Sethi, D. 2008 European report on child injury prevention, World Health Organisation Europe, Copenhagen.