Editorial

How can we discover what works in the prevention of road traffic crashes?

Road related data are lost in a poorly organised database; reorganising it will be expensive. The car industry should take some of the financial burden

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Published: 2 February 2001

BMC News and Views 2001, **2**:1

Each year worldwide more than a million people die and some ten million people sustain permanent disabilities in road traffic crashes [1]. For people aged under 35 years, road traffic crashes are now the leading cause of death and disablement. Nevertheless, the epidemic of road traffic crashes is only beginning. It is estimated that by the year 2020 road traffic crashes will be the third leading cause of disability-adjusted life years lost worldwide, and the second leading cause in developing countries [2].

An epidemic of this scale demands an appropriate response. Effective strategies must be identified for the prevention of road traffic crashes. The first step must be to find out what we already know about the effectiveness of strategies for the prevention of road traffic crashes by conducting systematic reviews of the available controlled evaluation studies. The Cochrane Injuries Group, an international network operating to prepare, maintain, and promote the accessibility of systematic reviews of the effectiveness of interventions in the prevention, treatment, and rehabilitation of injury, has been established to facilitate this [3]. The Group maintains a register of controlled trials in the prevention, treatment, and rehabilitation of injury to facilitate the preparation and updating of systematic reviews [3].

Finding controlled trials of interventions in the treatment and rehabilitation of injury is no small task, but finding controlled trials in the prevention of road traffic crashes is a major challenge. Search strategies for controlled trials on medical databases can achieve high sensitivity and positive predictive value because terms describing the study methodology are included among the indexing (descriptor) terms. However, road safety databases have a limited range of indexing terms describing study methodology; as a result, the identification of studies with designs that reduce the likelihood of bias (such as controlled evaluation studies) is almost impossible.

TRANSPORT is the largest and most widely used road related database. It includes over 600,000 records from the Transportation Research Information Services (TRIS) database, the International Road Research Documentation (IRRD) database, and the TRANSDOC database of the European Conference of Ministers of Transport. However, finding controlled trials on the TRANSPORT database is extraordinarily difficult. For example, the Urban Safety Project is a prospective controlled trial of area-wide traffic calming in five UK cities [4]. Nowhere in the TRANSPORT database record for this report is there an indication that this is a controlled trial. TRANSPORT includes over 10,000 records on traffic calming and it would be easy to overlook this important study in a search for controlled trials of traffic calming.

How can the retrieval of controlled trials of road safety interventions be improved? First, it can be done by including indexing terms describing *controlled* evaluation studies in road safety database thesauri. The second way is by consistent indexing of the study methodology with the use of these terms. However, methodology indexing terms can be applied only if authors explicitly describe the study design in their reports. Authors can facilitate indexing by taking care to document the study design in the title, abstract, and methods sections of the research

report. Editors can support indexing by insisting on the use of structured abstracts that give details of study methodology.

Prospective indexing of controlled trials of road safety interventions is surely within our reach. Finding the existing controlled trials and re-tagging them will be more demanding. Because of the efforts of the Cochrane Collaboration to re-tag controlled trials of healthcare interventions, thousands of previously inaccessible controlled trials are now available to health professionals. A similar effort by the international road safety community is urgently required. But who will pay for this? In comparison with the burden of disability, funding for road safety research is less than that for almost any other cause of human misery [5]. The obvious source of funding is the industry that will profit from increasing global motorization. In the face of the growing epidemic of road traffic crashes, the world's car manufacturers must take some responsibility for preventing its tragic consequences.

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