Lives and limbs—the other price of modern road transport

As the number of motor vehicles on Algerian roads increases, so does the toll of death and injury. A comparison with Norway and Spain suggests that there is considerable scope for improvement in Algeria if resources can be deployed in a coordinated manner and if an awareness of the scale of the disaster that road accidents represent can be brought home to the public at large.

Road traffic accidents cause death and injury on an immense scale. In many developing countries the trend is still sharply upward, reflecting rapid increases in the numbers of motor vehicles and a failure to increase safety measures correspondingly. This is very much the case in Algeria.

Road accidents in Algeria, 1976–85

A study has been made of statistics on road traffic accidents in Algeria during the period 1976–85. The number of victims has increased in nearly every year (Fig. 1 and 2) and the trend has been significantly upward for both the injured and killed.

The sum of fatal and non-fatal accidents per 100 000 inhabitants increased significantly whereas the mortality rate showed a

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The most suitable parameter of exposure to risk, however, is obtained by taking into account the distance travelled by the vehicles on the roads. Between 1976 and 1985 there was a significant decrease in the numbers of victims per 100 million vehicle-kilometres, again because the traffic was growing more rapidly than the numbers of victims (Fig. 3 and 4).

**International comparisons**

We have compared the data for Algeria with those for Norway and Spain in 1983 (1). The numbers of people injured per 100,000 inhabitants were lower in Algeria than in the other two countries, although it seems that the Algerian figures are underestimates, since the ratio of people...

downward trend. This is explained by a downward trend in the case fatality rate, which is the proportion of cases with a fatal outcome at the sites of accidents.

It should be noted that the numbers of casualties per 100,000 inhabitants give no indication of the degree of exposure and the risk run, which depend on the number of motor vehicles on the roads, the distances they travel, and related factors. If the numbers of casualties per 100,000 registered vehicles are calculated, it emerges that there has been a significant decrease over the study period. This has arisen, of course, because the number of motor vehicles has increased faster than the number of victims. Thus, the increase in the number of vehicles has coincided with a decline in the frequency of accidents involving physical injury.
six times higher than the Norwegian ones. A comparison of mortalities on the same basis indicates the Algerian figures to be about eight times higher than the Spanish ones and fourteen times higher than the Norwegian ones. It should be pointed out that the number of vehicles used in calculating the rates did not include motorized bicycles, for which no information was available.

The numbers of people injured per 100 million vehicle-kilometres were similar in Algeria and Spain but three times lower in Norway. The corresponding numbers of deaths in Algeria were double those in Spain and six times those in Norway (Fig. 6).

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In most developing countries, little has been achieved in the field of preventing road

injured to people killed was only 10:1, whereas the corresponding ratio in Norway and Spain was about 25:1. The picture is reversed when mortality per 100 000 inhabitants is considered, i.e., the Algerian rates are higher than those for Spain and Norway (Fig. 5). It should be noted that the mortality statistics in Norway include the victims who die up to 30 days after accidents, in accordance with the definition of death by accident of the United Nations Economic Commission for Europe, while the criterion for the data from Spain is death within one day of the accident.

When the injury rates per 100 000 vehicles are compared, the Algerian values are about four times higher than the Spanish ones and

Fig. 4. Numbers of persons injured in road accidents per 100 million vehicle-kilometres, Algeria, 1976–85

Fig. 5. Numbers of people killed and injured per 100 000 inhabitants in road accidents in Algeria, Norway and Spain, 1983
accidents because of inadequate resources and an uncoordinated approach to the problem (2). In Algeria there is a clear need for a wide-ranging control programme under a nationally organized body. Accident prevention also calls for social awareness: the fight against tragedy on the roads will be won only if conditions are created to ensure that all citizens feel personally responsible for road safety.

References


Said at the First World Health Assembly

Full support for prevention

I would... like to ask the experts, in the light of my humble experience of health conditions in my own country, to turn their attention more and more to the preventive side of health work. Tuberculosis surely would not spread as it is doing in India, for example, if we had better dwelling-houses, nor would it and other diseases consequent on malnutrition take such a heavy toll of human life if the vast mass of the people were not undernourished. A marked rise in the standard of the peoples of backward countries is, therefore, an essential step towards the building of their national health on a sound foundation. The more prosperous nations, therefore, must give all the help they can to the less favoured countries, if the struggle of the latter for the attainment of better living conditions is to succeed.

—Rajkumari Amrit Kaur, India