

## Short Report

# The neglected epidemic: Road traffic accidents in a developing country, State of Qatar

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The objective of the study is to explore the pattern of road traffic accidents (RTA) and their causes in the State of Qatar. A total of 52 160 RTA, 1130 injuries and 85 fatalities were registered during the year 2000. The data on RTA, injuries and fatalities was obtained from the Traffic Department of the Ministry of Interior, Supreme Council for Planning and Ministry of Public Health. The major cause of traffic accidents in Qatar was careless driving (71%). Relatively there was a more rapid increase in the number of registered vehicles (155%), but accidents were only (61%) in 2000 compared to the year 1983. The majority of victims (53%) were in the age group (10–40) “the most productive class in Society”. Forty-three per cent of the total drivers who died due to RTA were in the age group (10–19) who were unlicensed drivers. In 2000, deaths due to RTA were the third leading cause of death after the diseases of the circulatory system and cancer. In conclusion, it is possible to control the epidemic of road traffic injuries through strict policy interventions, mass media and a national traffic campaign to increase the use of seat belts.

*Keywords:* Road traffic accidents; Driver behaviour; Mortality; Qatar.

### 1. Introduction

Road traffic accidents (RTAs) are a major cause of death and disability globally, with a disproportionate number occurring in developing countries (Murray and Lopez 1997). RTAs are currently ranked ninth globally among the leading causes of disability adjusted life years lost and the ranking is projected to rise to rank third by 2020. About 90% of the disability adjusted life years lost worldwide due to road traffic injuries occur in developing countries (Murray and Lopez 1997, Krug 1999). When comparing European countries, Belgium is seen as having one of the

worst road safety records; 502 road traffic casualties per 100 000 inhabitants and 14 fatalities per 100 000 population (Transport Yearbook, Czech Republic, 2001). In the Arabian Gulf Countries, RTAs are increasingly being recognized as a growing public health problem. The discovery of oil around the middle of the last century has changed many aspects of the life-style in the Bedouin Arabian countries (Bener and Alwash 2002). There was also an explosion in population and vehicle numbers in Gulf countries.

The aim of this study is to describe the pattern of road traffic crashes, injuries and fatalities in Qatar.

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## 2. Subjects and methods

The study included data on registered vehicles, accidents, injuries and deaths from the report of the Supreme Council for Planning, and the Ministry of Interior, Traffic Department. The study was based on RTA data during the period 1983–2000.

## 3. Results

Table 1 shows the trend of RTAs, fatalities and injuries during the period 1983–2000. Over the last two decades, the number of motor vehicles registered has increased by 155% in 2000 compared to 1983. Over the same period, traffic crashes increased by only 61%. Accidents declined sharply to 17% in 2000 from 27% in 1983 when compared to registered vehicles. So although the number of accidents increased during the last decade, injuries and fatalities declined in the year 2000. In 1983, 520 injuries/100 000 population were

reduced to 195, and 38 fatalities/100 000 population reduced to 15 in the year 2000.

Table 2 shows a statistical comparison of RTA fatalities in UK, USA, United Arab Emirates and Qatar. The fatality rate per 100 000 vehicles in Qatar is 28 and is higher than for the developed countries; 11.8 in the UK and 9.1 in the USA. The fatality rate per 100 000 population of Qatar is 14.7, which is similar to the USA (15), but is much higher than the UK (5.7). Finally, during the last decade, RTAs were the third leading cause of death after cardiovascular diseases and cancer in the State of Qatar.

## 4. Discussion

The study showed that RTAs still pose a major public health problem, threatening the quality of life of the Qatari people, although the injuries and fatalities show a declining trend. RTAs in Qatar particularly affected the productive age group and children; 68% in the age group 10–50 years and 22% in the group aged under 10 years. The present

Table 1. Trend of road traffic accidents, fatalities and injuries in Qatar, 1983–2000

Description	Year		
	1983	1993	2000
1) Population	300 279	464 009	578 470
2) Registered motor vehicles	119 144	205 852	303 245
Motorization level (vehicles/1000 population)	396.8	443.6	524.2
3) Accidents	32 382	41 615	52 160
Accidents over registered vehicles (%)	27.2	20.2	17.2
4) Injuries	1560	1472	1130
Injuries per 100 000 population	519.5	317.2	195.3
5) Fatalities	115	84	85
Fatalities per 100 000 population	38.2	18.1	14.7

Table 2. Statistical comparison of road traffic accident fatalities in the UK, USA, United Arab Emirates (UAE) and Qatar

Country and year	UK 2000	USA 2000	UAE 2000	Qatar 2000
<b>Description</b>				
Motor vehicle deaths	3409	41 471	620	85
Vehicle travel (million km)	467 700	2750 000	1997	7278
Registered vehicle	28 890 000	217 028 000	575 929	303 245
Passenger cars	23 196 000	205 102 000	537 918	286 883
Registered population	60 000 000	274 634 000	3108 000	578 470
<b>Death rates</b>				
Fatality per 100 million vehicle km	0.7	1.5	31.0	1.2
Fatality rate per 100 000 population	5.7	15.1	19.9	14.7
Fatality rate per 100 000 vehicles	11.8	19.1	107.7	28.0
Population per vehicle	2.1	1.3	5.4	1.9
Population per car	2.6	1.3	5.8	2.0

study results are consistent with a previous study conducted in the United Arab Emirates (Bener and Alwash 2002), Kuwait (Bener and Jadaan 1992, Bener *et al.* 2003), Saudi Arabia (Bener and Jadaan 1992, Ansari *et al.* 2000, Bener *et al.* 2003). Unlike many fatal diseases, traffic accidents kill people from all age groups including young and middle-aged people in their active years.

An analysis of traffic crashes in Qatar indicated that human factors were a sole or a contributory factor in most RTAs. The major cause of traffic crashes was careless driving behaviour (71%), tailgating (16%) and excessive speed (13%).

'RTA is a neglected health problem' is reported by several authors (Bener and Jadaan 1992, Murray and Lopez 1997, Krug 1999, Ansari *et al.* 2000, Bener and Alwash 2002, Bener *et al.* 2003). Traffic accidents kill more than 1 million people each year and injure tens of millions more. UN statistics show that almost 1.2 million people were killed on the world's roads in 1998 (Krug 1999). In Qatar, most injuries occurred among pedestrians and passengers (57%). People who have never owned a car were at the greatest risk.

## 5. Conclusion

The State of Qatar has witnessed a substantial decrease in the number of road traffic injuries and fatalities in recent years. Nevertheless, a further reduction in crash rates and changes in driving behaviour are required for safety and for a better quality of life in Qatar.

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## Reference

- ANSARI S, AKHTAR F, MADOORAH M and MUTERY, K, 2000, Causes and effects of road traffic accidents in Saudi Arabia. *Public Health*, **114**, 37–39.
- BENER, A., ABU-ZIDAN, F.M., BENSIALI, A.K., AL-MULLA, A.A.K and JADAAN, K.S., 2003, Strategy to improve road safety in developing countries. *Saudi Medical Journal*, **24**, 603–608.
- BENER, A. and ALWASH, R., 2002, A perspective on motor vehicle crash injuries and speeding in the United Arab Emirates. *Traffic Injury Prevention*, **3**, 61–64.
- BENER A and JADAAN, K.S., 1992, A perspective study on road fatalities in Jeddah, Saudi Arabia. *Accident Analysis and Prevention*, **24**, 143–148.
- KRUG, E. (Ed.), 1999, *Injury: A Leading Cause of Global Burden of Disease*. (Geneva: WHO).
- MURRAY, C.J.L. and LOPEZ, A.D., 1997, Alternative projections of mortality and disability by cause 1990–2020, Global Burden of Disease Study. *Lancet*, **349**, 1498–1504.
- TRANSPORT YEARBOOK, CZECH REPUBLIC, 2001. Available online at; [www.mdcz.cz/text/rocnka\\_01/yearbook/html/e651.htm](http://www.mdcz.cz/text/rocnka_01/yearbook/html/e651.htm) (Accessed 10 October, 2003).