

## Voluntary seatbelt usage. Did we reach there yet?

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Some of these guys drive like maniacs trying to shout do one another, so make sure that you have your seatbelt on at all times, is the advice given to all foreign visitors in the Kingdom of Saudi Arabia (KSA).<sup>1</sup> Not surprisingly, KSA loses over 21 billion Saudi Riyals annually due to sharp increase in road traffic accidents.<sup>2</sup> Road traffic accidents are a major cause of morbidity and mortality among young Saudis and plenty of studies in the Kingdom stand witness to this unfortunate truth.<sup>3,4</sup>

Seatbelts were first introduced in 1920 in the United States of America (USA), to keep the occupants in the cars from bumpy rides. By 1970, it was realized that seatbelt restraints protected the driver and the occupants from the severity of injuries. Legislation was then passed for mandatory use. The presence of cars' seatbelt does not mean that the occupants will use it. Seatbelt usage exceeds over 90% in some European countries and in USA up to 86%.<sup>5</sup> The western countries have reached this compliance due to legislation, health education and fines for non users. The objective of this study was to carry out an unobtrusive observation on seatbelt use at 6 different centers in Dhahran and Al-Khobar, KSA and to assess the compliance of seatbelt usage by people who are in the drivers seat at various locations. Six hundred drivers were unobtrusively observed by the investigators. The locations were: entry and exit gate of Saudi Aramco, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, first traffic light on entry into Al-Khobar, the end of Dammam-Al-Khobar highway, Al-Khobar Corniche, entry and exit gate of King Fahd Hospital of the University (KFHU) and entry of Al-Rashed Mall in Al-Khobar. The study was made 3 times weekly, each time, the driver of the third car at the location is the one observed, until the required number was achieved. The percentage of seatbelt users differed at different locations. The voluntary usage of seatbelts ranged from 17-100% with a mean of 56.8%. At Saudi Aramco, the seatbelt usage was 100% while 98% in KFUPM. At these 2 locations the prevalence was highest due to regular checks and penalties levied by the organizations. At other locations the mean usage was 35.75% (range 17-49%) with checkpoints nor penalties if caught in these 2 locations. **Table 1** gives the voluntary usage of seatbelts and their percentages. Every 14 seconds someone is injured

**Table 1** - Voluntary usage of seatbelts (%).

Site	Number of drivers observed	Drivers using seatbelts
Saudi Aramco	100	100
KFUPM	100	98
Al-Khobar City	100	49
Al-Khobar Corniche	100	46
KFHU	100	31
Al-Rashed Mall	100	17

KFUPM - King Fahd University of Petroleum and Minerals, Dhahran.  
KFHU - King Fahd Hospital of the University, Al-Khobar.

in a motor vehicle accident and every 12 minutes someone is killed. Seatbelts are the most effective means of reducing serious injuries and deaths on roads and in hospitals.<sup>6</sup> Seatbelts reduced the total number of injuries by 34%, major injuries by 57%, and minor injuries by 20% and no deaths occurred among the belted group. As early as 1986, Mufti<sup>7</sup> raised the issues of medico legal aspects of seatbelt legislation after the findings that suggested that in Riyadh region only 6.9% of the population used seatbelts. Shawan et al<sup>8</sup> in the Eastern Province found that voluntary usage of seatbelts was only 19.4% in males and 8% in females. At present seatbelt use is mandated by Royal Decree before the new millennium but unfortunately, it appears that the seatbelt usage did not increase nor the severity of injuries due to road traffic accidents decrease. Unobtrusive survey is believed to be one of the better ways to carry out surveys, where unbiased and truthful assessment is needed. The practice of seatbelt usage in organizations like Saudi Aramco and KFUPM of over 98% shows that drivers are disciplined and do not want to be penalized, hence, they routinely use seatbelt restraints as compared to drivers on the streets who flout the mandatory use of seatbelts. People at large should be reminded repeatedly of the benefits of using seatbelts in not only preventing deaths but also reducing severity of injuries to themselves and saving costs from hospital acute care and use the same funds elsewhere for better purposes (such as, improvements of healthcare in communities and the country at large). The question still lingers in the minds of the healthcare professionals that have we carried out enough to promote voluntary use of seatbelts? The answer to this is not satisfactory enough. We are at present not even close to where we should be in making our drivers use seatbelts.

In conclusion, this sample survey indicates that the average use of seatbelts in the east coast of KSA is very low. A multi-modality effort is required to reach a compliance of seatbelt usage to reach international levels. We believe that the following ways could increase the use of seatbelts among the population: 1) Children at school and colleges should be systematically approach and reminded repeatedly on the benefits of seatbelt use. 2). Routine and repeated media (print, radio and television) advertisements to use seatbelt restraints. 3) Hoardings at important and busy intersections on the benefit of seatbelt usage. 4) Repeated road campaigns should be carried out, not only by police personnel but also physicians.

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