The Contribution of Alcohol and Other Drugs Among Fatally Injured Drivers in Quebec: Final Results

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This study presents the final results regarding the contribution of alcohol and other drugs in fatal crashes in Quebec. The data comes from two sources. First, coroner, forensic laboratory and police accident records were matched for 859 fatally injured drivers of passenger vehicles deceased between April 1999 and December 2002. Among those fatally injured drivers, both blood and urine samples were obtained in 541 cases (63%). Second, two roadside surveys were conducted in August 1999 and 2000. Representative of the Quebec driving population, the survey sample was distributed proportionately to the number of fatal crashes per time of day (eight 3-hour periods) and day of the week (seven days). During both daytime and nighttime, a total of 11,952 drivers participated in the two roadside surveys among which 11,574 provided a breath sample (96.8%) and 5,931 a urine sample (49.6%).

The data collected allowed two different analyses: a case-control study (alcohol: blood/breath, other drugs: urine/urine) and a comparison of responsibility in the accident (case-case approach) between drug cases and drug-free cases. Drugs under scrutiny included alcohol, cannabis, cocaine, benzodiazepines, opiates, barbiturates, amphetamines and PCP.

Among fatally injured drivers, drugs were found in the following proportions of the urine samples: cannabis: 18.5%, cocaine: 7.6%, benzodiazepines: 9.7%, PCP: 0.9%, opiates: 1.7%, barbiturates: 0.2% and amphetamines: 0.9%. Alcohol was found in 35.5% of blood samples.

As for the drivers who participated in the roadside survey, drugs were found in the following proportions of their urine samples: cannabis (6.7%), benzodiazepines (3.6%), cocaine (1.1%), opiates (1.2%), barbiturates (0.5%), amphetamines (0.1%) and PCP (0.03%).

Coroner and police accident report files have been matched. Next steps require to perform the case-control analysis as well as the responsibility analysis. Both will be completed by the end of 2003.

Keywords - Alcohol use; Crashes; Drug use; Epidemiology; Surveys