

0568 TREND ANALYSIS OF DRUG-RELATED MOTOR VEHICLE CRASHES IN THE UNITED STATES

M Zhu*, S Zhao, T M Rice, J H Coben *Correspondence: Department of Community Medicine and Injury, West Virginia University, Control Research Center, PO Box 9151 Morgantown, WV 26506-9151, USA*

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Objective Drugs other than alcohol contributed to 17% of 19 220 driver fatalities in the USA in 2008. The specific drugs involved in these cases, and changes in their use over time, have not been previously reported. We examined trends of drug use by drivers in fatal crashes from 1999 through 2008.

Methods We analysed the Fatality Analysis Reporting System, which contains information on all fatal traffic crashes occurring on public roads in the United States. The following drug categories and specific drugs were identified using the first listed drug: narcotics (hydrocodone/oxycodone, methadone, heroin, morphine), depressants (benzodiazepines, barbiturates), stimulants (cocaine, amphetamines, methamphetamine) and cannabis. Negative binomial regression was used to examine the rate of driver fatal crash involvement.

Results The overall drug-related fatal crash rate increased from 1.28 per 100 000 in 1999 to 1.88 per 100 000 in 2008, an average annual increase of 3.9%. The most rapid increases were seen with hydrocodone/oxycodone (17.7% per year, 95% CI 14.4% to 21.0%) and methadone (17.4% per year, 95% CI 13.1% to 21.9%). Annual increases were also found with benzodiazepines (5.0%, 95% CI 3.5% to 6.2%), cocaine (2.5%, 95% CI 0.5% to 4.5%), cannabis (5.1%, 95% CI 4.0% to 6.1%). Heroin, morphine, amphetamines, or methamphetamines were not associated with significant trends. Barbiturates were found to decrease an average of 5.7% per year (95% CI to 2.6% to 8.7%).

Conclusions This study found notable increases in drug use by drivers involved in fatal collisions. Substances with the significant increases included prescription drugs (hydrocodone/oxycodone, methadone, benzodiazepines) and cannabis.