

## Lessons from the past

The National Center for Health Statistics (NCHS) recently announced that poisoning had passed motor vehicle (MV) crashes as the leading cause of injury death in the USA in 2008.<sup>1</sup> The NCHS also noted that nearly 90% of poisoning deaths were due to drugs, which have driven the overall poisoning mortality increase since at least 1980. Much of the increase in drug poisoning mortality was due to prescription drugs, especially opioid painkillers. Similar trends related to prescription opioids have been noted in other developed countries.<sup>2 3</sup>

Preliminary mortality data from 2009 suggest an additional large decline in MV crash deaths,<sup>4 5</sup> while emergency department data suggest a continued increase in prescription drug overdoses in 2009.<sup>6</sup> It is likely that drug poisoning alone now causes more deaths than MV crashes in the USA.

These reported and anticipated changes represent a major milestone in injury prevention. A hundred years ago, falls were the leading mechanism of injury death in the USA.<sup>7</sup> Beginning around 1910, MV crash death rates began to rise rapidly as personal MVs proliferated, surpassing other causes of injury death such as poisoning, fires, burns and drowning. By 1925 MV crash deaths had surpassed falls deaths to become the leading cause of injury death. MV crashes remained the leading cause for almost a century until the re-ranking in 2008.

The highest age-adjusted MV death rate on a population basis was reached in 1937. The decline in MV crash deaths after 1937 was one of the crowning achievements in public health in the USA during the 20th century.<sup>8</sup> It was accomplished despite a rapid increase in the number of miles driven and the number of vehicles on the road. A key factor contributing to the decrease was federal legislation in 1966 that strengthened government efforts to regulate vehicles and highways. By the 1970s a steep decline in rates was underway. Enactment and enforcement of traffic safety laws, as well as public education, contributed to further declines. The latest dip in MV crash deaths has been attributed partly to the economic recession of 2008, with larger declines occurring in rural parts of the country.<sup>5</sup>

The increase in drug overdose deaths over the last 20 years has been the worst injury epidemic since MVs came on the scene. The overdose epidemic is largely due to widescale adoption of prescription opioid painkillers. Physicians have used these drugs in greater volumes each year since 1990, and each year millions of Americans report using them without prescriptions and for the desirable feelings or 'highs' they cause. Since 1999 the states that have seen the largest increase in drug overdose mortality rates have been those with the highest poverty rates,<sup>9</sup> and relative increases have been greatest in rural counties.<sup>10</sup> Economic factors that might have contributed to the most recent decline in MV crash deaths might also be contributing to the increase in drug poisoning deaths.

Unfortunately, to date no federal legislation has been passed that has had a beneficial effect on drug overdose rates comparable with that of the Highway Safety Act and similar bills in 1966. States have been slow to enact laws addressing the overdose problem that match the effectiveness of the safety belt, child safety seat and alcohol-impaired driving laws that have been instrumental in MV and traffic safety.<sup>11 12</sup> Federal and state responses to drug overdoses have focused largely on better education for prescribers and patients. Given our experience with other types of injury, including MV crashes, and based on experience with overdose prevention thus far, such an educational focus is unlikely to be effective unless it is combined with other strategies.

The problem of prescription drug overdoses calls for a vigorous policy response at multiple levels.<sup>9</sup> States need to use their existing authority to regulate providers and to monitor prescriptions for controlled substances to identify and correct inappropriate and illegal prescribing. States also need to enact new legislation to address abuses such as unethical pain clinics, also known as 'pill mills'. Economic measures available to public and private insurers should be used to hold prescribers accountable for their prescribing practices. The federal government has an important role in identifying drugs and formulations with high risk/benefit ratios and unethical or illegal drug marketing practices. The federal government can also determine which policies are effective in preventing overdoses while at the same time making sure patients who legitimately need treatment have access to it and receive treatment that has been proven to be both safe and effective. As the history of injury prevention has shown us, we need a comprehensive, evidence-based and multi-sectoral approach to be effective in decreasing deaths due to drug overdose.

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**Disclaimer** The views and opinions of authors expressed herein do not necessarily reflect the official positions of the Centers for Disease Control and Prevention or those of the United States government, and shall not be used for advertising or product endorsement purposes.

**Competing interests** None.

**Provenance and peer review** Not commissioned; internally peer reviewed.

Published Online First 30 December 2011

*Injury Prevention* 2012;18:70. doi:10.1136/injuryprev-2011-040294

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*Inj Prev* 2012 18: 70 originally published online December 30, 2011  
doi: [10.1136/injuryprev-2011-040294](https://doi.org/10.1136/injuryprev-2011-040294)

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