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U.S. motorists more likely to be in a fatal road crash on Election Day

Toronto, ON (September 16, 2010) – A new study in the journal *Chance*, a publication of the American Statistical Association, led by Sunnybrook Health Sciences Centre researcher, Dr. Donald Redelmeier, suggests that U.S. motorists are prone to road crashes on a presidential election day compared to the same hours on a non-presidential election day.

Using road safety information for the entire United States from the National Highway Traffic Safety Administration for November 4, 2008 (the day President Barack Obama was elected) and the two control days one week before (October 28, 2008) and one week after (November 11, 2008), Dr. Redelmeier and his colleague, Robert J. Tibshirani, from Stanford looked at the number of fatal crashes on each day during the 12 hours of polling.

Their analysis observed a total of 145 individuals involved in a crash during Election Day, equivalent to about 12 per hour. In contrast, they observed a total of 216 individuals during the two control days, equivalent to about nine per hour. Hence, the risk was one-third higher on Election Day and equal to an absolute increase of 27 deaths during this one election.

The study looked not only at the risk on Obama's election, but also found similar findings with almost all previous US Presidential elections (starting at President Jimmy Carter in 1976). For the nine total presidents, the average election yields about a 19% increase in risk or a total of about 25 extra deaths. This makes Election Day more dangerous than New Years Eve.

Says Redelmeier, "The increased risk could be the result of more driving, mobilization of unfit drivers, heightened emotions, rushing and unfamiliar pathways. Another more subtle contributor could be decreased law enforcement as the police, themselves, are busy voting and also do not want to interfere with the democratic process."

The authors indicate that these risks could be mitigated by simple measures such as public safety messaging by electioneers who encourage people to get out and vote. Other potential solutions might include subsidized taxis and free public transit as occurs in some places on New Years Eve. A different approach might be tamper-proof remote voting as occurs in Oregon.

Redelmeier, who is also a Professor of Medicine and Physician at Sunnybrook (Canada's largest trauma centre) states, "We wanted to call attention to the need for more road safety using a recurring event of global importance. Because road deaths are a daily event, one irony is that the epidemic seems invisible unless a surge allows people to realize the large baseline numbers."

The study was supported by the Canada Research Chair in Medical Decision Science and a grant from the Canadian Institutes of Health Research. The results of the study are published in the September 16, 2010 issue of *Chance*.