# *Editorial*

## Driven to distraction: cellular phones and traffic accidents

Driver-education courses conducted in the 1970s required the audience of prospective drivers to watch a film that placed the viewer behind the wheel of a car for a simulated drive through a generic city. Five minutes into the film most members of the audience (especially those whose life expectancy was 75, not 81) noticed a pretty, blonde woman enter their right peripheral visual field. Seconds later there was a screech, a crunch and a virtual jolt. The take-home message: driver distraction leads to driver error and collision. Keep your hands on the wheel, your eyes on the road and your mind on the drive.

So, the question now arises, does talking on a cellular telephone while driving lead to accidents? It's an important question: the rate of new cell phone subscriptions in the United States now exceeds the nation's birth rate.[1] An estimated 15% of drivers in Toronto have cell phones in their cars;[2] this jumps to 38% in Finland,[3] where, when surveyed, 42% of such drivers considered themselves to have increased their risk of a crash at some time while using a phone in the car, with 25% reporting a decrease in their attention to the road and other traffic while on the phone.[3]

With statistics such as these, the question of safe driving and cell phone use is unambiguous for some regulatory bodies. Brazil, Australia, Israel and Portugal have established laws against using a cell phone while driving, basing their decision on public opinion and extrapolations from driver-simulation studies. Other countries are less decisive, deferring to science rather than to opinion.

This is a tricky question for science to answer and an easy one for glib critics and for supporters of the telecom industry to attack (see page 1581). In this issue Donald Redelmeier and Robert Tibshirani report on one of the more convincing studies conducted to date. They used a case–crossover method to look at the cellular telephone billing records of drivers who had had accidents to compare their phone behaviour immediately before the time of the accident with their phone behaviour during a comparable time period on a day preceding the accident. The risk of having a collision when using a cell phone was 4 times higher than when the cell phone was not being used.[1] Similarly, a small case–control study comparing the cell phone use of 100 randomly selected drivers (mainly men) who had been involved in a motor vehicle accident with that of 100 controls who had not been in an accident demonstrated that cell phone use for more than 50 minutes a month compared with cell phone use of 50 minutes or less a month statistically increased the risk of having an accident 4-fold.[4]

Drivers who fail to exercise good judgement must be regulated to do so, for cell phones are just the beginning. Computers, fax machines and DVD screens are also starting to clamor for dashboard space. We need to regulate the use of cell phones and other driver-distracting devices. This is a no-brainer.

### References

1. Redelmeier DA, Tibshirani RJ. Association between cellular-telephone calls and motor vehicle collisions. *N Engl J Med* 1997;336:453-8.
2. Min ST, Redelmeier DA. Car phones and car crashes: an ecologic analysis. *Can J Public Health* 1998;89:157-61.
3. Lamble D, Kauranen T, Laakso M, Summala H. Cognitive load and detection thresholds in car following situations: safety implications for using mobile (cellular) telephones while driving. *Accid Anal Prev* 1999;31:617-23.
4. Violanti JM, Marshall JR. Cellular phones and traffic accidents: an epidemiological approach. *Accid Anal Prev* 1996;28:265-70.