

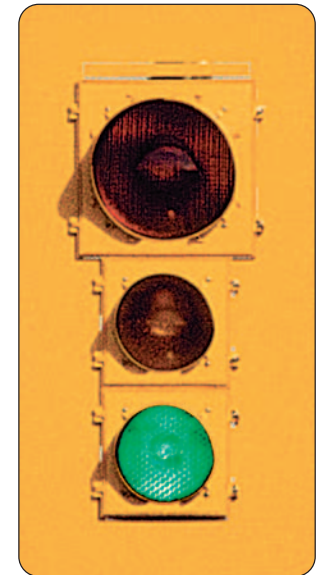
# 2002

**ANNUAL REPORT**

ROAD SAFETY VISION

# 2010

Making Canada's Roads the Safest in the World



**CCMTA • CCATM**  
CANADIAN COUNCIL OF MOTOR TRANSPORT ADMINISTRATORS  
CONSEIL CANADIEN DES ADMINISTRATEURS EN TRANSPORT MOTORISE



Transport  
Canada

Transports  
Canada

**Canada**

The adoption of Road Safety Vision 2010 by the Canadian Council of Motor Transport Administrators (CCMTA) and the official endorsement of its stated targets by all Ministers of Transportation and Highway Safety in the fall of 2000 provided Canada's road safety stakeholders with targets against which to develop new strategies and measure intervention efforts. Previous Road Safety Vision annual reports introduced the program, described Canada's action plan and reviewed successful road safety initiatives implemented in Canada and internationally. This report outlines the benchmark data for the national target as well as each of the sub-targets.

Road Safety Vision 2010 is Canada's national road safety plan. It is the successor to our first national road safety initiative, Road Safety Vision 2001, which was officially launched in 1996.

The goal of Road Safety Vision 2010 is to make our roads the safest in the world.

All levels of government, as well as several key public and private sector partners, support the renewed plan. Road Safety Vision 2010 emphasizes the importance of partnerships and the use of a wide variety of initiatives that focus on road users, roadways and motor vehicles. The strategic objectives of Road Safety Vision 2010 are to:

- Raise public awareness of road safety issues •
- Improve communication, cooperation and collaboration among road safety agencies •
  - Enhance enforcement measures •
- Improve national road safety data quality and collection •

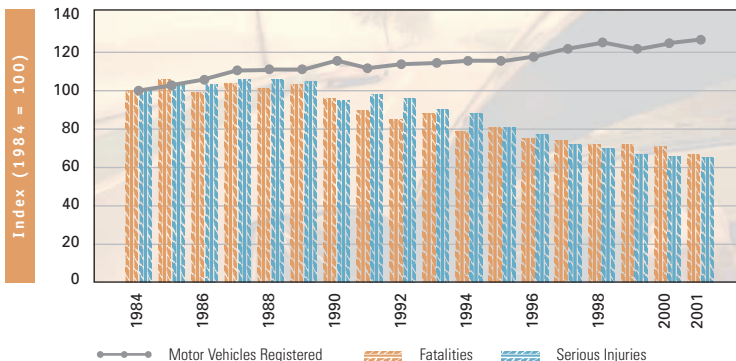


## ROAD SAFETY: THE CRITICAL TRANSPORTATION ISSUE IN CANADA

The good news is that safety on our roads is improving. Since 1984, fatalities resulting from traffic collisions have decreased by 33% and serious injuries have declined by 35%. These positive changes have come about despite substantial increases in the population (26%), in the number of licensed drivers (34%) and in the number of motor vehicles registered (26%). The death toll for 2001 (the most recent year for which numbers are available) was the lowest in almost 50 years.

However, in spite of these dramatic improvements, deaths and injuries resulting from traffic collisions continue to be the major transportation safety problem in Canada. In 2001, 2,778 road users were killed in traffic collisions and almost 17,000 suffered serious injuries (defined as requiring hospitalization for 24 hours or more). Collectively, almost 224,000 road users, or more than 600 per day, became casualties who suffered some form of physical injury.

### Fatalities and serious injuries continue to decline despite gradual increases in the number of vehicles on our roads



Traffic collisions cause more than 90% of all transportation-related fatalities. Among young road users (aged 15-24 years), traffic collisions account for more than twice the number of fatalities compared to the three other leading causes of death combined (tumours, diseases of the circulatory system and respiratory diseases). The societal costs of traffic collisions are enormous. Estimates of economic losses alone range from \$10 billion to \$25 billion, depending on the calculation method used.

### GEOPOLITICS AT WORK

Canada's vast geography, low population density and sometimes harsh climate combine to make a safe and well-functioning road transportation system of vital interest to virtually all Canadians.

Responsibility for road safety initiatives is shared between the federal and provincial/territorial levels of government. The federal government, through Transport Canada, provides national leadership by conducting national traffic collision data collection and analysis, research, program development and evaluation, and knowledge transfer. Transport Canada also develops motor vehicle safety regulations under the authority of the Motor Vehicle Safety Act and interprovincial truck and bus regulations under the authority of the Motor Vehicle Transport Act. The federal government, through the Department of Justice, is also responsible for the Criminal Code of Canada, under which impaired and dangerous drivers are charged and prosecuted.

The death toll for 2001 was the lowest in almost 50 years.

The provincial and territorial governments have direct jurisdiction over highways, driver and vehicle licensing, the rules of the road and vehicle inspection. Most traffic rules are contained in provincial and territorial legislation and regulations, which are then enforced by police partners. Enforcement includes widespread efforts focusing on such diverse activities as inspection of commercial trucks and buses, promotion of seat belt usage and reduction of impaired driving. Provinces and territories are also responsible for driver improvement initiatives such as demerit point programs and for the administration of sanctions such as driver's licence suspensions, vehicle impoundment and ignition interlock programs for drinking and driving infractions.

Jurisdictional governments also conduct research and develop new road safety programs. Road safety is promoted through provincial and territorial public education and marketing campaigns, working hand in hand with police, safety organizations and community volunteer groups. With their responsibility for the construction, maintenance and improvement of highway infrastructure, provinces and territories use road design and traffic management to help lower collision risk.

Municipalities are becoming increasingly involved in road safety through road maintenance, traffic engineering, police services and injury prevention efforts.

In addition to collaborative efforts among these levels of government, a number of important non-governmental partners play significant roles in the successful delivery

of road safety initiatives, both regionally and nationally.

All of these stakeholders are working together to overcome the problems presented by Canada's size and its interlocking web of jurisdictions using multi-tiered and multi-disciplinary approaches to road safety.



### ROAD SAFETY VISION 2001: CANADA'S GLOBAL CHALLENGE

In the early 1990s, Canada had two national programs in place to improve road safety. The National Occupant Restraint Program (NORP) targeted the increased use of seat belts and the proper use of child restraints, and the Strategy to Reduce Impaired Driving (STRID) aimed at reducing the incidence of drinking and driving. Despite these national programs and other efforts across Canada, the pace of road safety improvements had slowed. To accelerate the rate of progress, the CCMTA adopted Road Safety Vision 2001 in 1996, and the Council of Ministers Responsible for Transportation and Highway Safety endorsed it that same year.



© Alcohol Countermeasure Systems

The goal of Road Safety Vision 2001 was for Canada to have the safest roads in the world. The four strategic objectives – raising awareness of road safety issues; improving communication, cooperation and collaboration among road safety agencies; enhancing enforcement measures; and improving national road safety data collection and quality – were proclaimed to provide guidance to stakeholders in the development of national road safety strategies.

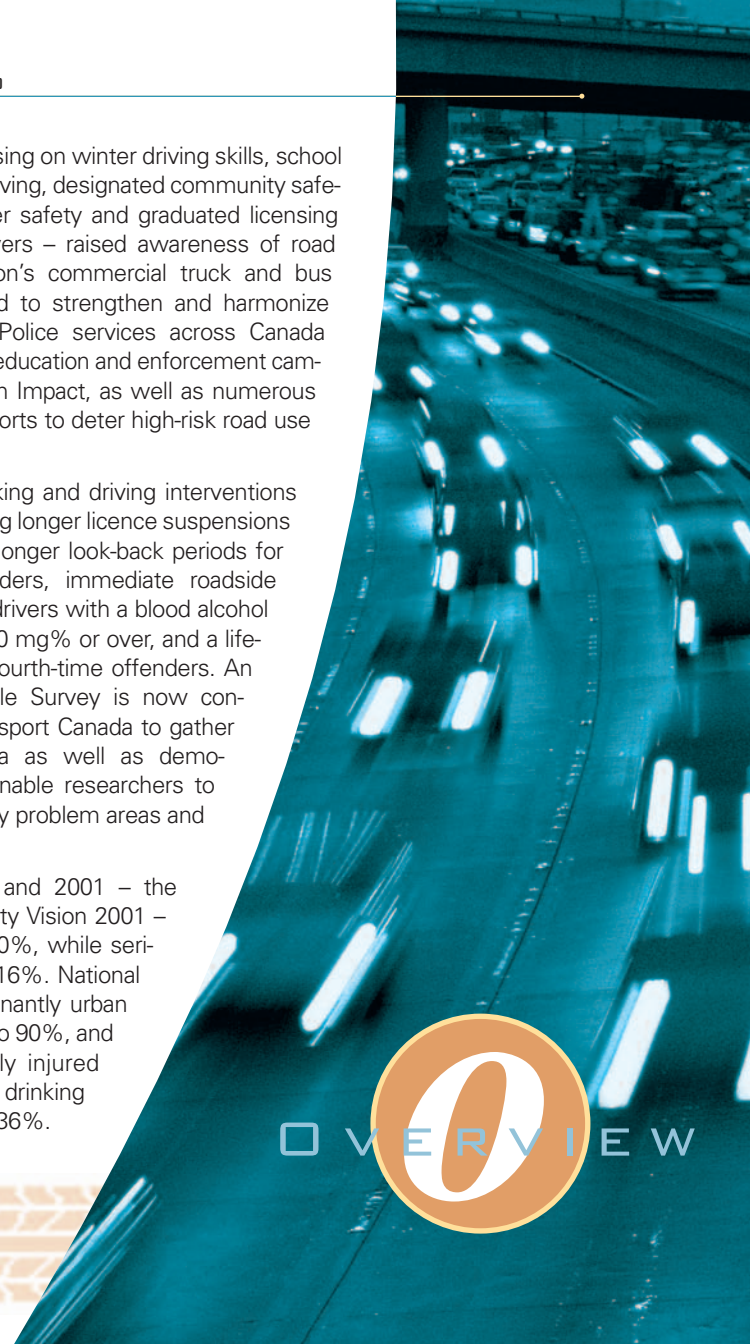
The NORP 2001 and STRID 2001 programs incorporated the main elements of the programs that existed prior to the inception of the Road Safety Vision initiative. The goal of NORP 2001 was to achieve 95% seat belt use by all drivers and passengers of light-duty vehicles by 2001, with a particular emphasis on increasing child restraint usage. The objective of STRID 2001 was to reduce the percentage of fatalities and serious injuries involving drinking drivers by 20%.

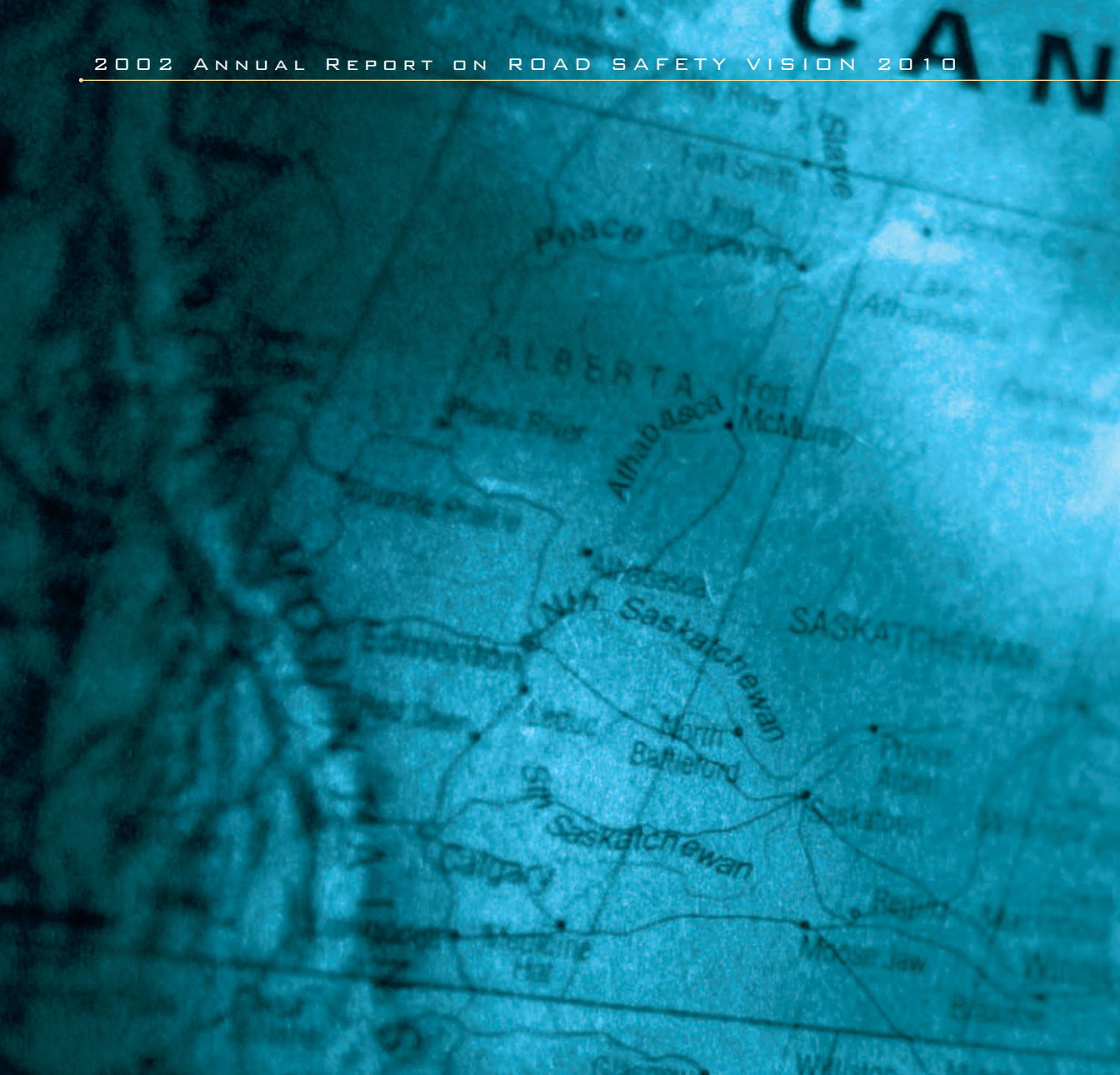
During the six-year time frame of Road Safety Vision 2001, a number of initiatives were implemented to support the four strategic objectives of the Vision. The nature and scope of these programs varied by jurisdiction.

Safety campaigns – focusing on winter driving skills, school bus safety, aggressive driving, designated community safety zones, child passenger safety and graduated licensing schemes for novice drivers – raised awareness of road safety issues. The nation's commercial truck and bus stakeholders collaborated to strengthen and harmonize their safety standards. Police services across Canada organized national public education and enforcement campaigns, such as Operation Impact, as well as numerous focused enforcement efforts to deter high-risk road use behaviour.

A number of tough drinking and driving interventions were introduced, including longer licence suspensions for drinking and driving, longer look-back periods for identifying repeat offenders, immediate roadside licence suspensions for drivers with a blood alcohol concentration (BAC) of 80 mg% or over, and a life-time ban on driving for fourth-time offenders. An ongoing Canadian Vehicle Survey is now conducted on behalf of Transport Canada to gather vehicle kilometrage data as well as demographic information to enable researchers to clearly identify road safety problem areas and recommend solutions.

Overall, between 1996 and 2001 – the time frame of Road Safety Vision 2001 – fatalities decreased by 10%, while serious injuries declined by 16%. National seat belt use in predominantly urban areas increased slightly, to 90%, and the percentage of fatally injured drivers who had been drinking decreased from 42% to 36%.



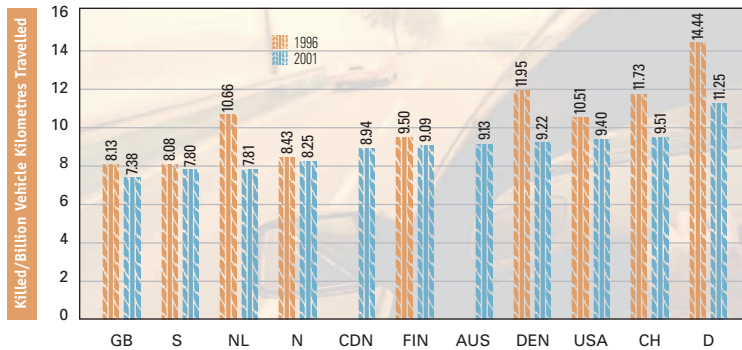




## INTERNATIONAL COMPARISONS

Canada's inaugural national road safety plan was successful, as indicated by the lower death and serious injury tolls. However, a review of the top-ranked countries in this field shows that they, too, were making considerable progress. In 2001, Canada ranked fifth among member countries of the Organisation for Economic Co-operation and Development (OECD) based on fatalities per billion vehicle kilometres travelled. Ahead of Canada were Great Britain, Sweden, the Netherlands and Norway. In fact, similar comparisons of fatality rates during 1996 show that all of the world's safest countries made steady progress during the time frame of Road Safety Vision 2001.

### The leading OECD member countries continue to raise the bar as annual fatality rates gradually decrease



Note: GB = Great Britain; S = Sweden; NL = the Netherlands; N = Norway; CDN = Canada; FIN = Finland; AUS = Australia; DEN = Denmark; USA = the United States; CH = Switzerland; and D = Germany; 1996 figures were not available for Canada and Australia.

It became evident that Canada would need more than a vision to achieve its goal of having the world's safest roads. An examination of the key elements of road safety programs among the top-ranked OECD countries (Table 1) revealed that most of them had set ambitious quantitative road safety targets.

To achieve these targets, the OECD's safest nations are continuing to develop innovative initiatives. **Great Britain** has set up a year-round road safety public awareness campaign called THINK, which focuses on child safety, vulnerable road users, drinking and driving, seat belts, teenagers and speed reductions, among other issues. The most useful aspect of the THINK campaign is that it raises awareness of many road safety issues together under one umbrella to maximize the impact of the overall road safety message.

**Sweden's** long-term goal – called Vision Zero – is that no one be killed or seriously injured in road traffic crashes. Sweden's current action plan focuses on special safety measures for the most dangerous roads and safer traffic movement in built-up areas, emphasizing road user responsibility, safer cycling conditions and compulsory use of studded winter tires. It places greater responsibility on road traffic system designers and includes the development of alternative forms of financing for new roads.

**The Netherlands** has embraced a coordinated approach to road safety to achieve its specific objectives. The Dutch plan involves greater sharing of costs and responsibilities among the national, provincial and municipal governments as well as the private sector. National targets have been broken down into regional targets. Specific activities cited for these coordinated efforts include modifying all road user behaviour, improving road and motorway infrastructure, improving driver training, enhancing police enforcement and reinforcing the "safety culture."

In 2001, Canada's fatality rate was the fifth best among OECD member countries.

All of the OECD's safest countries have ambitious long-term road safety targets.

Like Sweden, **Norway** has embraced the Vision Zero concept. The Norwegian plan targets safer roads through removal of roadside hazards, improved curves, rumble strips on centre lines, improved winter operations (by, for example, enhancing signposting and providing up-to-the-minute information on road conditions) and increased road safety audits. Norway is also targeting measures to regulate driver behaviour, such as reducing speed limits on the most dangerous roads, banning the use of hand-held cell phones while driving, imposing a BAC limit of 20 mg% and increasing the demerit points for driving offences; enforcement through more inspections of commercial vehicles, increased emphasis on seat belt use, drinking and driving and speeding, and the use of automatic speed controls; improved traffic education through compulsory training for novice drivers, better training for currently licensed drivers, compulsory first aid training and improved motorcyclist training; and a greater emphasis on knowledge building through research and analysis.

**Finland** has made hand-held cell phone use illegal while driving, is introducing legislation that will require all cyclists to use safety helmets and is extensively promoting the use of reflective clothing by pedestrians after nightfall.

**Australia** hopes to achieve its target by continuing to focus on proven measures such as reducing the incidence of drinking and driving, improving compliance with speed limits, and increasing seat belt

TABLE 1

## Road Safety Targets • Selected OECD Countries

COUNTRY	NATIONAL TARGETS
Great Britain	A 40% reduction in the number of people killed or seriously injured in traffic collisions by 2010, and a 50% reduction for children (≤16 years).
Sweden	A 50% decrease in the number of road users killed in 2007 compared with 1996.
The Netherlands	30% fewer road deaths and 25% fewer injuries requiring hospital care in 2010 compared with comparable 1998 totals.
Norway	200 or fewer road user fatalities by 2012 (2001 total = 275).
Canada	A 30% decrease in the average number of road users killed or seriously injured during 2008-2010 compared with average figures during 1996-2001.
Finland	250 or fewer traffic fatalities by 2010 (2001 total = 433).
Australia	A 40% decrease in the number of road user fatalities per 10,000 inhabitants by 2010 compared with the 1999 rate.
Denmark	A 40% reduction in the number of road users killed or seriously injured by 2012 compared with 1998 totals.
United States	A 20% reduction in total road user fatalities and injuries by 2008 compared with 2000 figures and a 50% reduction in commercial vehicle related deaths and injuries by 2010.
Switzerland	300 or fewer road user fatalities by 2010 and a maximum of 4 fatalities/100,000 inhabitants (2001 figures = 544 fatalities and 7.44 fatalities/100,000 inhabitants).
Germany	None.

and child restraint use. More recent measures include matching speed limits to road conditions, promoting driver fatigue management, and encouraging the use of in-vehicle intelligent transportation systems.



Road safety measures in **Switzerland** have focused on increasing seat belt use and helmet wearing, traffic calming (using roundabouts), improving police enforcement and enhancing public education and crash prevention campaigns. Impending legislation will reduce the legal BAC limit to 50 mg%, introduce more stringent penalties for repeat offenders and enable police to administer breath tests without prior cause. Switzerland has also adopted a long-term Vision Zero concept.

Although **Germany** does not have national road safety targets, it has carried out road safety campaigns in recent years that have enabled it to remain among the safest countries in the world. Major intervention efforts have focused on drinking and driving, young drivers, motorcyclists and rural road crashes.

What does all of this international activity to improve road safety mean for Canada? Clearly, if we are going to achieve our goal of having the safest roads in the world, we must redouble our efforts.

**Denmark** has focused on road engineering initiatives to achieve its targets. It has undertaken a systematic identification and elimination of grey and black spots on its roadways, subjected all new road construction to safety audits, pilot tested road safety audits on some of its roads, introduced public education campaigns and improved signage for road construction zones.

**The United States** is focusing considerable enforcement efforts on increasing seat belt use and decreasing drinking and driving. Four additional problem areas were identified as major contributors to fatalities: single vehicles that run off the road, high speeds, problem intersections, and crashes involving pedestrians and cyclists. Numerous road user and traffic engineering countermeasures have been introduced to help curtail these problems.



With ongoing road safety improvements by the world's other safest nations, we must redouble our efforts to achieve our goal of having the safest roads in the world.



## ROAD SAFETY VISION 2010: THE NEXT PHASE

The success of Road Safety Vision 2001 spurred the CCMTA to create a national road safety successor plan. Road Safety Vision 2010 extends nine years, from 2002 until 2010. The goal remains unchanged: to have the safest roads in the world. The renewed plan also retains the four strategic objectives, as well as enhanced targets for STRID and NORP. These program elements were strengthened with the introduction of an ambitious national target, as well as several broad-based sub-targets that focus on a number of problem areas that had not previously been addressed on a national scale.

The national target calls for a 30% decrease in the average number of road users killed or seriously injured during the 2008-2010 period compared with 1996-2001 average figures.

The sub-targets call for:

- A 95% rate of seat belt wearing and proper use of appropriate child restraints by all motor vehicle occupants.
- A 40% decrease in the number of fatally or seriously injured unbelted occupants.
- A 40% decrease in the percentage of road users fatally or seriously injured in crashes involving drinking drivers.
- A 40% decrease in the number of road users fatally or seriously injured on rural roadways (defined as roads where the speed limit is 80-90 km/hr).
- A 20% decrease in the number of road users killed or seriously injured in speed- or intersection-related crashes.
- A 20% decrease in the number of road users killed or seriously injured in crashes involving commercial vehicles.
- A 20% decrease in the number of young drivers/riders (those aged 16-19 years) killed or seriously injured in crashes.
- A 30% decrease in the number of fatally or seriously injured vulnerable road users (pedestrians, motorcyclists and cyclists).
- A 20% decrease in the number of road users fatally or seriously injured in crashes involving high-risk drivers.

In 2002, a framework of accountability was established for the renewed vision. Task forces, under the auspices of the CCMTA, assumed ownership of the various sub-targets and are developing and implementing initiatives to achieve them. These task forces comprise representatives from the federal and provincial/territorial governments, the police community and non-governmental stakeholders with a strong interest in traffic safety. The CCMTA provides annual progress reports to the Council of Deputy Ministers Responsible for Transportation and Highway Safety, which reports to the Council of Ministers.

## BASELINE FIGURES AND 2010 TARGETS

The baseline period for the Road Safety Vision 2010 target and sub-targets is from 1996 until 2001 – the time frame of the initial road safety plan, RSV 2001. The benchmark data, against which the success of the various targets of the renewed Vision will be measured, are the average number of fatalities and serious injuries that occurred as a result of traffic collisions during that period. The targets of Road Safety Vision 2010 are expressed as average decreases in fatalities and serious injuries during the 2008-2010 period, rather than simply as fatality and serious injury totals during 2010, to provide a more reliable indication of the safety improvements that occur during the decade. Table 2 provides the baseline figures and target objectives for the national target as well as for all quantitative sub-targets for which benchmark data are available.

To reach our national target, we must cut annual fatalities by almost 900 and reduce serious injuries by about 5,500 by 2010.

As Table 2 shows, significant reductions in fatalities and serious injuries must occur in order for the sub-targets to be achieved. However, there is a considerable amount of overlap among the sub-targets. So, for example, if a substantial decrease occurs in the number of unbelted occupants killed, then a secondary improvement will likely also occur in the number of young driver fatalities, in the percentage of drinking driving fatalities, and so forth.

### The National Target

During the 1996-2001 period, an annual average of 2,966 road users were killed and 18,244 were seriously injured. To achieve the national target of Road Safety Vision 2010, annual traffic fatalities will have to decrease by almost 900 and serious injuries (which require hospitalization for at least 24 hours) will have to decline by almost 5,500.

### The Sub-Targets

**Occupant Restraint Use:** Road Safety Vision 2010 has two sub-targets that focus on increasing restraint use. The National Occupant Restraint Program 2010 aims to achieve 95% seat belt use by all occupants, as well as 95% proper use of child restraints that are appropriate for the child's height and weight. This target has changed slightly from its predecessor: it now seeks to achieve this high level of restraint use among all motor vehicle occupants, not only among occupants of light-duty vehicles.

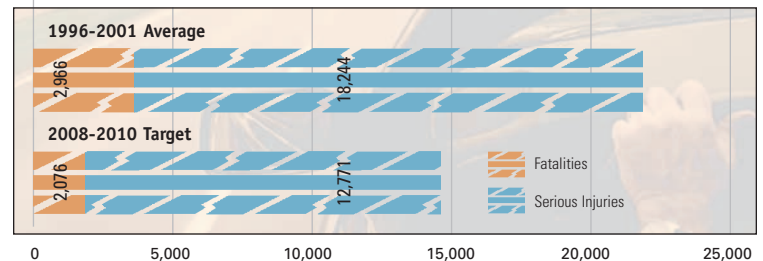
A Transport Canada study has found that for every percentage

TABLE 2

Baseline Data & Target Objectives for National Target and Sub-Targets	FATALITIES		SERIOUS INJURIES	
	1996-2001	2008-2010	1996-2001	2008-2010
	BASELINE FIGURE	TARGET	BASELINE FIGURE	TARGET
National Target	2,966	2,076	18,244	12,771
<b>Sub-Target Area</b>				
Unbelted Occupants	887	532	2,903	1,742
Drinking Driving	33%*	19.8%	18.7%**	11.2%
Speed	499	399	1,772	1,418
Intersections	808	646	7,225	5,780
Rural Roadways	1,410	848	6,567	3,940
Commercial Vehicles	571	457	1,707	1,366
Young Drivers/Riders	166	133	1,117	894
Vulnerable Road Users	610	427	3,434	2,404
High-Risk Drivers (See note)				

\* Estimates of the percent of road user fatalities involving drinking drivers on public roads during the 1996-2001 period.  
 \*\* Estimates of the percent of drivers in serious crashes involving alcohol on public roads during the 1996-2001 period. These percentages exclude drivers from BC, YT & NT. Note: High-risk driver (HRD) baseline figures will be provided once jurisdictions have identified crash victims who meet the HRD criteria.

Achieving or surpassing the targets of Road Safety Vision 2010 will mean fewer than 2,100 fatalities and fewer than 13,000 serious injuries



point increase in seat belt use over the baseline year (which was 68% in 1989), an average of 23 fewer occupants died each year and 515 fewer



were injured.<sup>1</sup> Using similar estimates of effectiveness, Table 3 shows the estimated number of additional lives saved and serious injuries avoided if restraint use gradually increases from the current baseline level to the NORP 2010 objective of 95% by 2010.

**TABLE 3**

Estimates of Occupant Lives Saved and Serious Injuries Avoided by Achieving NORP 2010 Target	
Average Seat Belt Usage Rate 1996-2001	89.4%
Estimated Additional Lives Saved by 2010 with 95% Seat Belt Use	715
Estimated Additional Serious Injuries Avoided by 2010 with 95% Seat Belt Use	1,377*

\* Assumes that the level of injuries avoided was the same for seriously injured occupants as for all injured occupants.

The second occupant restraint sub-target seeks to achieve a 40% decrease in the number of unbelted fatally and seriously injured occupants through increased restraint use. While national restraint use surveys show that approximately 90% of motorists observed in urban areas and about 85% of those surveyed in rural areas were wearing seat belts, national collision data reveal that approximately 40% of all fatally injured occupants and almost 20% of those seriously injured were not wearing seat belts at the time of the collision. Although the large majority of victims sustain their injuries on rural, undivided roads with posted speed limits of 80-90 km/hr, non-use of seat belts among fatally and seriously injured occupants is equally prevalent, on a percentage basis, in both urban and rural areas.

The CCMTA NORP 2010 Task Force is responsible for monitoring the progress of and recommending strategies for achieving the occupant restraint use sub-targets. The core elements of the NORP 2010 initiative focus on the development of seat belt and child restraint wearing strate-

gies, legislation, enforcement and awareness campaigns, and public education and marketing initiatives.

Some jurisdictions have conducted seat belt or child restraint use surveys in selected communities to monitor usage rates. Quebec, for example, carried out a night-time seat belt use survey during 2002. The results, which will be available in 2003, should prove interesting because the survey monitored restraint use during the highest-risk road use period.

All jurisdictions have public education and marketing campaigns to increase restraint use. Some jurisdictions have removed or amended the exemptions for non-use of seat belts and introduced or increased fines and demerit points for non-use of seat belts or child restraints. In Quebec, the law regarding car seat use for child passengers, is based on sitting height criteria, while Ontario has introduced legislation requiring drivers to ensure that children meeting specific height and weight criteria use appropriate booster seats.

Police forces in most jurisdictions carry out seasonal seat belt use enforcement and awareness campaigns. Each fall, a national campaign, called Operation Impact, emphasizes the importance of key road safety issues. The 2002 Operation Impact campaign focused on seat belt wearing, drinking and driving, and vulnerable road users.

**Non-use of seat belts is especially a problem among youthful occupants of pickup trucks on rural roads.**

<sup>1</sup> The study estimated occupant fatalities and injuries avoided due to increased seat belt use among light-duty vehicle occupants during the 1990-1995 period. D.E. Stewart et al., *Estimation Methodologies for Assessing Effectiveness of Seat Belt Restraint Systems and National Occupant Restraint Program*, Transport Canada, TP13110E, 1997.

Alcohol use is common among most age groups of drivers killed on Canadian roads.

In 2002, Transport Canada conducted the first national seat belt use survey in Canada's rural areas. The overall observed seat belt usage rate, at 85%, was encouraging. However, some problem areas were also evident. The level of restraint use among male occupants of light trucks, at about 77%, is a cause for concern, as is the level among younger (25 years or under) male occupants of light trucks, at slightly less than 70%. Transport Canada is currently evaluating possible ignition interlock approaches to promoting seat belt use, such as requiring a time delay before unbelted drivers would be able to put their vehicle into gear.

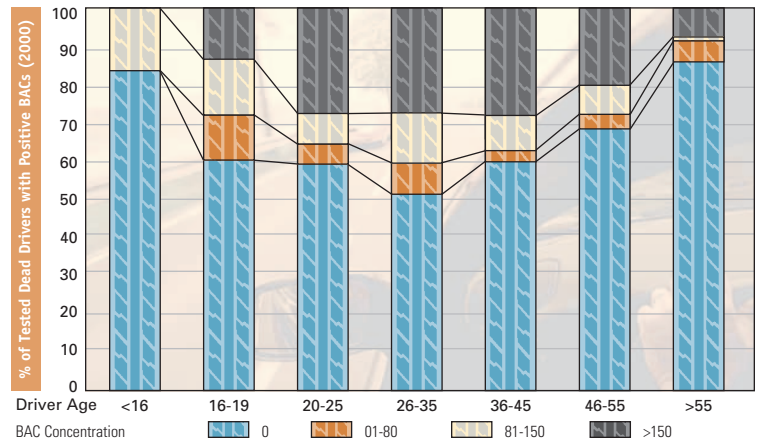
The Child Passenger Safety Training Coalition, which consists of road safety professionals from the public and private sectors, has developed a program for caregivers that highlights the importance of proper child restraint use. St. John Ambulance Canada trains and certifies instructors to deliver this program, and DaimlerChrysler has agreed to sponsor the certification process, as well as run their own child restraint use clinics within their dealerships.

**Driving While Impaired:** The Strategy to Reduce Impaired Driving 2010 sub-target calls for a 40% decrease in the percentage of road users fatally or seriously injured in crashes involving drinking drivers. Coroner data for the year 2000 show that alcohol was a factor in approximately 30% of all road user fatalities. Among fatally injured drivers who were tested for alcohol, 36% had been drinking. According to the Traffic Injury Research Foundation, alcohol was a factor for an estimated 19% of drivers

involved in serious injury crashes during 2000.

The CCMTA STRID 2010 Task Force, which is responsible for recommending strategies to achieve this sub-target and for monitoring progress, has identified six key elements for the development of initiatives: education and awareness, enforcement, legislation, health promotion, linkages among agencies, and research. STRID 2010 is also addressing impairment from drugs other than alcohol, as well as fatigue, and distraction from activities such as cell phone use.

### Drinking and driving results in catastrophic consequences for drivers of all ages



Source: Traffic Injury Research Foundation.

Activities that were undertaken in various jurisdictions during 2002 to support the program elements of the STRID 2010 initiative included an array of public education and awareness campaigns, with a particular emphasis on younger drivers and their responsibilities; selective traffic enforcement activities (e.g., Checkstop, RIDE, Roadwatch, CounterAttack); the introduction of administrative licence suspensions and lengthier

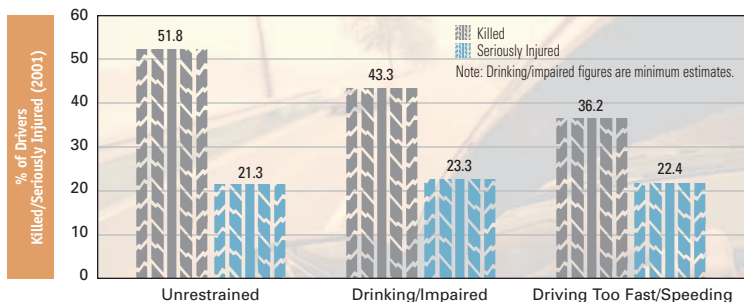


licence suspensions for recidivists; vehicle impoundment and ignition interlock programs; mandatory remedial assessment and education or treatment before licence reinstatement; the establishment of inter-agency committees to review the impacts of impaired driving and to develop enforcement measures and prevention strategies; research on the extent of drug use among drivers; and evaluations of drinking and driving countermeasures.

More detailed information regarding activities in support of the NORP 2010 and STRID 2010 sub-targets, as well as those pertaining to high-risk drivers, speed and intersection safety and young drivers, can be found on the CCMTA's Web site at [www.ccmata.ca/english/publicationandreports/publicationandreports-reportcentre.html](http://www.ccmata.ca/english/publicationandreports/publicationandreports-reportcentre.html).

**Rural Road Safety:** The target for rural roadways is a 40% decrease in the number of road users fatally or seriously injured in collisions on rural roads. Almost half of all road users that are killed in crashes and approximately 40% of those seriously injured are victims of collisions on undivided rural roadways where the posted speed limits are 80-90 km/hr. Many of these fatalities involve alcohol, non-use of seat belts and excessive or inappropriate speed. The latest crash data show that

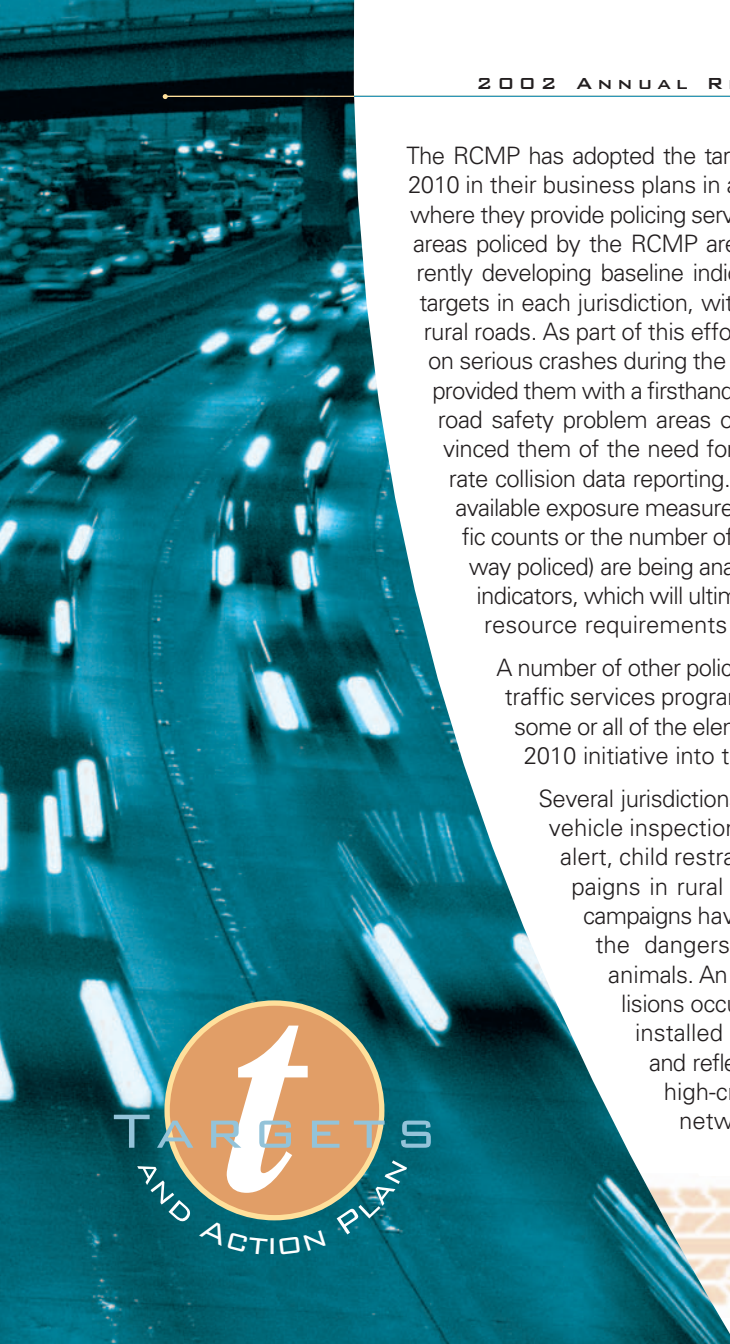
### Drivers killed or seriously injured in single-vehicle crashes on rural roads frequently exhibit high-risk behaviour



more than half of all drivers killed in single-vehicle crashes on rural roads were unbelted. Transport Canada's 2002 national survey of rural seat belt use found particularly low usage rates among young (25 years old or under) occupants of light trucks.

For these reasons, the NORP 2010 and STRID 2010 task forces have jointly assumed responsibility for developing initiatives to achieve this sub-target. Transport Canada is currently reviewing trends in the data on serious crashes on rural roadways and is developing recommendations for strategies to help make rural road travel safer. The strategies being considered focus on seven areas: (1) better identification of safety problems through black spot analysis and road safety audits; (2) speed management programs that ensure uniform application of speed limits for similar conditions, as well as targeted enforcement programs; (3) trauma management systems (e.g., emergency medical services, roadside call boxes and in-vehicle GPS locators); (4) improved road design and operations (e.g., intersection lighting, traffic control devices and passing lanes); (5) the development of enforcement strategies and public education campaigns (e.g., rural seat belt and child restraint use education and surveys and rural impaired driver enforcement programs); (6) intelligent transportation systems (e.g., speed advisory systems, intersection approach warning and on-board vehicle systems); and (7) improved data (e.g., increased use of geographic information systems).

Rural roads are often unforgiving for motorists who engage in high-risk driving.



The RCMP has adopted the targets of Road Safety Vision 2010 in their business plans in all provinces and territories where they provide policing services. A large majority of the areas policed by the RCMP are rural. The RCMP are currently developing baseline indicators for the Vision's sub-targets in each jurisdiction, with a particular emphasis on rural roads. As part of this effort, they are examining data on serious crashes during the 1996-2001 period. This has provided them with a firsthand understanding of the major road safety problem areas on rural roadways and convinced them of the need for comprehensive and accurate collision data reporting. The crash information and available exposure measures (such as daily vehicle traffic counts or the number of kilometres of primary highway policed) are being analyzed to develop risk-based indicators, which will ultimately be used to determine resource requirements in designated regions.

A number of other police forces are reviewing their traffic services programs with a view to adopting some or all of the elements of Road Safety Vision 2010 initiative into their business plans.

Several jurisdictions have administered motor vehicle inspection, public education, animal alert, child restraint and seat belt use campaigns in rural communities. In addition, campaigns have raised awareness about the dangers of collisions with large animals. An estimated 45,000 such collisions occur annually. One jurisdiction installed continuous rumble strips and reflective markings on selected high-crash segments of its road networks.

**Speed- and Intersection-Related Collisions:** Recent crash data show that about 17% of all road users killed annually were travelling at inappropriate or excessive speeds, and approximately 25% died in collisions at intersections. Intersections on urban streets, defined as streets where the speed limit is 60 km/hr or less, are particularly dangerous. Forty-seven percent of all people killed and 57% of those seriously injured in intersection crashes incurred their injuries at intersections on urban streets.

The sub-target calls for a 20% decrease in the number of road users killed or seriously injured in such crashes. The CCMTA Speed and Intersection Safety Management Task Force is responsible for developing initiatives to achieve this sub-target. A survey conducted by the Task Force in 2002 revealed that a number of jurisdictions have done work to increase the public's awareness and understanding of speed-related issues.

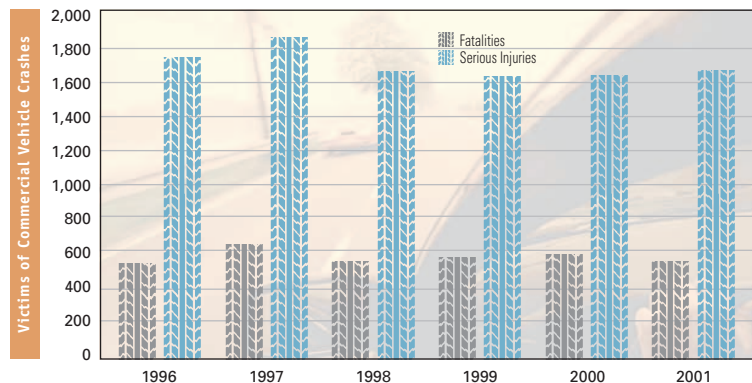
For instance, research has been undertaken to explore the motivation behind unsafe driving practices. Public education campaigns have increased driver awareness of the risks of unsafe driving. Police services have conducted traffic enforcement campaigns that focus on aggressive drivers, speeders and drivers who disobey traffic signals. In some jurisdictions, vehicle-activated digital speed displays are being used in conjunction with police enforcement to reduce speeding. Some jurisdictions utilize photo radar as a deterrent to speeders at such high-risk locations as school zones, playgrounds and construction sites.

Innovative education initiatives have put the spotlight on seniors' safety at intersections, adult and youth crossing guard programs, and public awareness messages that focus on pedestrians and motorists. Running red lights at intersections is a growing problem, which some provinces have addressed by installing cameras at high-volume and high-risk intersections. Studies evaluating the impact of the intersection safety camera programs on collisions will be completed in late 2003. A number of provinces have upgraded signage, traffic light configurations, and traffic lanes at problem intersections in an effort to improve safety.

**Commercial Vehicle Safety:** Despite the fact that ever-increasing amounts of goods are transported by commercial carriers, the share of serious collisions involving commercial vehicles has held steady over the years. On average, crashes involving commercial vehicles account for approximately 20% of all traffic fatalities and 10% of all serious injuries each year. The driver of the other vehicle is more often at fault in fatal crashes. However, in crashes involving serious injuries, commercial and non-commercial vehicle drivers are equally at fault. To address this fairly significant victim toll, Road Safety Vision 2010 calls for a 20% decrease in the number of road users killed or seriously injured in crashes involving commercial vehicles.

The most noteworthy initiatives carried out during the past year to support the commercial vehicle sub-target were the approval of two revised National Safety Code Standards, which govern safe commercial vehicle operation. Canada's federal, provincial and territorial transport

**Fatalities and serious injuries resulting from commercial carrier crashes have remained relatively stable despite steady increases in the amount of goods transported**



ministers endorsed a proposal to amend the hours of service standard for commercial vehicle drivers. This revised standard will reduce the maximum driver workday by 12.5%, reduce the maximum daily driving hours by 18.8% and increase daily off-duty time by 25%.

The proposed federal regulation (relating to hours of service for interprovincial carriers) was published in the *Canada Gazette* in February 2003.

There was also recognition by the ministers that additional research is needed in the area of fatigue management. The governments of Quebec and Alberta and Transport Canada, through its Transportation Development Centre, are currently involved in a number of pilot projects in this area.

The ministers also approved the National Safety Code Standard on motor carrier safety ratings. The standard will require jurisdictions to assign a rating to truck and bus carriers based on a number of safety performance indicators, including collisions and traffic violations. The revised standard is being recommended as the basis for amendments to federal, provincial and territorial regulations. The proposed federal regulation was published in the *Canada Gazette* in May 2003.

CCMTA is currently revising the national standards for cargo securement and trip inspection. A national public awareness campaign, called Share the Road, is being developed to alert drivers of passenger vehicles to avoid certain areas around

**Shorter workdays for drivers and better monitoring of motor carrier safety performance will make commercial vehicle transportation safer.**



Young drivers, aged 16-19 have more than five times the risk of being killed in a traffic collision per kilometre of travel than the rest of the driving population.

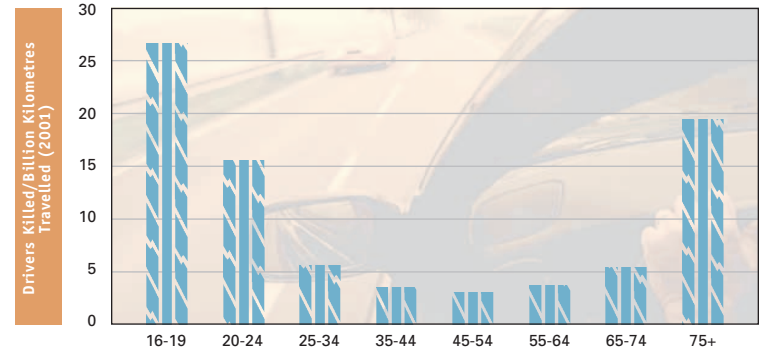
tractor-trailers, which are effectively blind spots for the truck operators. A number of jurisdictions have increased their complement of enforcement personnel to identify unsafe commercial vehicles through roadside inspections. In addition, some jurisdictions are creating comprehensive new driver training programs or enhancing existing courses to make commercial vehicle transportation safer.

**Young Drivers:** Young drivers or riders, aged 16-19, are consistently over-represented in victim statistics. They make up approximately 5% of the licensed driver/rider population but 10% of fatally injured drivers and about 13% of those that are seriously injured. The Road Safety Vision 2010 sub-target for this group is to achieve a 20% reduction in the number of crash-related deaths and serious injuries.

The principal initiative to achieve this sub-target is the implementation of graduated licensing programs, which are currently in place in nine jurisdictions encompassing more than 90% of Canada's young or novice drivers. Evaluations have shown that the restrictions inherent to graduated licensing programs – such as no late-night driving, zero BAC, and a requirement to drive with a licensed adult – have already scored successes. In Ontario, a study is currently determining the impact that its graduated licensing program had on reducing crashes among young drivers and motorcyclists during the five-year period (1995-1999) following the introduction of the program.

Despite the positive results of graduated licensing programs,

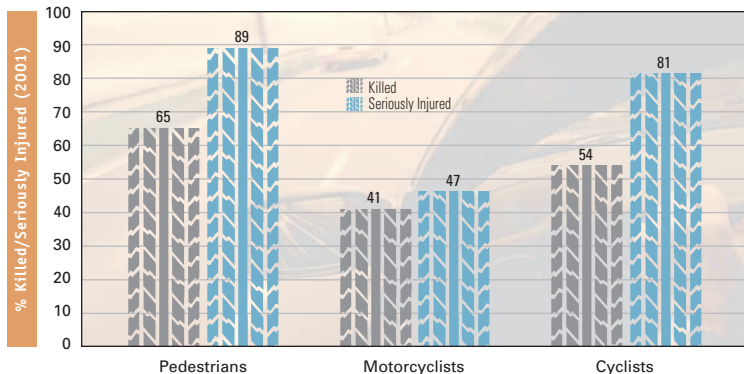
## Young drivers are at the greatest risk of being killed



it is still worth noting that two-thirds of young fatally and seriously injured drivers are 18- and 19-year-olds, who have likely been through these programs. To reduce crash rates among younger drivers, a number of jurisdictions supplement their graduated licensing programs with focused education and enforcement campaigns that emphasize the social unacceptability and consequences of high-risk driving behaviour.

**Vulnerable Road Users:** Road Safety Vision 2010 aims to achieve a 30% decrease in the number of fatally or seriously injured vulnerable road users (pedestrians, motorcyclists and cyclists). This group includes several high-risk subgroups. Among fatally injured pedestrians, older people (65 years or older) are over-represented. This age category of pedestrians is expected to grow considerably during the next 30 years. Among seriously injured pedestrians, young people (15 years or younger) are similarly over-represented. Among fatally injured pedestrians, approximately 25% had consumed alcohol before being struck, and most of these had BACs higher than 80 mg%. The number of motorcyclists killed in crashes has increased by more than 25% since 1996. Collectively, vulnerable road users account for approximately 20% of traffic fatalities and serious injuries.

## The majority of vulnerable road user fatalities and serious injuries occur on urban streets ( $\leq 60$ km/hr)



No national initiatives are currently in place to address vulnerable road user safety. However, a number of provincial and territorial activities are focusing on research, education and awareness, enforcement and road infrastructure.

Research efforts include a comprehensive analysis of collisions involving pedestrians and cyclists to gain a better understanding of the causes and identify possible remedial actions from a road engineering perspective. Stakeholders in different jurisdictions are also reviewing national infrastructure design guidelines to assist both motorists and vulnerable road users, conducting surveys of cyclist helmet wearing rates, and performing comparative assessments of both pedestrian behaviour and motorist behaviour toward pedestrians.

In partnership with police services, a number of jurisdictions have conducted public education and awareness programs that target pedestrians and cyclists. Some have introduced material on vulnerable road user safety into school curriculums, promoted safe cycling and helmet wearing, or passed bicycle helmet use laws.

Police enforcement activities have focused on jaywalking pedestrians and cyclists at controlled intersections, enforcement of helmet wearing laws for cyclists, and more severe penalties for motorists who disobey crossing guards.

Road infrastructure improvements have included the replacement of pedestrian crosswalks with traffic signals, the installation of travel lanes for cyclists on urban streets, and the development of traffic calming policies.

**High-Risk Drivers:** Road Safety Vision 2010 calls for a 20% reduction in the number of road users fatally or seriously injured in crashes involving high-risk drivers. Motorists who exhibit the most dangerous behaviours, often in combination, are deemed high-risk drivers. They include those who do not wear seat belts, drink and drive, drive at unsafe speeds or run red lights or stop signs. Research has shown that while 3-4% of the driving population exhibits high-risk behaviour, these drivers account for approximately 12% of fatalities and 8% of serious injuries.

The CCMTA's High-Risk Driving (HRD) Task Force recently developed a uniform definition of high-risk drivers, so that all jurisdictions could more easily identify these individuals in their databases. They were defined as drivers that have been involved in three or more distinct events (a traffic violation, a Criminal Code offence or a reportable collision) within a two-year period; drivers who refuse to provide a breath sample; or drivers convicted of a repeat offence (including driving while prohibited or disqualified).

Intersections in urban areas are particularly dangerous.

Jurisdictions are now attempting to use this definition to assess the size of their high-risk driving population, as well as the rate of that group's involvement in collisions. Once these populations have been identified, the Task Force plans to develop a set of countermeasures, including an interjurisdictional records exchange.

A number of jurisdictions are currently carrying out research, public education and marketing, legislative, and enforcement and awareness initiatives in an attempt to decrease high-risk behaviour. Research activities include a pilot study on 24-hour licence suspensions, a study on the impact of traffic congestion in stimulating stress and aggressive driving behaviour, and the establishment of a high-risk commercial drivers' workshop to monitor the behaviour of these drivers.

Multimedia public education campaigns have focused on aggressive and unsafe driving as well as drinking and driving. Jurisdictions have introduced legislation enabling police to automatically impound, for 48 hours, vehicles involved in street racing. A number of jurisdictions have extended the look-back window for alcohol-related convictions from five to ten years. Targeted traffic enforcement programs that are aimed at dangerous moving violations – such as speeding, following too closely, unsafe lane changes and disobeying traffic control devices, as well as street racing – have been launched in a number of jurisdictions.

## Other Activities

Beyond the strategies that are being cooperatively developed and implemented by all levels of government and key public and private sector agencies under the auspices of the CCMTA, other important activities are also being carried out by road safety stakeholders to advance the cause of road safety in Canada.

Transport Canada is continually working to introduce new regulations to make vehicles safer. A regulation governing lower universal anchorage systems (which enable child seats to be more firmly attached to vehicles) recently came into effect. Work is now being conducted on frontal-impact occupant protection and side-impact protection regulations, both of which would benefit a large number of occupants involved in these types of serious collisions.



The motor vehicle manufacturing industry is voluntarily improving vehicle crash avoidance capabilities and occupant protection through the enhancement of existing technologies and the introduction of innovative new technologies. Notable advancements include restraint systems with load limiting seat belts, automatic collision notification systems, airbag systems with occupant size discrimination controls, tire inflation monitors, night vision and adaptive cruise control systems.

The Transportation Association of Canada recently published a number of reports that call for the incorporation of explicit safety considerations into road design. The development of revised guidelines for conducting road safety audits and safer road building practices, such as rumble strips and passing lanes on two-lane highways, will improve the safety of the road infrastructure.

Police services-driven public education and enforcement initiatives such as Operation Impact, held during the Thanksgiving weekend in October each year, and National Road Safety Week, held before the Victoria Day weekend in May, are proving successful at raising awareness of road safety issues among the enforcement community and the public alike.

### Looking Ahead to 2010

Canada's road safety targets are ambitious. They have to be, if we are going to achieve our goal of having the safest roads in the world.

The overall national target of Road Safety Vision 2010 calls for a 30% decrease in the average number of road users killed or seriously injured during the 2008-2010 period compared with 1996-2001 average figures. During the nine-year period immediately prior to the adoption of RSV 2010 and its targets, fatalities and serious injuries decreased by approximately 23% and 29%, respectively. These recent road safety improvements are a clear indication that the targets of Road Safety Vision 2010 are achievable.

However, for RSV 2010 to be successful, more must be done to support its four strategic objectives. We must build on the momentum. Collaborative strategies must be implemented on a national scale to address such targeted areas as unbelted motorists, drinking drivers, rural roads and vulnerable road users. It is imperative that existing partnerships be enhanced and new ones be forged. A recent national survey found that fewer than 5% of Canadians had heard of the Road Safety Vision 2010 initiative. Transport Canada and a number of jurisdictions are increasing awareness of the Vision and its objectives through new partnerships with selected health organizations and municipalities.

Achieving our vision of having the safest roads in the world can be accomplished through the ongoing efforts of all partners involved in this initiative and active buy-in by all Canadians. It will take plenty of work, but it's worth it. Safer roads will benefit everyone.



The CCMTA ([www.ccmta.ca](http://www.ccmta.ca)) is a non-profit organization comprising representatives of the provincial, territorial and federal governments of Canada, which, through a collective consultative process, makes decisions on administration and operational matters dealing with licensing, registration and control of motor vehicle transportation and highway safety.



## TO CONTACT CCMTA REPRESENTATIVES, CALL:

### ALBERTA

Driver Safety, Research and Traffic Safety Initiatives  
Alberta Transportation • Phone: (403) 427-8901

### BRITISH COLUMBIA

Traffic Safety Programs • Insurance Corporation of British Columbia  
Phone: (866) 661-6651

### MANITOBA

Driver and Vehicle Licensing • Department of Transportation and  
Government Services • Phone: (204) 945-8194

### NEW BRUNSWICK

Motor Vehicle Branch • Department of Public Safety  
Phone: (506) 444-2339

### NEWFOUNDLAND AND LABRADOR

Traffic Safety Programs • Department of Government Services and Lands  
Phone: (709) 729-2519

### NORTHWEST TERRITORIES

Road Licensing and Safety • Department of Transportation  
Phone: (867) 873-7406

### NOVA SCOTIA

Road Safety Programs • Service Nova Scotia and Municipal Relations  
Phone: (902) 424-3323

### NUNAVUT

Community Government and Transportation • Phone: (867) 360-4614

### ONTARIO

Safety Policy and Education Branch • Ministry of Transportation  
Phone: (416) 235-4050

### PRINCE EDWARD ISLAND

Highway Safety Operations • Department of Transportation  
and Public Works • Phone: (902) 368-5211

### QUÉBEC

Vice-présidence à la sécurité routière • Société de l'assurance  
automobile du Québec • Phone: (418) 528-3600

### SASKATCHEWAN

Traffic Safety Program Evaluation • Saskatchewan Government  
Insurance • Phone: (306) 775-6182

### YUKON

Research and Regulatory Projects • Department of Community  
and Transportation Services • Phone: (867) 667-5756

### TRANSPORT CANADA

Road Safety Programs • Road Safety and Motor Vehicle Regulation  
Directorate • Phone: (613) 998-1991

### CANADIAN COUNCIL OF MOTOR TRANSPORT ADMINISTRATORS

2323 St. Laurent Blvd. Ottawa, ON • Phone: (613) 736-1003

The text of this publication may be reproduced without permission provided the source is credited.

© Her Majesty the Queen in Right of Canada, represented by the Minister of Transport, February 2004

ISBN 0-662-34707-2 • Catalogue No.: T45-1-2002-1E • TP 13347 E



ROAD SAFETY VISION 2010