

The Official Newsletter of the Canadian Association of Road Safety Professionals

THE SAFETY NETWORK ***LE RÉSEAU-SÉCURITÉ***

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2013, Issue 2

Pedestrian Safety

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How walkable is your neighbourhood?

When I moved back to my hometown back in 1999, before we started a family and before starting a new career in road safety, I never gave a thought to the 'walkability' of my neighbourhood. While I live on a quiet crescent, there are no sidewalks and some drivers certainly pass our house at a good clip. When our children were young, we would never dream of letting them out in front of the house unattended. Seeing the world through their eyes, suddenly I become aware of all sorts of hazards in our neighbourhood. I was also struck by the thought – how walkable is my neighbourhood? How often do I walk for pleasure or walk to the nearest shopping mall to do 'an errand'?

This issue of the Safety Network examines the issue of pedestrian safety and coincides with the Second UN Global Road Safety Week to be held May 6 – 12, 2013 which will be dedicated to this important topic. Requested by the UN General Assembly, the week will draw attention to the urgent need to better protect pedestrians worldwide, generate action on the measures needed to do so, and contribute to achieving the goal of the Decade of Action for Road Safety 2011-2020 to save 5 million lives.

In recent years, there has been a shift in the way that road safety practitioners, urban planners, traffic engineers and public health officials view pedestrians, with an increased focus on their needs and vulnerabilities. The World Health Organization has recommended a road safety paradigm shift, stating that the 'vulnerability of the human body should be a limiting design parameter for the traffic system and speed management should be central'. Safer road conditions will mean that more people can and will utilize healthier modes of transportation, including walking and cycling, addressing sedentary life style issues. All of us should be doing our part to make our communities more 'walkable'.

I trust that you will enjoy the variety of articles in this edition of the newsletter that touch current work being done in pedestrian safety across Canada and worldwide. We encourage your feedback and hope that you will consider how you can do your part to make your community more 'walkable'.

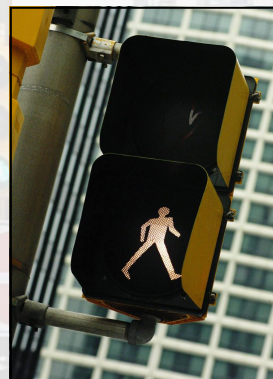
Jeff Suggett
Associated Engineering



Entrance to the neighbourhood I live in.

Est-il facile de se déplacer à pied dans votre quartier ?

Lorsque j'ai déménagé en 1999 pour retourner dans ma ville natale, avant d'avoir commencé une famille et une nouvelle carrière en sécurité routière, je n'avais jamais pensé aux déplacements à pied dans mon voisinage. J'habite dans un croissant tranquille, mais il n'y a pas de trottoirs et il y a même des conducteurs qui passent devant notre maison à une vitesse considérable. Lorsque nos enfants étaient petits, nous n'aurions jamais pensé à les laisser jouer en face de la maison sans surveillance. En voyant le monde à travers leurs yeux, j'ai commencé tout à coup à devenir plus conscient de toutes sortes de dangers dans notre quartier. J'ai aussi été frappé par cette pensée : est-ce qu'il est facile de se déplacer à pied dans mon voisinage ? Combien de fois est-ce que je marche par plaisir ou pour aller faire des commissions à pied au centre commercial le plus proche ?



Ce numéro du Réseau-Sécurité présente un tour d'horizon sur la sécurité des piétons et il coïncide avec la deuxième semaine mondiale de la sécurité routière des Nations Unies qui se tiendra du 6 au 12 mai, 2013 et qui sera dédiée à ce sujet si important. Comme il a été demandé par l'Assemblée Générale de l'ONU, cette semaine va attirer une attention particulière au besoin urgent de mieux protéger les piétons partout dans le monde, va susciter de l'action à l'égard des mesures nécessaires pour réussir et va aider à atteindre l'objectif du Plan mondial pour la décennie d'action pour la sécurité routière 2011-2020 de sauver 5 millions de vies.

Au cours des dernières années, il y a eu un changement de la part des professionnels de la sécurité routière, des urbanistes, des ingénieurs en circulation et des fonctionnaires de la santé publique dans la manière de voir les piétons, avec une approche spéciale sur leurs besoins et vulnérabilités. L'Organisation Mondiale de la Santé a recommandé un changement de paradigme de la sécurité routière en affirmant que « la fragilité du corps humain devrait tenir lieu de paramètre de conception restrictif pour les règles de la circulation, et il est essentiel de gérer la vitesse. » Avoir des conditions routières plus sûres veut dire que plusieurs personnes pourront et vont utiliser des modes de transport plus sains, y compris la marche et le vélo, ce qui aidera aussi à résoudre, du moins en partie, les problèmes causés par un style de vie plus sédentaire. Nous avons tous la responsabilité de faire notre part pour qu'on puisse mieux se déplacer à pied dans nos communautés.

J'espère que vous apprécierez la variété des articles dans cette édition du bulletin qui présente le travail actuel qui se déroule en Canada et dans le monde entier par

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Nous avons tous la responsabilité de faire notre part pour qu'on puisse mieux se déplacer à pied dans nos communautés.

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rapport à la sécurité des piétons. Nous vous encourageons à nous envoyer vos commentaires et nous espérons que vous allez considérer comment vous pourriez collaborer à favoriser de meilleures conditions pour les transports actifs dans votre quartier.

Jeff Suggett
Associated Engineering

Exploring Nova Scotian Pedestrian Safety with Child Safety Link – IWK Health Centre

Le Child Safety Link (CSL) est un programme de prévention des traumatismes basé au IWK Health Centre à Halifax en Nouvelle-Écosse. Il a pour mission de réduire l'incidence et la sévérité des traumatismes chez les enfants et les adolescents en Nouvelle-Écosse, au Nouveau-Brunswick et à l'Île-du-Prince-Édouard.

Le CSL agit en tant que plateforme d'informations (ex. articles, web, actions communautaires) sur les sujets touchant aux jeunes (ex. sécurité des passagers dans les véhicules, sécurité à la maison et des parcs). De plus, il collabore avec de nombreux acteurs et groupes œuvrant en prévention afin d'influencer les politiques.

Le CSL a récemment reçu du financement, en collaboration avec le Ecology Action Centre, afin d'inclure la sécurité des piétons de la Nouvelle-Écosse dans leurs champs d'action puisque les mortalités chez les piétons demeurent la première cause de décès chez les 14 ans et moins dans la région de l'Atlantique.

Une évaluation de l'environnement actuel, tant au niveau des infrastructures que des politiques de transport, est mise en place actuellement afin de mieux cibler les actions à mettre en place. Cette évaluation permettra et facilitera la mise en place d'un environnement favorisant le transport actif et ainsi, favoriser la santé et la sécurité de la population.

Si vous ou votre organisation pouvez contribuer à cette initiative, contactez Jennifer Russell à Jennifer.russell@iwk.nshealth.ca.

Child Safety Link (CSL) is an injury prevention program located at the IWK Health Centre in Halifax, Nova Scotia. Its mission is to reduce the incidence and severity of unintentional injury to children and youth in Nova Scotia, New Brunswick, and Prince Edward Island.

CSL provides information to families and caregivers across the region on such topics as child passenger safety, home and playground safety, poisoning prevention, and

(Continued on page 5)



Pour en savoir plus
sur Child Safety
Link, consultez
www.childsafetylink.ca.

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helmet use. CSL is able to spread injury prevention messaging through community work (e.g., car seat technician training), media-based promotion (e.g., articles in family magazines), a variety of educational resources, and through our user-friendly website for parents/caregivers and injury prevention professionals. CSL's collaboration with individuals and injury prevention groups has enabled the program to influence important provincial regulations over the past decade such as booster seat use, ATV regulations, and the new ski/snowboard helmet legislation.

Recently, CSL received funding, in partnership with the Ecology Action Centre, to expand their scope of safety to include child pedestrians in Nova Scotia. Pedestrian injuries continue to be the leading cause of death among children aged 14 and under living in the Atlantic region, and children remain at highest risk for pedestrian-related injuries.

Currently in the beginning stages, CSL is conducting an environmental scan across the province, which looks at a range of active transportation work specific to pedestrian safety. Details on initiatives and programming, policies and changes to legislation, resources and tools, environment and infrastructure, as well as advocacy and supports, are outlined. The findings from this scan will help CSL build a more extensive report where evidence and recommendations for the subsequent phases of this pedestrian safety framework will be determined.

As CSL works to bring forward the connection between safety and activity in relation to active transportation, further investigation will explore:

- The links between pedestrian safety and the social determinants of injury.
- Enhancing the availability of information, resources, and other safety materials for families and professionals.
- Working with communities to support pedestrian safety initiatives, and help communities advocate for positive change.

Walking is a great way to be physically active and to get from one place to another, not to mention that it is helpful in sustaining the environment. While communities strive for increased active transportation, CSL is looking to build on the importance of healthy and safe living. These efforts will provide community members, professionals, and key stakeholders, with promising practice information. It is expected that communities will be better able to adopt and implement evidence-based initiatives, policies, and changes to infrastructure in efforts to prevent not only child pedestrian injuries, but pedestrian injuries to people of all ages. If you believe your organization can contribute to this Nova Scotia focused environmental scan, please contact Jennifer Russell at Jennifer.russell@iwk.nshealth.ca.

Jennifer Russell
Child Safety Link



Jennifer Russell—
Child Safety Link

To learn more about
Child Safety Link,
visit
[www.childsafetylink
.ca](http://www.childsafetylink.ca).

Not surprisingly, pedestrians, cyclists, and motorcyclists are especially vulnerable in collisions with much more massive, and much faster moving, motor vehicles.



Pedestrian Safety through Vehicle-Based Countermeasures

Les dispositifs de sécurité intégrés aux véhicules sont de plus en plus de haute technologie. Il importe de souligner, parmi ces approches novatrices, les dispositifs visant à protéger les piétons et les cyclistes. Les possibilités vont de changements apportés dans la structure et les composants ajoutés qui fournissent une protection au moment de la collision à des systèmes destinés prévenir les collisions entre véhicules et usagers vulnérables.

Not surprisingly, pedestrians, cyclists, and motorcyclists are especially vulnerable in collisions with much more massive, and much faster moving, motor vehicles. Even at relatively low contact speeds the outcome for such individuals can be serious injuries or even fatalities. In jurisdictions such as Europe, where the involvement of vulnerable road users in serious collisions is greater than in North America, specific consideration has been given to the protection of these individuals through vehicle-based countermeasures.

In the late 90's the European New Car Assessment Programme (EuroNCAP) began incorporating safety ratings for vehicles based on pedestrian-friendly designs. In 2009, the score from a series of test procedures seeking to quantify the potential for injury mitigation against vehicle-pedestrian impacts became an integral part of the overall vehicle safety star-rating scheme.

Structural changes to motor vehicles, necessitated by the desire of manufacturers to obtain good pedestrian protection scores in EuroNCAP tests, have included the provision of bumpers which readily deform and spread the load path when they hit a pedestrian's leg; the removal of unnecessarily stiff portions of the edges of the hood; and allowing clearance between the top surface of the hood and the underlying structures of the engine assembly in order to cushion head contacts.

While this latter aspect has often been accommodated by re-packaging components in the engine compartment, an alternative approach has been to provide a deployable hood assembly. Typically, contact sensors located in the front bumper identify an impact with a pedestrian and the vehicle's hood is automatically raised through the use of springs or a pyrotechnic charge.

A more recent innovation, developed by Volvo Car Corporation, has been the deployment of an external air bag that both lifts the hood in order to create deflection space, and provides a shield over the bottom of the windshield frame and the lower portions of the front roof pillars to protect against head contact with these stiff structures.

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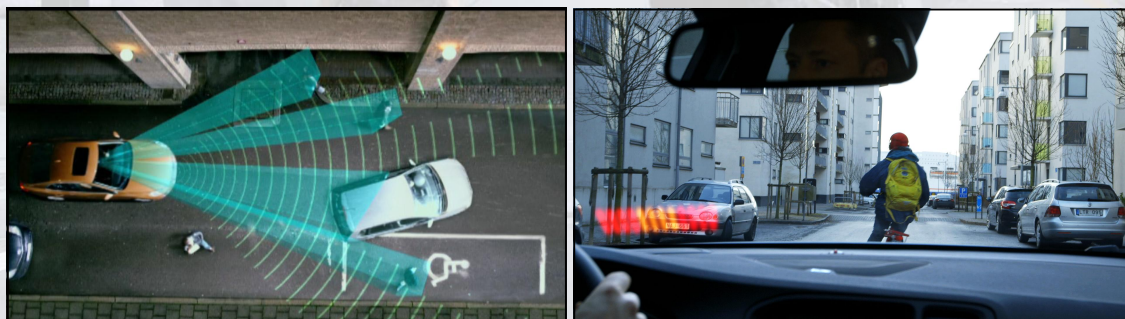
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Volvo, a company renowned for its vehicle safety innovations, has also developed a series of countermeasures designed to locate vulnerable road users ahead of the vehicle's path of travel, predict their likely movements, and identify hazardous situations where a collision might occur. In such cases, the driver is alerted, while the vehicle itself is capable of fully applying the brakes in order to prevent a crash or at least reduce the impact speed.

The Pedestrian Detection with Full Auto-Brake system uses forward-looking radar, digital cameras, and sophisticated image-processing systems to identify specific objects ahead of the vehicle as pedestrians, track their motion relative to that of the vehicle, predict potential conflicts, and monitor any motion of a pedestrian into the vehicle's path. The system alerts the driver through an audible warning signal and a flashing warning light in the vehicle's head-up display.



Volvo's Pedestrian Airbag Technology System



Volvo's Pedestrian and Cyclist Detection with Full Auto-Brake System

The braking system is pre-charged and, if the driver does not react to the warning such that a collision becomes imminent, full brake application is commanded automatically. The system can avoid a collision with a pedestrian at vehicle speeds up to 35 km/h, and can reduce the impact speed by this amount in the case of higher travel speeds.

Most recently, Volvo has extended the functionality of this system to accommodate cyclists and is currently working to provide a means of collision avoidance or mitigation against impacts with wild animals such as deer and moose.

Alan German
Road Safety Research



Volvo is a company renowned for its vehicle safety innovations

Texting and Walking?

L'industrie des télécommunications et les chercheurs soulignent les dangers de l'envoi de messages texte en marchant. Une solution inhabituelle pour cela est une nouvelle application appelée « Sidewalk Buddy » qui permet aux piétons de voir en temps réel ce qui se passe devant eux alors qu'ils se promènent.

In an intriguing spin in the whole issue of texting and driving, the Canadian Wireless Telecommunications Association has issued a warning against pedestrians texting while walking. According to the Association, Canadians send nearly 10 million text messages an hour, or 227 million per day, and it is urging people to be more aware of their surroundings. A 2012 research study by the University of Washington revealed that nearly one in three people walk across busy streets while distracted by their smartphones. This type of distracted walking has resulted in serious injuries and has been documented as a contributing factor in at least one pedestrian fatality. (1).

As an interesting twist, a new smartphone app called 'Sidewalk Buddy' has been developed to deal with this problem (2). The Sidewalk Buddy app creates a video pop-up window that appears on top of any other app people are using. The window allows a heads-up, real-time view of what's going on in front of you from the phone's rear facing camera.

The issue of texting and walking has been parodied by an improv comedy group in New York City. For a look at what happened, check out their video at:

<http://gizmodo.com/sadly-people-who-walk-and-text-could-actually-use-this-486000701>

Jeff Suggett
Associated Engineering



Sidewalk Buddy—A new app for Android phones that prevents that allows you to safely 'text and walk'



Opening scene for an improv comedy sketch on 'seeing eye people'



The Sidewalk Buddy app creates a video pop-up window that appears on top of any other app people are using. The window allows a heads-up, real-time view of what's going on in front of you from the phone's rear facing camera.

Endnotes

- (1) <http://www.news1130.com/2012/08/23/stop-texting-and-walking-canadas-wireless-industry/>
- (2) <http://www.prnewswire.com/news-releases/new-android-smartphone-app-solves-more-than-texting-and-walking-problems-197694831.html>

New! Pedestrian Safety Manual announcement by World Health Organization

This manual was launched in time for the 2nd UN Global Road Safety Week, May 6-12, dedicated this year to Pedestrian Safety. The manual was developed in response to requests from international practitioners to provide guidance on how to address risk factors facing vulnerable road users. The manual contains case studies, best practices and stresses the importance of an integrated approach including engineering, enforcement and behavioural measures. For more information about this project contact: Meleckidzedek Khayesi at khayesi@who.int



**GLOBAL STATUS REPORT
ON ROAD SAFETY**
TIME FOR ACTION



Nouveau! Annonce du guide sur la sécurité des piétons par l'Organisation Mondiale de la Santé

Ce manuel est lancé à temps dans le cadre de la deuxième semaine de la sécurité routière des Nations Unies, du 6 au 12 mai, dédiée cette année à la sécurité des piétons. Le manuel a été développé comme réponse aux demandes de professionnels internationaux pour donner une orientation sur la manière d'aborder les facteurs de risque des usagers de la route vulnérables. Le manuel comprend des études de cas, des meilleures pratiques, et il met l'accent sur l'importance d'une approche intégrale, y compris l'ingénierie, l'application et les mesures du comportement. Pour en savoir plus sur ce projet-ci, veuillez contactez : Meleckidzedek Khayesi à khayesi@who.int

Links:

http://www.who.int/violence_injury_prevention/publications/about_vip/newsalerts/Alert_10.pdf



La deuxième semaine de la sécurité routière des Nations Unies est 6 au 12 mai, 2013.



The 2nd UN Global Road Safety Week was May 6—12, 2013.

The New TAC Pedestrian Crossing Control Guide: Highlights and Development

Les piétons ont toujours besoin d'une infrastructure sûre pour traverser les rues, ce qui est devenu un défi particulier de sécurité du aux interactions avec les autres usagers. Le nouveau guide de contrôle des passages pour piétons (2012) de l'Association des transports du Canada (ATC) remplace le manuel de 1998, il incorpore la recherche et l'expérience les plus récentes, et l'on espère que ce guide fournira de l'uniformité à travers le Canada par rapport aux approvisionnements des contrôles pour les passages des piétons.

Introduction

The new Transportation Association of Canada (TAC) Pedestrian Crossing Control Guide (2012) helps transportation professionals make decisions about providing crossing infrastructure for pedestrians that is sustainable, equitable, and safe. The guide updates the 1998 TAC Pedestrian Crossing Control Manual. A 16-member Canada-wide steering committee oversaw development of the guide, which draws on a safety-focused literature review of over 300 crossing control studies published since 1995 and a survey of over 250 Canadian and international jurisdictions.

Survey Highlights

The survey focused on jurisdictions' use of decision-making tools and extent of application of 23 crossing treatments in nine environments. About two thirds of jurisdictions use formal warrants to determine need for crossing control, while only about half use warrants for treatment selection. Those without warrants prefer flexibility for engineering judgment and local conditions. The most common input variables to decision tools

are: vehicle and pedestrian volumes, number of lanes, speed, adjacent land use, proximity to alternate crossings, and collision history. Treatments used by more than half of Canadian jurisdictions are: (1) crosswalks with side mounted signs at school zones, unsignalized intersections, and mid-block locations; (2) accessible pedestrian signals; and (3) countdown pedestrian signals.

Safety Review Highlights

The safety review considered the application, installation and safety performance of 24 pedestrian crossing control devices. The safety performance analysis considered three types of studies: (1) behavioural observations (e.g. changes to driver yielding behaviour); (2) quantitative outcomes measures based on non-rigorous analysis—for example a collision modification factor (CMF) from simple before-after studies; and (3) quantitative outcome measures based on rigorous analysis (e.g. CMF from an advanced before-after study). The safety review found an abundance of studies based on behavioural observations and a

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severe lack of rigorous quantitative evaluations. A Canada-wide program of rigorous before-after safety evaluations of pedestrian crossing treatments could address this gap. Based on the review, 11 treatments were selected for the Pedestrian Crossing Control Guide. Eight of these had no CMF available in the literature. The guide includes those based on behavioural-based safety evidence or long-term agency experience.

Guide approach

The TAC Pedestrian Crossing Control Guide, using the survey and safety review as a foundation, provides guiding principles for crossing control and a decision-support tool to aid in treatment decisions. The seven guiding principles identified in the guide are:

- safety;
- delay;
- equity;
- expectancy;
- consistency;
- connectivity; and,
- pragmatism.

The decision support tool (DST) focuses first on the need for a treatment and then on treatment selection. The DST component focusing on need for treatment asks several questions about local warrants, traffic volumes, pedestrian volumes, proximity to existing crossings, desire lines (latent demand), and network connectivity issues. The DST component focusing on treatment selection uses a matrix tool considering vehicle volume, speed, number of lanes, and presence of a raised pedestrian refuge. Often, several treatments are combined into treatment systems, and the guide outlines six of these to promote consistent practice.

Resources

More information is available in the Pedestrian Crossing Control Guide and Technical Knowledge Base from TAC by contacting Katarina Cvetkovic at: kcvetkovic@tac-atc.ca.

Craig Milligan, B.Sc. EIT
University of Manitoba



The TAC Pedestrian Crossing Control Guide, using the survey and safety review as a foundation, provides guiding principles for crossing control and a decision-support tool to aid in treatment decisions.

In the month of January 2010, there was a cluster of 23 deaths involving pedestrians in the province of Ontario.



Coroner's report on pedestrian deaths in Ontario offers sobering statistics

Le Bureau du coroner en chef de l'Ontario a publié un rapport exhaustif traitant des facteurs causant la mort de piétons en Ontario. Le rapport contient aussi plusieurs recommandations variées afin d'améliorer la sécurité des piétons dans les communautés ontariennes en adoptant une approche favorisant l'intégration de tous les usagers de la route et en abaissant les limites de vitesse.



In the month of January 2010, there was a cluster of 23 deaths involving pedestrians in the province of Ontario. This unusual grouping, primarily occurring in the Greater Toronto area was widely reported in the media and prompted the Office of the Chief Coroner of Ontario to conduct an investigation into pedestrian deaths throughout the province for the year 2010

and identify potential recommendations for improving pedestrian safety. [1]

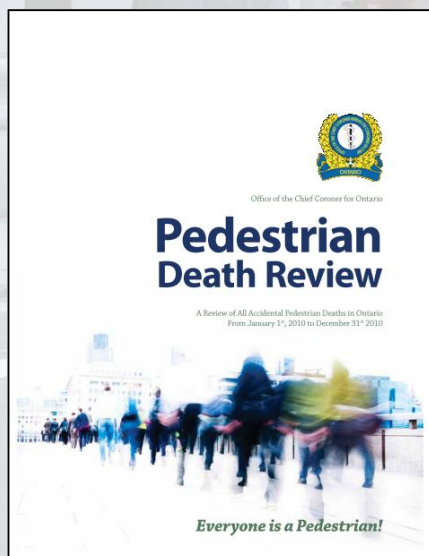
Over the entire year, there was a total of 95 pedestrian fatalities in the province. The review of the collisions provides a number of striking statistics, some of which would form the basis for the recommendations made.

- Age – There was a far greater propensity for those over 65 years of age to be involved in a fatality as this particular age group accounted for 36 percent of the deaths, despite the fact that this age group accounts for only 13 percent of Ontario's population. Given Ontario's aging population, the trend towards an overrepresentation of elderly pedestrian fatalities is expected to continue. This high proportion of older pedestrian has been noted in studies elsewhere. It was also striking that very few of the pedestrian deaths involved children. There were three deaths amongst children aged 1 – 4 years and none involving children between 5 and 14 years.
- Gender of Driver – Male drivers accounted for a disproportionately large number of the collisions (67 percent).
- Type of Motor Vehicle – Heavy trucks were involved in a surprisingly high proportion of the collisions (12 percent). It was speculated that one of the

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- causes might be a decreased visibility of pedestrians to drivers to trucks.
- **Charges** – Charges were only laid in 30 percent of the collisions.
- **Light Condition** – Over half the collisions (54 percent) occurred at night.
- **Month** – One quarter of the collisions occurred in the month of January – far more than any other month of the year.
- **Urban versus Rural** – Pedestrian collisions are much more common in urban areas (76 percent) compared to rural areas (24 percent).
- **Collision Details** – The most common type of pedestrian-vehicle interaction was a pedestrian crossing a road at a midblock location being struck by a vehicle (31 percent). It was speculated that the causes might include motorists not expecting a pedestrian to cross at the midblock location, reduced visibility when the pedestrian was crossing in between parked vehicles, and motorists unable to stop in time. The authors note that the crossing location was uncontrolled.
- **Speed Limits on Road** – The most common posted speed on the road where the collision occurred was 50 km/h (37 percent). The authors note that the likelihood of death for pedestrians struck at 50 km/h is twice as high as the risk at 40 km/h and five times higher than the risk at 30 km/h.



The coroner's report had a long and wide ranging list of recommendations that will require the involvement of a number of different government agencies. First, the authors made a broad recommendation for road authorities and planners to adopt a 'complete streets' approach when designing new roads and upgrading existing roads. 'Complete streets' are streets designed to be safe, convenient and accessible for users – and typically have wide sidewalks, dedicated cycling facilities and a narrower cross section for vehicles. Second, the authors recommended that the province develop a Walking Strategy for Ontarians, which would encourage municipalities to develop policies,

practices and plans for their communities that would foster a safe and convenient walking environment, thereby improving road safety, encouraging recreational activity, and improving health.

The report has generated a significant amount of discussion in the road safety community in Ontario, particularly a controversial recommendation to reduce speed limits to 30 km/h on residential streets and adopting speed limits of 40 km/h on other urban streets, unless otherwise posted. Some communities have started moving in that direction, particularly in lowering speed limits on streets near schools. However, some traffic engineers have warned that a blanket lowering of

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The coroner's report had a long and wide ranging list of recommendations that will require the involvement of a number of different government agencies.

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speed limits without making changes to the cross section of the road will not be effective at lowering vehicle speeds and may give pedestrians a false sense of security. Much work is still required to change the character of our communities to encourage lower vehicle speeds in areas where pedestrians frequent. It is however encouraging to see that the 'complete streets' movement is gaining momentum in Ontario. Each year for the past three years, the Toronto Centre for Active Transportation has hosted this event, which has grown in numbers each year.

Jeff Suggett
Associated Engineering



Endnotes

[1] Lauwers B; [Pedestrian Death Review - A Review of All Accidental Pedestrian Deaths in Ontario From January 1st 2010 to December 31st 2010](#); Office of the Chief Coroner for Ontario; 2012

Side Guards on Heavy Trucks

L'attention des médias a été récemment focalisée sur une recommandation du Bureau du coroner en chef de l'Ontario que des protections latérales devraient être installées sur les camions lourds afin de protéger les piétons. Cependant, d'autres recherches suggèrent que ce problème de sécurité peut être un peu plus complexe.

A number of the recommendations intended to promote pedestrian safety that resulted from a review of pedestrian fatalities by the Office of the Chief Coroner of Ontario have been discussed in another article in this newsletter (See: *Coroner's report on pedestrian deaths in Ontario offers sobering statistics*.) One other recommendation that gained considerable media attention was the following:

"Transport Canada should make side-guards mandatory on heavy trucks in Canada. In addition, consideration should be given to requiring additional equipment (such as blind spot mirrors and blind spot warning signs) to make pedestrians more visible to trucks and decrease the chance of a collision, especially during right-hand turns."

The media, and others, have seized on the first part of this recommendation and have called for regulators to require the installation of side guards on all heavy trucks. Given that the coroner's report indicates that half of the heavy truck-pedestrian fatalities involved the pedestrian coming into contact with the side of the truck, and subsequently being either pinned or run over by the rear wheels, the recommendation may seem to have considerable merit. This position would also

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The coroner's report recommended that Transport Canada make side-guards mandatory on heavy trucks in Canada.

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seem to be supported by the inclusion of a quote from a National Research Council (NRC) report [1] that in the European Union, "...deaths and serious injuries... have been reduced since the introduction of side guards."



*European Heavy Truck Equipped with a Side Guard
(Image courtesy of Lloyd Alter)*

However, while the authors of the NRC report do indeed indicate a reduction in pedestrian fatalities following the mandating of truck side guards, they go on to state that: "...it is not clear if this reduction is entirely related to side guards or if side guards are but one of the contributing factors." Further-

more, their report includes the statement that: "It is not clear if side guards will reduce deaths and serious injury or if the guards will simply alter the mode of death and serious injury." There is, therefore, some question over the efficacy of side guards as an appropriate countermeasure.

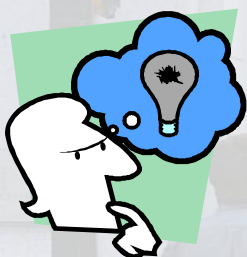
Furthermore, the Chief Coroner's contains no details as to the specific nature of the collisions between the fatally-injured pedestrians and the sides of heavy trucks. In general, the greatest portion of fatal crashes involved pedestrians crossing the road, either at a mid-block location (31%) or at an intersection without the right of way (11%), and where vehicles were going straight ahead. While not stated, it is likely that in such circumstances the first impact was with the front of the vehicle. This is consistent with national crash data where 45-50% of heavy truck-pedestrian fatalities and injuries in urban locations result from first contact with the front of the truck. These statistics indicate that a sizeable portion of the pedestrian fatality problem is not amenable to a solution based exclusively on heavy-truck side guards.

For vehicle-pedestrian fatalities in general, some 14% are noted in the coroner's report as occurring as a vehicle was in the process of turning, either to the right or left, where the pedestrian had the right of way. While not identified in the report, it seems likely that fatal collisions involving such turning manoeuvres, especially right turns, will occur with heavy trucks. One of the report's conclusions is that the cause of some crashes "...may be decreased visibility of pedestrians to drivers of trucks...". This resulted in the second part of the coroner's recommendation for the use of blind-spot detection systems. Technological advances in the use of digital cameras,

(Continued on page 16)

The report also recommended that blind-spot detection systems be installed in trucks.

The studies to date have been hampered by a lack of detailed information as to the specific nature of the collision events involving vulnerable road users and heavy-duty vehicles.



(Continued from page 15)

image processing, and hazard detection systems, as alternatives to conventional side mirrors, may well prove to be an effective aid to drivers in these circumstances.

The above considerations suggest that the implementation of heavy truck-pedestrian safety countermeasures is somewhat more complex than simply requiring side guards. These systems have limited applicability to the collision population, will not be appropriate for all heavy-duty vehicle configurations, and have associated cost and weight penalties.

Furthermore, even in side-contact situations where guards might be expected to provide benefits this may not prove to be the case. The coroner's report highlights the fact that 12% of the fatally-injured pedestrians were struck by a heavy truck and 9% by a public transit vehicle. However, the NRC report notes that: "City buses have lower built-in side skirting than sideguards found on most trailers yet there are still incidences of pedestrians and passengers being killed as they slip and fall under the wheels of moving city buses".

The studies to date have been hampered by a lack of detailed information as to the specific nature of the collision events involving vulnerable road users and heavy-duty vehicles. Thus it would appear prudent to further consider this safety issue with a more finely-grained dataset developed through an in-depth investigation process. While truck side guards might not be the ultimate countermeasure, there are clearly issues of inattention and awareness on the part of both drivers and vulnerable road users that need to be addressed, and vehicle-based technologies that may play a useful role in reducing the incidence of these tragic events.

Alan German
Road Safety Research

Endnotes

[1] Patten JD and Tabra CV; Side Guards for Trucks and Trailers, Phase 1: Background Investigation; National Research Council Canada; Report No. CSTT-HVC-TR-158; 2010



Pedestrian Casualties on Canadian Public Roads, 2000-2008

Pedestrians are among the most vulnerable road users in the world due to their lack of physical protection. An overview of pedestrian crash trends was undertaken in order to put in numbers the pedestrian injury problem in Canada. The data were collected from Transport Canada's National Collision Database Online, which has been made available since April 2012 (<http://www.tc.gc.ca/VehicleCollisions>). Pedestrian versus vehicle crash trends for the period 2000-2008 were reviewed.

In terms of injured road users (Figure 1) between 2000 and 2008, about 6% of them were pedestrians. The largest injured group was motor vehicle drivers (57%), followed by motor vehicle passengers (28%). Among vulnerable road users, bicyclists and motorcyclists represented 4% and 3%, respectively. Over the same period of time, pedestrian fatalities (Figure 2) averaged 13% of those who died in collisions. Still the largest fatality groups correspond to motor vehicle drivers and passengers: 51% and 24%, respectively.

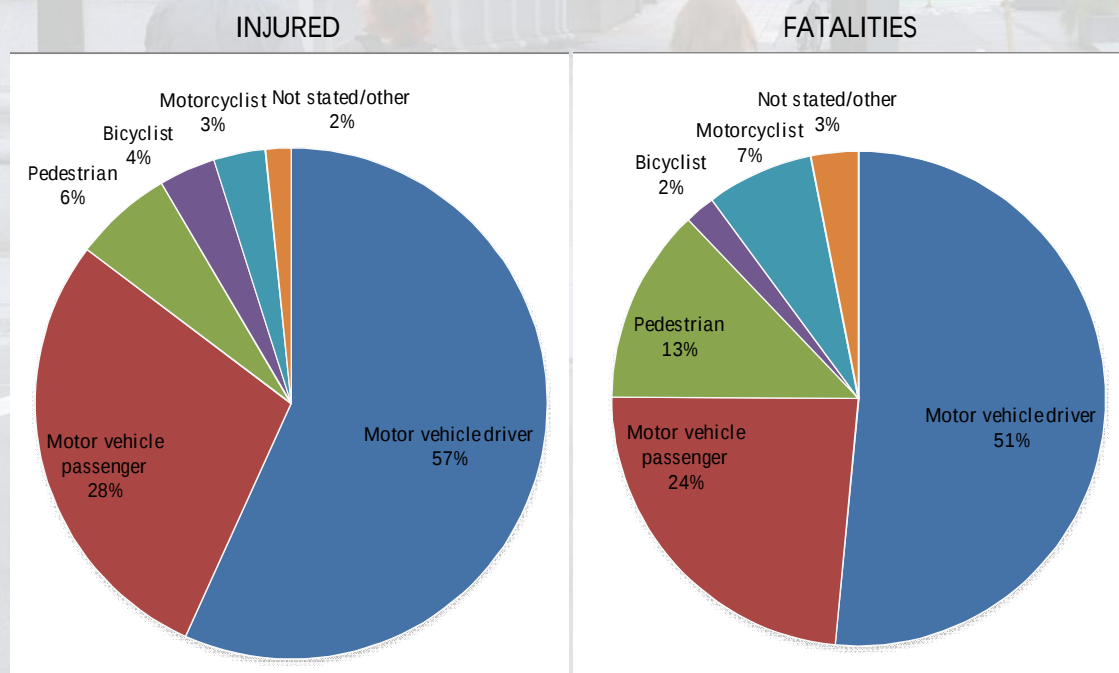


Figure 1. Injured crash trends in Canada by road user class for the period 2000-2008

Figure 2. Fatality crash trends in Canada by road user class for the period 2000-2008

Taking a closer look at pedestrian crashes, and especially at fatalities, Figure 3 shows the 2000-2008 period trends. Numbers show an overall fatality count decrease from 372 fatalities in the year 2000 to 299 in 2008, although this reduction trend has not been consistent through the period. We would need to examine more variables and data -including those at the provincial level- in order to be able to identify if pedestrian crash trends have decreased due to a positive effect of particular road

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Elderly people are also less likely to recover from their injuries, that may be survivable by a younger person.

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safety pedestrian countermeasures, including infrastructure enhancement, consciousness campaigns, enforcement, and others.



Figure 3. Pedestrian crash trends in Canada for the period 2000-2008

Two other important variables to look at are age and gender, which are shown in Figure 4 for pedestrian fatalities over the period 2000-2008. It is not surprising that more male fatalities take place, which is a very common global trend in traffic crash statistics. For males, the youngest three age groups show a higher fatality account in pedestrian crashes (0-14, 15-19 and 20-24 year old groups), and the highest number of deaths in any age group corresponds to males over 80 years old. For females, more fatalities occur for 65 years old and older. As people grow old, their bodies become weaker and more fragile, hence more vulnerable to injury if hit by a motor vehicle. Elderly people are also less likely to recover from their injuries, that may be survivable by a younger person. Also, they move more slowly and may overestimate their physical capacities to maneuver in traffic in the time required.

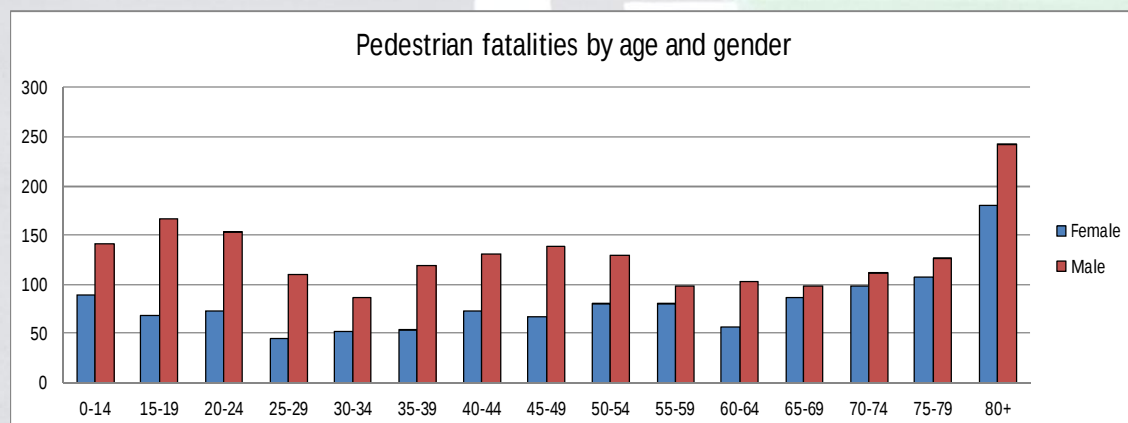


Figure 4. Pedestrian fatalities in Canada by age and gender for the period 2000-2008

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The review of these data give an overview of pedestrian casualties in Canada for a specific period of time, from 2000 to 2008. Although this brief review is available, comprehensive multi-variable national and provincial crash data analyses are always encouraged in order to develop, refocus and update road safety policies, campaigns, enforcement, education, and engineering countermeasures.

Josée Dumont — CIMA+,
Javier Zamora — LanammeUCR, University of Costa Rica

Accidents impliquant des piétons sur les routes canadiennes, de 2000 à 2008

Comme ils n'ont aucune protection, les piétons sont parmi les usagers de la route les plus vulnérables partout dans le monde. Afin de mieux comprendre le problème des piétons victimes d'accidents de la route au Canada, nous présentons une vue d'ensemble des tendances et nombre d'accidents impliquant des piétons. Les données utilisées proviennent de la base nationale de données sur les collisions (BNDC) en ligne de Transport Canada. Cette base de données est disponible en ligne depuis avril 2012 et peut être consultée en suivant le lien <http://www.tc.gc.ca/collisionsvehicules>. Les collisions survenues entre 2000 et 2008 et impliquant piétons et véhicules ont été analysées afin d'identifier de possibles tendances.

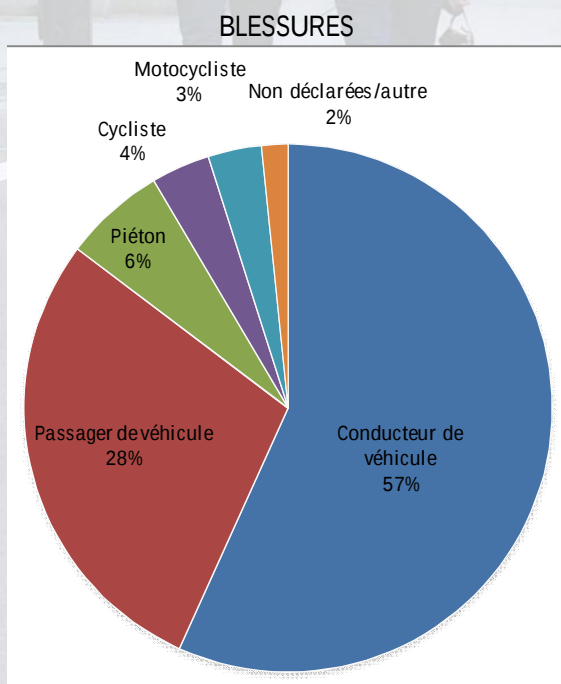


Figure 1. Proportion des usagers de la route ayant subi des blessures suite à un accident de la route entre 2000 et 2008

Pour la période de 2000 à 2008, les piétons représentent environ 6% des personnes blessées lors d'un accident de la route (figure 1). Les conducteurs de véhicules forment le groupe qui est le plus souvent victime de blessures lors d'un accident de la route (57% des personnes blessées), suivis des passagers (28%). Parmi les usagers vulnérables, les cyclistes et les motocyclistes représentent 4% et 3% des personnes blessées, respectivement. Pendant la même période, les piétons représentent 13% des décès suite à un accident de la route (figure 2). Les conducteurs et passagers représentent la plus grande proportion de décès suite à un accident de la route, avec 51% et 24%, respectivement.

(Continued on page 20)



Pendant la même période (2000—2008), les piétons représentent 13% des décès suite à un accident de la route.

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La figure 3 montre plus d'informations sur les collisions impliquant des piétons, particulièrement les accidents causant un décès. Les données montrent une diminution du nombre de décès de piétons de 372 en 2000 à 299 en 2008. Par contre, cette diminution n'a pas été constante durant toute la période. Une analyse supplémentaire des données et variables, incluant une revue des données par province, serait nécessaire pour déterminer si cette diminution est due à certaines mesures de sécurité pour les piétons, comme des améliorations aux infrastructures, des campagnes de sensibilisation, une présence policière accrue, ou d'autres mesures.

DÉCÈS

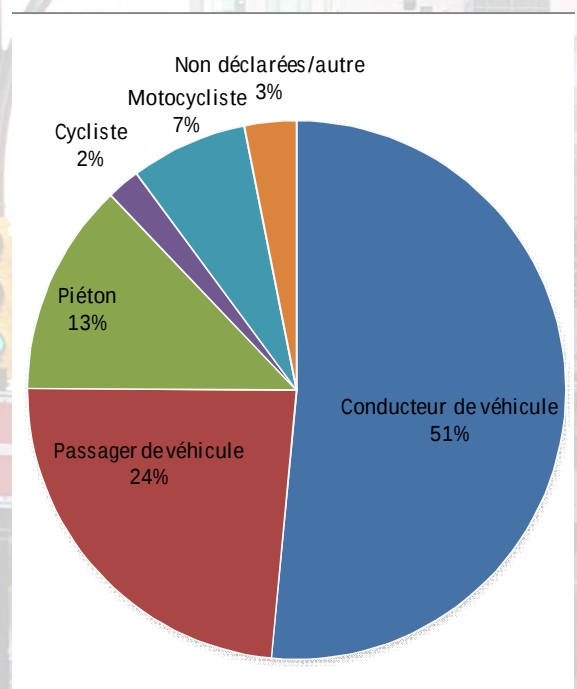


Figure 2. Proportion des usagers de la route décédés suite à un accident de la route entre 2000 et 2008

Nombre de décès de piétons

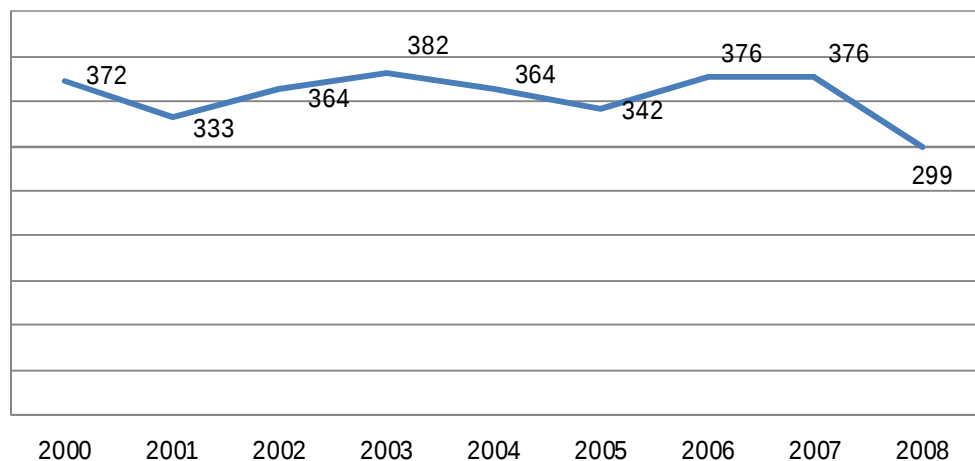
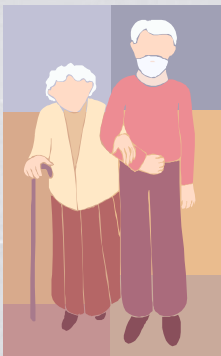


Figure 3. Nombre de décès de piétons lors d'accidents de la route pour les années 2000 à 2008

Il est aussi important d'analyser deux autres variables: l'âge et le sexe des piétons décédés lors d'accidents de la route entre 2000 et 2008 (figure 4). Il n'est pas surprenant de constater qu'en tant que piétons les hommes sont plus souvent victimes d'accidents mortels que les femmes, puisqu'il s'agit d'une tendance observée dans les statistiques de tous les types d'accidents. Chez les hommes pié-

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tons, les trois groupes d'âge les plus jeunes sont le plus souvent victimes d'accidents mortels (0-14 ans, 15-19 ans et 20-24 ans) et le nombre le plus élevé de décès pour un seul groupe d'âge se situe chez les hommes de 80 ans et plus. Chez les femmes piétonnes, le plus grand nombre de décès se retrouve chez les femmes âgées de 65 ans et plus. Avec l'âge, le corps devient de plus en plus faible et fragile, donc plus vulnérable aux blessures lors d'un accident. Les chances des personnes plus âgées de se remettre de blessures sont aussi moindres que celles des gens plus jeunes, qui peuvent se remettre plus facilement d'un même type de blessures. Il est aussi probable que les personnes plus âgées se déplacent plus lentement et qu'elles peuvent surestimer leurs capacités à se déplacer assez rapidement pour éviter un accident.

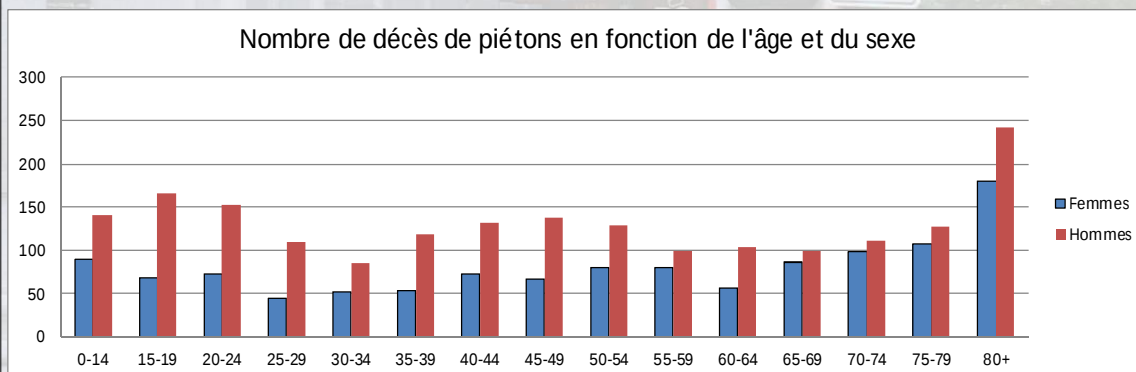


Figure 4. Nombre de décès de piétons au Canada en fonction de l'âge et du sexe entre 2000 et 2008

L'analyse des données effectuée ici propose une vue d'ensemble des accidents impliquant des piétons pour une période particulière, soit de 2000 à 2008. Cette analyse ne présente cependant qu'un survol des données et une analyse complète des accidents, incluant plusieurs variables aux niveaux national et provincial est encouragée afin de développer, mettre au point ou améliorer des pratiques et autres mesures de sécurité telles que des campagnes de sensibilisation, de la présence policière, de l'éducation ainsi que des améliorations aux infrastructures.

Josée Dumont — CIMA+,
Javier Zamora — LanammeUCR, University of Costa Rica



Une analyse complète des accidents incluant plusieurs variables aux niveaux national et provincial est encouragée afin de développer, mettre au point ou améliorer des pratiques et autres mesures de sécurité telles que des campagnes de sensibilisation, de la présence policière, de l'éducation ainsi que des améliorations aux infrastructures.

The promotion of cycling and walking as forms of exercise, the popularity of motorcycles, and the aging population are all factors that make addressing the safety needs of vulnerable road users a priority.



Injuries Related to Vulnerable Road Users in Canada

Vulnerable road users, including pedestrians, cyclists, and motorcyclists, face several road safety challenges. The promotion of cycling and walking as forms of exercise, the popularity of motorcycles, and the aging population are all factors that make addressing the safety needs of vulnerable road users a priority.



In order to develop countermeasures, it is important to gain an understanding of the types of injuries vulnerable road users typically sustain, who these victims are, and the characteristics of collisions involving vulnerable road users. To this end, the Traffic Injury Research Foundation (TIRF) partnered with the Public Health Agency of Canada (PHAC) to investigate these types of crashes and injuries on Canada's roadways.

TIRF's Fatality Database, Serious Injury Database, and data from PHAC's Canadian Hospitals Injury Reporting and Prevention Program (CHIRRP) were used for the analyses. Results suggest that while some progress has been made in terms of reducing the absolute number of pedestrian fatalities, the number of vulnerable road user fatalities as a percentage of all road user fatalities has increased between 1995 and 2010 (from 13.4% to 14.1% for pedestrians; from 2.4% to 3.0% for cyclists; and from 4.7% to 7.7% for motorcyclists). This suggests that while fewer Canadians overall are dying on roadways, it is occupants of passenger vehicles (e.g., automobiles, trucks, and vans) who are benefiting most from advances in road safety.

In addition, since the influence of drug or alcohol impairment in vulnerable road user crashes has not been sufficiently examined, another goal of this project is to help fill this knowledge gap.

The number of fatally injured motorcyclists testing positive for alcohol has decreased since 1990 (from 52.7% to 33.3% in 2010), however the same decreasing trend is not apparent with respect to pedestrians and cyclists. The data concerning cyclists is volatile due to low testing rates; however alcohol impairment is a visible problem among fatally injured pedestrians. There has been little change in the number of fatally injured pedestrians who test positive for alcohol (45.2% in 1990, and 45.8% in 2010). Moreover, among the 1,055 fatally injured pedestrians who

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tested positive for alcohol between 2000 and 2010, 925 (or 87.7%) had blood alcohol concentrations (BAC)s over the legal limit of 0.08%, and 713 (or 67.6%) registered BACs over twice the legal limit (i.e., 0.16% of above).

Drug use may also be a contributing factor in fatal vulnerable road user crashes, with between 30% and 40% of fatally injured vulnerable road users testing positive for drugs.

A paper, entitled “Injuries Related to Vulnerable Road Users in Canada”, will be presented in full, including injury data, at the upcoming Canadian Multidisciplinary Road Safety Conference in Montreal. The paper is co-authored by Ward Vanlaar (TIRF), Steve Brown (TIRF), Jennifer Crain (PHAC) and Steve McFaul I (PHAC).

Heather McAteer
Traffic Injury Research Foundation

Blessures de la route liées aux usagers vulnérables au Canada



Les usagers vulnérables, incluant les piétons, les cyclistes et les motocyclistes, sont confrontés à plusieurs défis en matière de sécurité routière. La promotion du vélo et de la marche comme forme d'activité physique, la popularité des motocyclettes, ainsi que le vieillissement de la population, voilà autant de facteurs qui rendent prioritaire le fait d'aborder les besoins de sécurité des usagers vulnérables.

Afin de mettre en place des mesures visant à contrer la situation actuelle, il est important de mieux comprendre les différents types de blessures subis généralement par les usagers vulnérables, qui sont ces victimes et quelles sont les caractéristiques des collisions les impliquant. Pour ce faire, la

Fondation de recherches sur les blessures de la route (TIRF) s'associe à l'Agence de santé publique du Canada (ASPC)

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La promotion du vélo et de la marche comme forme d'activité physique, la popularité des motocyclettes, ainsi que le vieillissement de la population, voilà autant de facteurs qui rendent prioritaire le fait d'aborder les besoins de sécurité des usagers vulnérables.

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afin d'enquêter sur ces types d'accidents et de blessures qui se produisent sur les routes canadiennes.

La base de données des décès et celle des blessures graves de la FRBR ainsi que des données provenant du Système canadien hospitalier d'information et de recherche en prévention des traumatismes (SCHIRPT) de l'ASPC ont été utilisées pour les analyses. Les résultats révèlent que, si certains progrès ont été réalisés en termes de réduction du nombre absolu de piétons décédés, le nombre de décès d'usagers vulnérables par rapport au nombre de décès de tous les usagers de la route a augmenté, en pourcentage. Entre 1995 et 2010, ce nombre est passé de 13,4 % à 14,1 % pour les piétons, de 2,4 % à 3,0 % pour les cyclistes et de 4,7 % à 7,7 % pour les motocyclistes. Cela semble indiquer que, alors que moins de Canadiens décèdent d'accidents de la route, ce sont les occupants des véhicules de promenade (par exemple, les automobiles, les camions légers ou les camionnettes) qui bénéficient le plus des progrès en sécurité routière.

En outre, puisque l'influence de la capacité de conduite affaiblie par la drogue ou par l'alcool dans les accidents impliquant des usagers vulnérables n'a pas été suffisamment étudiée, ce projet poursuit un autre objectif, celui de combler cette lacune.

Le nombre de motocyclistes décédés pour lesquels il a été déterminé qu'il y avait présence d'alcool dans leur sang a diminué, passant de 52,7 % en 1990 à 33,3 % en 2010. Cependant, la même tendance à la baisse n'est pas visible en ce qui concerne les piétons et les cyclistes. Les données relatives aux cyclistes sont volatiles en raison de faibles taux de dépistage, mais la capacité affaiblie par l'alcool est un problème manifeste parmi les piétons mortellement blessés. Il y a eu peu de changements dans la proportion de piétons décédés et pour lesquels il a été déterminé qu'il y avait présence d'alcool dans leur sang (45,2 % en 1990 et 45,8 % en 2010). Par ailleurs, entre 2000 et 2010, parmi les 1 055 piétons décédés pour lesquels il a été déterminé qu'il y avait présence d'alcool dans leur sang, 925 (ou 87,7 %) avaient un taux d'alcoolémie (TA) supérieur à la limite légale de 80 mg % et 713 (ou 67,6 %) ont enregistré un TA supérieur à deux fois la limite légale (i.e. 160 mg % ou plus).

La consommation de drogues peut également être un facteur contributif dans les accidents entraînant le décès d'usagers vulnérables : pour entre 30 % et 40 % des usagers vulnérables décédés, il a été déterminé qu'il y avait présence de drogue dans leur sang.

Une étude intitulée « Injuries Related to Vulnerable Road Users in Canada » sera présentée à Montréal lors de la prochaine conférence canadienne multidisciplinaire en sécurité routière. Cette étude est cosignée par Ward Vanlaard (FRBR), Steve Brown (FRBR), Jennifer Crain (ASPC) et Steve McFaull (ASPC).

Heather McAteer

Fondation de recherches sur les blessures de la route



Une étude intitulée « Injuries Related to Vulnerable Road Users in Canada » sera présentée à Montréal lors de la prochaine conférence canadienne multidisciplinaire en sécurité routière.

Un programme pour améliorer la sécurité des piétons dans les municipalités : L'Opération "Bon pied, bon œil"

Operation "Bon pied, bon œil" is a program intended to improve pedestrian safety in municipalities that wish to educate the public on pedestrian safety issues. It is a partnership that focuses on awareness with help from the police. A number of Québec municipalities have adopted Operation "Bon pied, bon œil" since its creation in 2005.



Dans le domaine de la sécurité routière, les piétons font partie de la catégorie d'usagers dits "vulnérables" parce qu'ils sont plus à risque de décéder ou d'être blessés gravement sur le réseau routier en raison de l'absence de protection. Au Québec,

après les occupants d'automobiles et de camions légers, les piétons arrivent au deuxième rang pour le nombre de victimes décédées.

Depuis quelques années, le bilan routier des piétons est préoccupant. Devant cette situation, la Société de l'assurance automobile du Québec s'est engagée en 2005 dans la réalisation d'un projet pilote avec la Ville de Sherbrooke pour une période de trois ans. Cette ville souhaitait implanter un modèle d'intervention pour améliorer les comportements des piétons et des conducteurs aux intersections et aux passages pour piétons. De cette expérience est née l'Opération "Bon pied, bon œil", un programme conçu pour améliorer la sécurité des piétons dans les municipalités désireuses de sensibiliser leurs citoyens à cette problématique.

Le programme "Bon pied, bon œil" est basé sur le partenariat et met l'accent sur des activités de sensibilisation et de contrôle policier. L'objectif principal du programme est de réduire le nombre de collisions impliquant des piétons et des véhicules routiers : - en faisant prendre conscience aux piétons qu'ils doivent, en tant qu'usagers de la route, respecter certaines règles pour assurer leur sécurité, la priorité de passage ne leur étant pas exclusive en tout temps; - en sensibilisant les conducteurs à l'idée de tenir compte des piétons dans leur déplacement, et ce, en étant courtois et vigilants à l'égard des piétons pour assurer la sécurité de ces derniers.

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Une Opération "Bon pied, bon œil" comprend les activités suivantes:

Une période intensive de sensibilisation (au moins une semaine) au cours de laquelle tous les partenaires, dans leur champ d'action respectif, interviennent pour conscientiser divers groupes de citoyens à la sécurité des piétons sur le réseau routier. Pendant cette période, les policiers interpellent les piétons et les conducteurs, fautifs et non fautifs, pour rappeler à ces usagers les règles de circulation. Ils informent les personnes interpellées qu'ils appliqueront les règles en donnant des constats d'infraction.

Une période intensive de renforcement des contrôles policiers (au moins une semaine) au cours de laquelle les policiers surveillent les comportements des conducteurs et des piétons sur des sites choisis. Ils interpellent les usagers qui ont un comportement non sécuritaire et remettent des constats d'infraction, si cela est nécessaire.

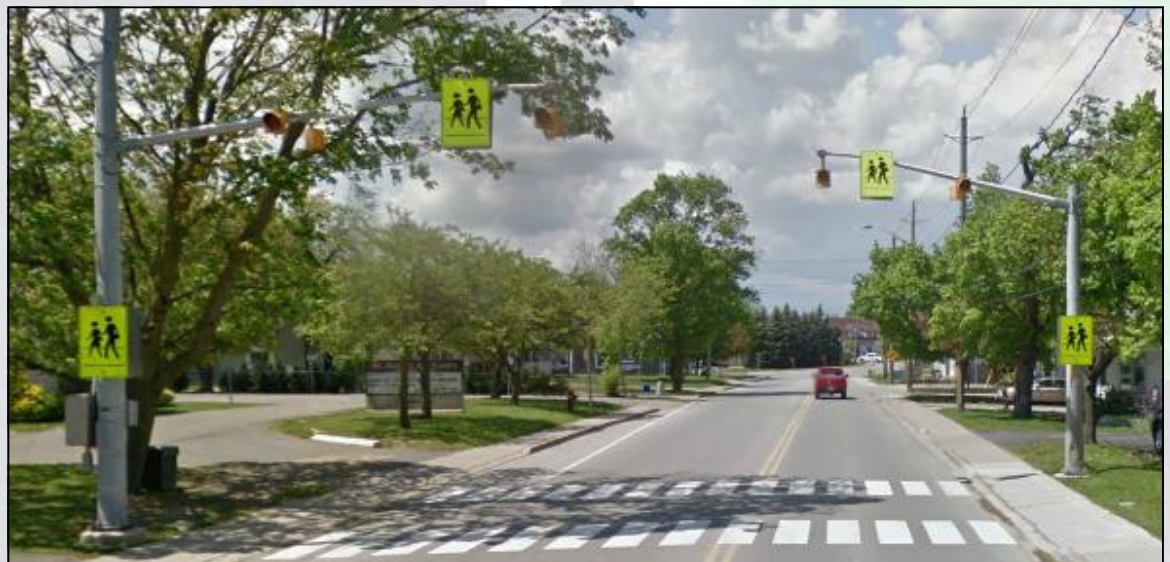
Des activités de contrôle policier occasionnelles l'année durant aux intersections et passages piétonniers ciblés.

La sécurité des piétons doit être abordée dans l'optique d'un travail de longue haleine. Cependant, dans une stratégie pour améliorer la sécurité des piétons, une approche basée sur la sensibilisation et le contrôle policier donnera de meilleurs résultats, c'est-à-dire une amélioration sensible et durable des comportements qui se traduira par une baisse des accidents et de la gravité des blessures.

Depuis sa création en 2005, l'Opération "Bon pied, bon œil" s'est étendue à plusieurs municipalités du Québec.

Roch Tremblay

Société de l'assurance automobile du Québec



Canadian Multidisciplinary Road Safety Conference XXIII

Conférence canadienne multidisciplinaire sur la sécurité routière XXII

The 23rd Canadian Multidisciplinary Road Safety Conference will be held in Montreal on May 26th - 29th, 2013. Details of the conference registration fees and the online registration system are available at: <http://www.cmrsc.polymtl.ca/cmrsc.htm>

Details of the conference programme have now been posted to the web site. The keynote speakers will be Lyne Vézina, SAAQ's Director of Studies and Road Safety Strategies and CARSP's Past President, and Michael W. Monk, PE, President of Active Safety Engineering and a Past Director of NHTSA's Vehicle Research and Test Center (VRTC).

The conference will include a broad range of technical papers on a variety of traffic safety issues including: mandatory age-based medical reviews, drinking and driving by indigenous Australians, "bumper" fractures in fatal crash investigations, EDR's and unintended acceleration and evaluating the safety performance of motorways.

La 23e Conférence canadienne multidisciplinaire sur la sécurité routière aura lieu à Montréal du 26 au 29 mai 2013. Les détails des frais d'inscription à la conférence et du système de réservation en ligne sont maintenant disponibles à : http://www.cmrsc.polymtl.ca/cmrsc_f.htm

Les détails du programme de la conférence ont été publiés sur le site web. Les conférenciers invités sont Lyne Vézina, directrice des études et des stratégies en sécurité routière à la Société de l'assurance automobile du Québec (SAAQ) et ancienne présidente de l'ACPSE, et l'ingénieur Michael W. Monk, président de Active Safety Engineering et ancien directeur du centre d'essais et de recherche automobile (VRTC) de la NHTSA.

La conférence comprendra un large éventail d'articles techniques sur des diverses questions relatives à la sécurité routière, y compris l'utilisation des moyens de retenue des enfants voyageant en voiture, les traumatismes et protections du rachis cervical, les aides à la mobilité motorisée, l'entraînement sur simulateur, et l'apport des indicateurs qualitatifs de risque routier.



Lyne Vézina



Michael W. Monk

Keynote Speakers / Conférenciers invités



Acknowledgements

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Editorial Board

- ◇ Sarah Blades — Canadian Road Safety Youth Committee, Halifax, NS
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- ◇ Josée Dumont — CIMA+, Burlington, ON
- ◇ Harold Faw — Trinity Western University, Langley, BC
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- ◇ Jeff Suggett — Associated Engineering, St. Catharines, ON
- ◇ Ward Vanlaar — Traffic Injury Research Foundation, Ottawa, ON
- ◇ Javier Zamora — LanammeUCR, University of Costa Rica, Costa Rica

Guest Contributors

- ◇ Craig Milligan — University of Manitoba, Winnipeg, MB
- ◇ Jennifer Russell — Child Safety Link, Halifax, NS
- ◇ Roch Tremblay — Société de l'assurance automobile du Québec, Québec, QC



Next issue

The theme of the next issue of the Safety Network will focused on the Canadian Multidisciplinary Road Safety Conference in Montreal. If you have any articles of interest on this topic, please forward them to Jeff Suggett (info@carsp.ca) by June 17th, 2013. Articles should be between 300 – 500 words and accompanying pictures/graphics are encouraged.



Prochain numéro

La prochaine édition du Réseau-Sécurité portera sur la 23e Conférence canadienne multidisciplinaire sur la sécurité routière à Montréal. Si vous avez un article sur le sujet ou êtes intéressés à en écrire un, vous êtes invités à envoyer vos contributions à Jeff Suggett (info@carsp.ca) avant le 17 juin 2013. Les articles devraient avoir entre 300 et 500 mots, et des photos ou graphiques les accompagnant sont les bienvenus.