The Official Newsletter of the Canadian Association of Road Safety Professionals

CARSP•ACPSER

The Safety Network
Le Réseau Sécurité

Le bulletin officiel de l'Association Canadienne des Professionnels de la Sécurité Routière

Safety Network Newsletter: Issue 2, November 2021

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Editorial

By Martin Lavallière

Martin Lavallière is a Professor of Kinesiology at UQAC and is a CARSP board member. He received his B.Sc., M.Sc. and Ph.D. in Kinesiology from Université Laval (Québec, Canada). His current research focus is on the impact on driving performance of aging, navigation and communication technologies and active safety systems in vehicles and their application on work related collisions. He also currently serves as a board member of the Quebec Road Safety Research Network.

It was my pleasure as a Co-Chair of the joint Canadian Association of Road Safety Professionals/ La Prévention Routière Internationale 2021 Conference and a member of the board of directors of CARSP to welcome more than 350 participants to our first virtual annual conference held this year in collaboration with PRI. It is also CARSP's 30th Conference and PRI's 14th Conference.

This year marked an important milestone for CARSP, after cancelling our 2020 conference that was to be held in Montréal (Qc), our 30th event had to morph into a virtual event, something that had never happened for us as an organization who takes great pride in gathering our members from coast to coast, and internationally, to exchange and share best practices in road safety across Canada.

Like many others COVID19 forced us to roll up our sleeves and think differently about this year's event. Putting in place a virtual event that would not only accommodate 6 Canadian different times zones but also be convenient for international participants and speakers was not an easy task. Despite all these challenges, partnering with PRI, TIRF and Desjardins and a wonderful group of volunteers made this event a huge success and we should be proud of what we have accomplished. Bringing together partners like these who share a similar vision of road safety only makes things easier, we all want to go in the same direction! A safer mobility for all! I also want to take a moment to thank once again all of our sponsors who made such an event possible. Your support at an event like this year's conference is greatly appreciated by all and clearly demonstrates your involvement in improving road safety.
To all the presenters who shared their studies or their practices, to all the students who presented us leading edge studies, thank you. The conference would not be such a knowledge hub without you.

The conference was also an opportunity for us to hear from our opening Keynote Speakers on the theme of the conference: Equitability: Road Safety for all through Vision Zero and Sustainable Safety. Participants had the chance to hear from Jean Todt, United Nations Special Envoy for

Road Safety who introduced us to the new decade of action for road safety which aims at reducing by half road traffic death and injuries worldwide and to provide access to safe, sustainable, and affordable transport to all by 2030.

Dr. Etienne Krug, Director of the Social Determinants of Health at World Health Organization walked us through the 2nd Decade of Action on Road Safety. He showed us that in road safety, effective measures for its improvement are led by effective lead agencies, good data (data driven decisions), strong laws/ enforcement, safe vehicles, sound infrastructure, and life-saving trauma care, and more importantly, that all these actions have to be led by a strong political will. He finished by presenting us a quote from The New Yorker: "When the people of the future look back at our century of auto life, will they regard it as a useful stage of forward motion or as a wrong turn? Is it possible that, 100 years from now, the age of gassing up and driving will be seen as just a cul-de-sac in transportation history, a trip we never should have taken?" Dr. Krugg specifically encouraged us to move from a century of unsafe, dirty & passive transport to a century of safe, clean & active transport.

(WHO)

Then, Zoleka Mandela gave a vibrant testimony on why we should devote more efforts on improving road safety for all, and especially in developing countries where kids are at the forefront of the danger on our roads. She also reminded us that community and people can make things change when they share a common dream for their future.

These Keynote Speakers paved the way for an energizing 3 days of conference presentations where ideas and solutions were shared among participants. These Speakers and the last few months have shown us that when we work together and in the same direction, we can achieve much.

The challenges that the COVID-19 pandemic has brought are similar to those we face on a daily basis to improve road safety and several of the panels and presentations that you had the opportunity to hear during the conference attested to this: communication, economic issues, technological issues, cultural issues, and public health issues.

It was a pleasure being your host during the conference. I hope I will see you next year in Sudbury!

Autonomous Vehicles and Vehicular Technologies: Where are we now?

On Wednesday, August 25th, a panel entitled “Autonomous Vehicles and Vehicular Technologies: Where are we now?” was presented.

Professor Brenda Vrkjlan of McMaster University opened this panel with various examples of how mobility is such an important factor in people’s lives and how technology and tailored interventions can lead to maintaining a driver license and doing it safely. Through various examples of research conducted in Canada and abroad, Professor Vrkjlan explained how older drivers perceive some of these technologies and suggested ways of using them to help them maintain safe driving across aging.

Mr. Alain Areal, General Manager of the Portuguese Road Safety Association, representative in the European Transport Safety Council (ETSC), and Vice-President of La Prévention Routière International, presented us with the approach used in Europe for the deployment of connected and automated mobility. Their role is mainly at the developing policies and strategies in close collaboration with various stakeholders. He listed 11 thematic areas that are at the forefront of the evaluation and the deployment of such technologies.

Dr. Bryan Reimer, research scientist at MIT AgeLab and CTL, provided us with numerous examples of why advanced safety systems still represent a challenge for road safety since people might reallocate their attention elsewhere than on the road when using them. He explained to us why the projected benefits of such systems might not have reached their target as seen on crash and claims data. More specifically, he reminded us that technologists often assume ideal performance from both the system and the human.

Finally, Mr. Michael Kennedy, Vice-President of Marketing Strategy and Foundations for the Ontario, Atlantic and West Regions at Desjardins, showed us how these technologies have influenced the insurance sectors with their impacts on collision reductions and claims and most importantly, death and injuries. He shared his concerns on how interventions should be people-centric so that people who are unfortunately involved in a crash are treated fairly and fast.

Overall, this panel’s presentations led to various questions from the public from the necessity of data sharing to better understanding the underlying mechanism associated with the use of such technologies and their impact on crashes and claims.

Éditorial

Par Martin Lavallière

Martin Lavallière est professeur en kinésiologie au Département des sciences de la santé de l'Université du Québec à Chicoutimi (UQAC) et est membre de l'Association canadienne des professionnels de la sécurité routière (ACPSER). Il a obtenu son baccalauréat (B.Sc.), sa maîtrise (M.Sc.) et son doctorat (Ph.D.) en kinésiologie de l'Université Laval (Québec, Canada). Ses recherches actuelles portent sur l'impact des performances de conduite sur le vieillissement, les technologies de navigation et de communication et les systèmes de sécurité active dans les véhicules et leur application sur les collisions liées au travail. Il est également membre du comité exécutif du Réseau de recherche en sécurité routière du Québec (RRSR).

J'ai eu le plaisir, en tant que co-président de la Conférence conjointe 2021 de l'Association canadienne des professionnels de la sécurité routière (ACPSER) et de La Prévention Routière Internationale (PRI) et en tant que membre du conseil d'administration de l'ACPSER, d'accueillir plus de 300 participants et participantes à notre première conférence virtuelle tenue cette année en collaboration avec PRI. Il s'agissait de la 30^{e} conférence de l'ACPSER et de la 14^{e} conférence de la PRI.

Cette année a marqué une étape importante pour l'ACPSER après l'annulation de notre conférence 2020, qui devait se tenir à Montréal, Québec. Notre 30^{e} événement a dû se transformer en un événement virtuel, ce qui n'était jamais arrivé pour nous en tant qu'organisation. Notre organisation a été très fière de rassembler nos membres d'un océan à l'autre ainsi qu'à l'échelle internationale afin d'échanger et partager les meilleures pratiques en matière de sécurité routière à travers le Canada.

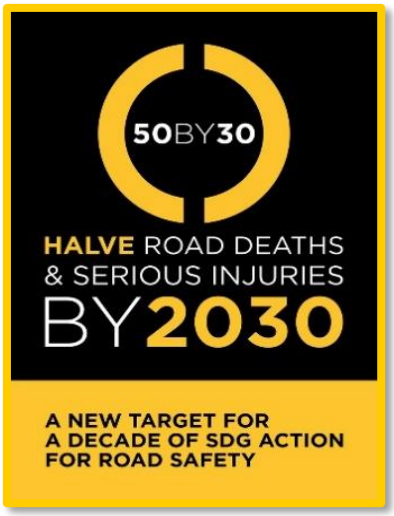
Comme beaucoup d'autres, la COVID-19 nous a obligés à retrousser nos manches et à penser différemment l'événement de cette année. Orchestrer un événement virtuel qui, non seulement, s'adapterait à cinq fuseaux horaires canadiens, mais qui serait également commode pour les participants et participantes, les conférenciers et conférencières au niveau international, n'était pas une tâche facile. Malgré tous ces défis, le partenariat avec la PRI, la Fondation de recherches sur les blessures de la route (FRBR), Desjardins et un merveilleux groupe de bénévoles ont fait de cet événement un énorme succès et nous devons être fiers de ce que nous avons accompli. Réunir des partenaires comme ceux-ci, qui partagent une vision similaire de la sécurité routière, ne fait que faciliter les choses; nous voulons tous et toutes nous diriger vers la même direction : une mobilité plus sûre pour tous !

Je souhaite également profiter de ces quelques lignes pour remercier encore une fois tous nos commanditaires, qui ont rendu possible un tel événement, ainsi que les participants et participantes. Votre soutien à un événement comme la conférence de cette année est grandement

apprécié de tous et de toutes et démontre clairement votre implication dans l'amélioration de la sécurité routière.

À tous les présentateurs et à toutes les présentatrices qui ont partagé leurs études ou leurs pratiques, à tous les étudiants et à toutes les étudiantes qui nous ont présenté des études de pointe, merci ! La conférence ne serait pas un tel carrefour de connaissances sans vous.
La conférence a également été l'occasion pour nous d'entendre notre table ronde d'ouverture sous le thème de la conférence : « L'équité : la sécurité routière pour tous grâce à la Vision zéro et à la sécurité routière ». Les participants et participantes ont eu la chance d'entendre Jean Todt de l'Organisation mondiale de la Santé (OMS) nous présenter la seconde Décennie d'action pour la sécurité routière, qui vise à réduire de moitié le nombre de décès et de traumatismes dus aux collisions routières dans le monde. Cette Décennie vise également de fournir un accès à des transports sûrs, durables et abordables d'ici 2030 pour tous et toutes. Il a souligné les cinq mécanismes principaux pour atteindre ces objectifs : 1- chaque pays devrait élaborer une stratégie nationale de sécurité routière et un plan d'action; 2- les interventions doivent être financées différemment et les actions doivent être coordonnées; 3- le secteur privé devrait également contribuer à la sécurité routière; 4- il faut plaider pour un système de transport plus sûr, surtout pendant la reprise suite à la COVID-19, et positionner la sécurité routière durant cette transition; 5- le financement à l'échelle nationale, régionale et internationale est essentielle pour l'atteinte des objectifs. M. Todt nous a rappelé que le contexte sanitaire actuel a amplifié les inégalités présentes dans notre système.

M. Etienne Krug, directeur des Départements sociaux de la santé de l'OMS, nous a guidé à travers la deuxième Décennie d'action pour la sécurité routière. Il nous a montré qu'en matière de sécurité routière, les mesures efficaces pour son amélioration sont menées par un chef de file du secteur efficace, des données de qualité (décisions fondées sur les données), des lois et des mesures d'application strictes, des véhicules sûrs, une infrastructure solide et des soins de traumatologie qui sauvent des vies. Qui plus est, toutes ces actions doivent être menées par une forte volonté politique. M. Krug a terminé en nous présentant une citation du *New Yorker* : « Lorsque les gens du futur se pencheront sur notre siècle de vie automobile, le considéreront-ils comme une étape utile de la marche en avant ou comme un mauvais virage ? Est-il possible que, dans 100 ans, l'ère du plein d'essence et de la conduite soit considérée comme un cul-de-sac dans l'histoire des transports, un voyage que nous n'aurions jamais dû faire ? ». Il nous a spécifiquement encouragés à passer d'un siècle de transports dangereux, souillés et passifs à un siècle de transports sûrs, propres et actifs.



(WHO)

Enfin, Zoleka Mandela a livré un vibrant témoignage sur les raisons pour lesquelles nous devrions consacrer plus d'efforts à l'amélioration de la sécurité routière pour tous et toutes, et en particulier dans les pays en développement où les enfants sont au premier plan de la dangerosité de nos routes. Elle nous a également rappelés que les communautés et les peuples peuvent faire

évoluer les choses lorsqu'ils partagent un rêve commun pour leur avenir; un tel renforcement des intentions peut faire évoluer les choses.

Cette table ronde a ouvert la voie à trois jours de conférence stimulants où des idées et des solutions ont été partagées entre les participants et les participantes. Ces conférenciers et cette conférencière et les derniers mois nous ont montré que lorsque nous travaillons ensemble et dans le même sens, nous pouvons bien faire, mais surtout faire mieux.

Les défis auxquels la pandémie de la COVID-19 nous a confrontés sont similaires à ceux auxquels nous sommes confrontés au quotidien pour améliorer la sécurité routière et plusieurs des tables rondes et présentations que vous avez eu l'occasion d'entendre pendant la conférence en témoignent : la communication, les enjeux économiques, les enjeux technologiques, les enjeux culturels et les enjeux de santé publique.

Ce fut un plaisir d'être votre hôte pendant la conférence, j'espère vous voir l'année prochaine à Sudbury !

Véhicules autonomes et technologies véhiculaires : où en sommes-nous ?

Le mercredi 25 août, une table ronde intitulée « Véhicules autonomes et technologies véhiculaires : où en sommes-nous ? » a été présentée.

Professeure Brenda Vrkjlan de l'Université McMaster a ouvert cette table ronde avec divers exemples sur la façon dont la mobilité est un facteur très important dans la vie des gens et la manière dont la technologie et les interventions adaptées pourraient, non seulement, permettre de conserver un permis de conduire, mais aussi de le faire en toute sécurité. À l'aide de divers exemples de recherches menées au Canada et à l'étranger, professeure Vrkjlan nous a expliqué comment les conducteurs âgés perçoivent certaines de ces technologies. Elle a également suggéré des moyens de les utiliser pour les aider à conserver une conduite sécuritaire en vieillissant.

M. Alain Areal, directeur général de l'Agence de prévention routière portugaise, représentant au *Conseil européen pour la sécurité des transports* (ETSC) et premier vice-président de La Prévention Routière Internationale, nous a présenté l'approche utilisée en Europe pour le déploiement de la mobilité connectée et automatisée. Leur rôle consiste principalement à élaborer des politiques et des stratégies en étroite collaboration avec les différentes parties prenantes. Il a clarifié 11 domaines thématiques qui sont à la pointe de l'évaluation et du déploiement de ces technologies.

Dr. Bryan Reimer, chercheur au *MIT AgeLab* et au *Center for Transportation and Logistics* (CTL), nous a présenté de nombreux exemples montrant les raisons pour lesquelles les systèmes de sécurité avancés représentent toujours un défi pour la sécurité routière, car les gens peuvent orienter leur attention ailleurs que sur la route lorsqu'ils les utilisent. Il nous a expliqué pourquoi les avantages projetés de ces systèmes n'ont peut-être pas atteint leur objectif, comme le montrent les données sur les collisions et les réclamations. Plus précisément, il nous a rappelé que les technologues supposent souvent une performance idéale à la fois du système et de

l'humain dans une infrastructure loin d'être idéale et que cette énigme n'a pas encore été résolue lorsqu'une personne prend le volant.

Enfin, M. Michael Kennedy, vice-président stratégies marketing et fondations pour les régions de l'Ontario, de l'Atlantique et de l'Ouest chez Desjardins, nous a montré comment ces technologies ont influencé les secteurs de l'assurance avec leurs impacts sur la réduction des collisions et des réclamations et, surtout, les décès et les blessures. Il a également soulevé le fait que pour une collision similaire, le coût des réparations est maintenant plus élevé en raison de ces collisions. Il a partagé ses inquiétudes sur la façon dont les interventions devraient être centrées sur l'individu afin que les personnes malheureusement impliquées dans une collision soient traitées équitablement et rapidement.

Dans l'ensemble, cette table ronde a suscité diverses questions du public sur la nécessité de partager les données afin de mieux comprendre le mécanisme sous-jacent associé à l'utilisation de ces technologies et leur impact sur les collisions et les réclamations.

CARSP Annual General Meeting Report

By Brenda Suggett

Brenda Suggett is CARSP's Executive Director. She joined CARSP in 2010. Prior to that, Brenda was an Epidemiologist in Public Health for 15 years.

CARSP held their Annual General Meeting (AGM) on Tuesday August 24th, 2021, the second full day of the 30th CARSP Conference. This year's conference was a joint one with Prevention Routière International, in collaboration with TIRF and Desjardins. Mavis Johnson, CARSP's Acting President, chaired the meeting. Mavis welcomed the conference delegates and provided an overview of CARSP's organizational structure. She then introduced CARSP's Executive Director, Brenda Suggett, the CARSP Board of Directors and CARSP's four committee chairs:

- Structure and Governance (S&G) Committee (vacant),
- Membership and Marketing (M&M) Committee (Brian Jonah),
- Finance (F) Committee (Paul Boase), and the
- Young Professionals' Committee (YPC) (Robert Colonna)

Mavis then thanked the outgoing Board Directors, namely: Shabnem Afzal, Tony Churchill, Alexander Crizzle, Trevor Lehouillier, Alexandre Nolet, Liz Owens, and Rob Wilkinson.
Paul Boase, CARSP Treasurer, presented the 2020 financial statements and the 2021 budget to the webinar attendees. Paul also shared the fact that CARSP had commissioned a review engagement of its 2020 and 2019 financial records and that we were found to be following sound accounting procedures for non-profit associations. Lastly, Paul stated that sometime next week a Survey Monkey poll will be sent to the CARSP membership, to enable them to vote for two resolutions. The actual resolutions and the results of the poll are listed below:

- That the 2020 financial statement and 2021 budget be accepted as presented.
- That CARSP, being a non-soliciting not-for-profit corporation will conduct a review engagement for 2021.

Brenda provided an overview of the following activities:

- CARSP/PRI 2021 Conference – Virtual conference in conjunction with PRI, TIRF and Desjardins. Currently have: 350+ Delegates, 3 Keynotes, 4 Panels, 100 presentations (slide decks and Posters); big emphasis on students and young professionals.
- Knowledge Exchange and Training Hub
    - Funding from Transport Canada
    - Components of Project
    - Knowledge Exchange
        - Road Safety Information
        - Advanced Vehicle Safety System

        - Refresh of Newsletter
    - Training
        - Needs Assessment
        - Inventory of Membership – Needs and Areas of work
        - Expand Webinars / Workshops
- Member Survey Results
    - Some results presented – number of years CARSP member, employer, province/territory, topics like to learn more about, topics/issues currently working on.
- Strategic Plan
    - Updated to align with Vision Zero, Safe Systems Approach, and the Decade of Action for Road Safety.

Young Professionals Committee & Conference-related Events

Robert gave an activity update for their committee:

- YPC is a sub-committee of CARSP
- Composed of a multidisciplinary group of students and young professionals studying and working across Canada in road safety
- Backgrounds include, but are not limited to, engineering, injury prevention, public policy, public health, medicine, and psychology
- Their vision is: The YPC believes Canadian youth can work together to create safer transportation networks for all road users.
- Their mission statement is: To build capacity for the road safety profession by generating awareness, advocating for evidence-based public policy and programming, and maintaining a national network of young road safety professionals.
- The YPC activities includes running the student paper and poster competitions at the annual conference and hosting networking and professional development events both at the conference and outside of it.
- In the past few years, we hosted a networking event for youth professionals at the 6th Ontario Road Safety Forum and held our first virtual event a few weeks ago.
- We are also proud to announce that in the last year, we expanded the committee to include 3 new executive members, and approx. 15 new "members at large". The new "member at large" role includes young professionals who want to stay connected and join the occasional YPC event but might not have the time commitment for an executive role.
- We are always welcoming new members interested in joining the YPC: If you want to learn more or are if you're interested in joining the YPC, please email me at ypc_chair@carsp.ca

Newsletter

Robert then provided some background on the CARSP's official newsletter. The newsletter is available to CARSP members and the public, however, only the CARSP members get access to

the most recent edition. He also presented this year's Editorial Committee. The members are as follows:

- Chief-Editor (vacant)
- Geni Bahar, NAVIGATS Inc
- Jean-François Bruneau, Polytechnique Montréal
- Mary Chipman, University of Toronto
- Alan German, Road Safety Research
- Martin Lavallière, Université du Québec à Chicoutimi
- Rebecca Peterniak, City of Winnipeg
- Robert Colonna, Western University
- Karen Bowman, TIRF
- Julie Taylor, Parachute
- James Fitzpatrick, Newell Brands

Other information Robert provided on the newsletter is:

- On average, we publish 4 newsletters each year on a range of topics. Expect an issue covering this year's virtual conference in the coming months,
- We are always looking for your input and for volunteers to contribute in any capacity they can. This includes helping with the writing, editing, or translation of articles. On average, we meet for 8 teleconferences per year.
- We are also looking for a new editor. If you are interested, please contact Brenda Suggett.
- The results of the member survey are going to help inform the revamp of the newsletter and we would love for you to be a part!

Announcement

Brian Jonah, the Chair of the 2022 CARSP conference, announced that it will be in Sudbury Ontario. Dates are June 19-22, 2022. More details to follow later this year.

CARSP Conference 2022 from June 19-22, 2022 in Sudbury

CARSP Young Professionals Committee

By Robert Colonna

Robert is a Board member of CARSP and the Chair of their Young Professionals' Committee. He is also a Ph.D. student in the i-Mobile Driving Research Lab at Western University. His research focuses on improving public health through road safety interventions, specifically related to cannabis use and impaired driving among youth.

Students' & Young Professionals' Symposium

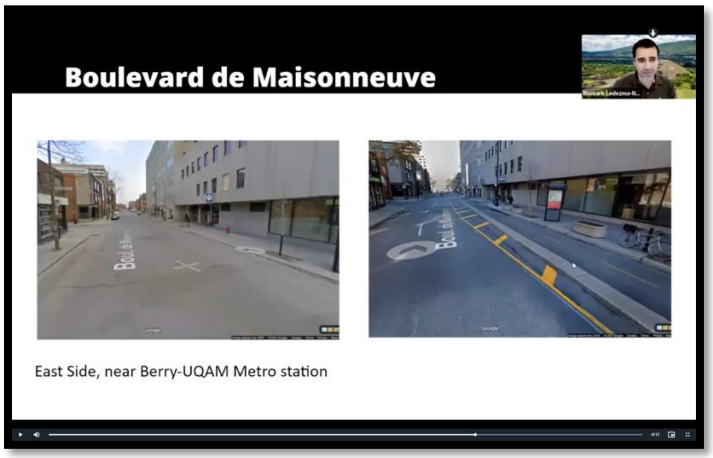
The Students' & Young Professionals' Symposium was one of the highlights at the 2021 CARSP/PRI Joint Virtual Conference. The Symposium was sponsored by Desjardins and hosted in partnership with Parachute, Traffic Injury Research Foundation (TIRF) and the CARSP Young Professionals Committee (YPC). The Symposium provided an opportunity for students and young professionals with an interest in road safety and Vision Zero to come together and explore the conference's theme (Equitability: Road Safety for all through Vision Zero and Sustainable Safety).

On the first day, the Career panel provided students and young professionals with the opportunity to gain first-hand information and practical advice on various careers in road safety. We gratefully thank each of our three panellists for their participation and for sharing their experiences!

Pictured: *Moderator*: Robert Colonna (Chair, YPC). *Panelists*: Bartek Komorowski (Planning and Design Advisor- Team Leader at the City of Montreal), Nadia Fourik (Leader for Health

Promotion and Prevention at Vancouver Coastal Health), and Andrew Sedor (Transportation Strategist at the City of Calgary).

On the second day, participants learned more about the Vision Zero elements and dynamic initiatives the road safety team implemented at the City of Montreal. We thank our presenters, Irena Nedeva (GIS Analyst, City of Montreal) and Bismarck Navarro (Project Manager, Transoft), for their interactive presentation and for providing valuable resources, such as Montreal's Vision Zero Interactive Map.



Pictured: slides from the Virtual Walkabout: Vision Zero in Montreal presentation.

On the last day, students and young professionals who joined our Networking Event were connected with representatives from various road safety organizations. These included the FIA Foundation, Ontario Students Against Impaired Driving, Parachute, Traffic Injury Research Foundation, Transport Canada, and Société de l'assurance automobile du Québec. We thank each organization's representatives for participating and answering participant questions, along with our moderators (Heather Woods-Fry, Anuisa Ranjan, and Robert Colonna).

CARSP Conference Awards

The Charles H. Miller award is given to the best Research and Evaluation Paper presented at the CARSP conference based on technical and scientific merit. This year, the award was given to a Team of Researchers from the Innovation Centre of Transport Canada, who are featured in the accompanying photo, for their paper entitled “Advanced Driver Assistance Systems in Winter Conditions”. The objective of the paper is “To develop and implement test procedures for assessing the performance of ADAS in winter conditions”.

From left to right: Shivang Dube, Dominique Charlebois (lead), Benoit Anctil, Guillaume Pierre, and Annie Saleh

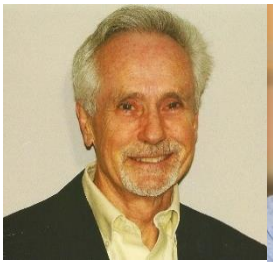
The Mavis Johnson Traffic Safety Award is given to the Best Policy and Practice Project presented at the CARSP Conference based on its overall quality and applicability to the field of road safety. This year the award was given to Nora Hallett of the City of Toronto, and Lana Samara with Transoft Solutions (ITS), for their project entitled “Toronto's Vision Zero Before-After Evaluation of a Left Turn Calming Pilot.” The objective of this project was “To evaluate the effectiveness of a pilot project intended to slow down left turning vehicles and reduce conflicts with pedestrians at 10 intersections using video-based surrogate safety methods.”

Nora Hallett, City of Toronto

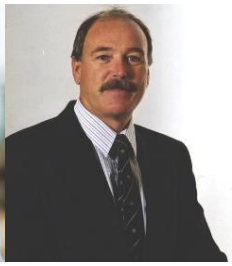
Lana Samara, Transoft Solutions

The CARSP Lifetime Achievement Award for Road Safety is presented annually to individuals who have made a positive impact on road safety in Canada. Candidates will have had a career in this field and have also made contributions to the Canadian Association of Road Safety

Professionals. This year the award went to five individuals who made outstanding contributions to the field of road safety, and significant contributions to CARSP. These five people are: Dr. Doug Beirness, CCSA, Beirness & Associates, and CanDART; Mr. JL Comeau, Transport Canada; Dr. John Morrall, University of Calgary; Ms. Liz Owens, Alberta Transportation; and Dr. Robert Mann, CAMH. Awards were presented by Mr. Steve Sanderson, President of Accident Support Services International who sponsored the awards, and Ms. Brenda Suggett, Executive Director of CARSP.
Congratulations again to all award recipients!


Dr. Doug Beirness


Mr. JL Comeau


Dr. John Morrall

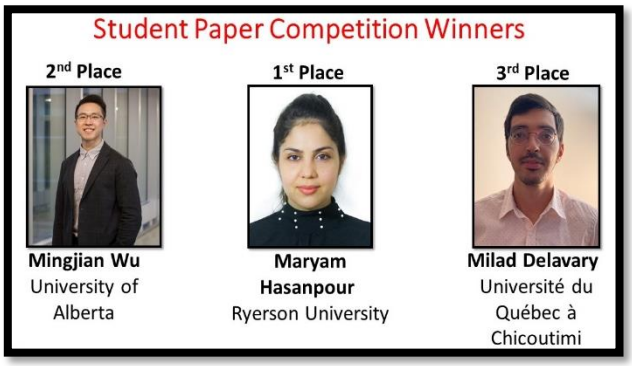

Ms. Liz Owens

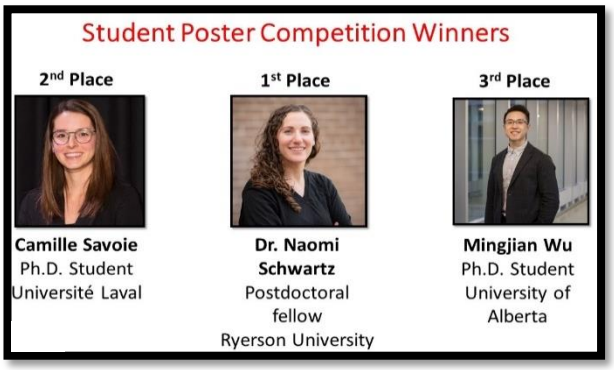

Dr. Robert Mann

Student Paper & Poster Competitions

In addition to the Student and Young Professionals Symposium, the Young Professionals Committee (YPC) also hosted the Student Paper Competition (sponsored by CAA Quebec) and the Student Poster Competition. Together, we received nine high-quality submissions from students across Canada. Thank you to all the writers and reviewers for their time and effort. The reviewers noted that this year's papers were some of the best they have read! If you haven't had a chance to view the presentations and posters from our winners, be sure to check them out on Pheedloop (available online until March 2022). Congratulations to all our winners!

P.S. We look forward to bringing back the 50/50 Raffle and the YPC Social at the 2022 CARSP conference. See you all there!





Pictured: Winners of the Student Paper & Poster Competitions.

Road Safety Professional (RSP) Certification

By Geni Bahar, P.Eng., P.E., RSP2I, FITE

Geni Bahar, P.Eng., P.E., RSP2I, FITE has served as the president of NAVIGATS Inc. since 2008 and is a civil engineer with 40 years of professional experience as a researcher and a practitioner. Geni is serving in the Board of Directors of the Transportation Professional Certification Board (TPCB) as the Director in charge of the Road Safety Professional (RSP) Certification. Geni was awarded "Transportation Person of the Year 2007" by TAC and Transport Canada in recognition of her leadership roles during her career and her direct contributions to the improvement and advancement of safety in the transportation industry.

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There have been tremendous advancements in the area of road safety over the past two decades. Practices such as Vision Zero, Toward Zero Deaths, and the Safe System approach have helped foster a culture of road safety in the Sweden, Australia, Canada, United States, and many other places in the world, leading to road safety being more widely recognized as a discipline within the profession. These practices are reinforced by local municipalities, provinces, and states implementing data-driven strategic road safety plans, all with the goal of achieving fewer serious injuries and deaths on roadways.

The need for a science-based approach to road safety—one that incorporates the quantification of the expected road safety consequence of decisions based on evidence-based knowledge and experience, recognizing the intrinsic relationships among road design, traffic engineering, human behavior, vehicle type, emergency services, and user interaction with the road—has become prominent as more road authorities and public attention are increasingly focused on road safety. The need for a road safety certification program has long been recognized by those involved in road safety workforce development at all levels of public and private sectors. At the same time, the road safety field has broadened significantly with the emergence of the AASHTO Highway Safety Manual, a growing base of safety research knowledge, and a variety of new analytical tools, methods, and technologies. With very limited traditional education in transportation and road safety at the colleges and universities, the need for standardizing a safety credential for road safety professionals working in the field becomes even more imperative. More generally, it has been shown that certification programs can help incentivize continuing education outside the setting of a formal institution, and support career advancement and higher salaries. All these factors and more led to the establishment of the Road Safety Professional (RSP) Certification.

Development and Approach

The concept of a RSP designation had its origins in Canada in 2013 when the Road Safety Standing Committee (RSSC) of Transportation Association of Canada (TAC) adopted a five-year strategic plan (2014-2018). One of the key outcomes of the strategic planning process was the identification of the need for an RSP designation within Canada to formalize the road safety skill-set by means of academic training and experience, in a similar manner as in other professional designations. The RSP designation would indicate there is a standardized and recognized professional preparedness to practice as a road safety professional, recognizing the multidisciplinary facets of road safety work and the professionalism within this work. The RSSC formed a Road Safety Professional (RSP) Subcommittee to develop a white paper, undertake a market demand study, analyze certification business models, and embark on an outreach effort. Around the same time, the Transportation Professional Certification Board (TPCB) began exploring the need for an additional certification to add to the existing Professional Transportation Operations Engineer (PTOE) and Professional Transportation Planner (PTP) certifications. The TPCB, created in 1999, is an autonomous non-profit certification body affiliated with the Institute of Transportation Engineers (ITE). A survey conducted among existing TPCB certificants as well as the general ITE membership identified road safety as the top priority. In 2016, the RSSC's RSP Subcommittee joined forces with the TPCB toward the development of a Canadian-U.S. RSP certification.

The goal of the RSP certification is to allow transportation professionals to demonstrate their competency to provide for the safety of the travelling public and validates road safety as a science-based profession. The establishment of the RSP in the United States and Canada included broad-based involvement of transportation and safety organizations and associations. Under the leadership of ITE Executive Director and CEO Jeffrey F. Paniati, P.E. (F), a Steering Committee was formed, representing a wide range of transportation and safety organizations in the United States and Canada, including the Federal Highway Administration (FHWA), National Highway Traffic Safety Administration (NHTSA), Association American Association of State Highway and Transportation Officials (AASHTO), Highway Safety Research Center of the University of North Carolina at Chapel Hill, Roadway Safety Foundation, AAA Foundation, Canadian Council of Motor Transport Administrators (CCMTA), Transport Canada, Association québécoise des transports (AQTr), **Canadian Association of Road Safety Professionals (CARSP),** the ITE Canadian District, and members of the RSSC RSP Subcommittee. Twenty-five Steering Committee members laid the groundwork for the RSP certification by defining the structure, target audience, prerequisites, draft domains and subdomains of knowledge, and preliminary list of references; and by identifying recognized subject-matter experts (SMEs) in Canada and the United States.

The RSP certification exams were developed using a structured, industry-standard process guided by test development experts from Scantron (formerly Castle Worldwide), a licensure and

certification testing company that has supported the TPCB since its inception. Scantron staff guided the SMEs through the process of expanding and confirming knowledge domains, conducting a validation survey of practitioners, identifying references, developing exam questions, and building the exams. In October 2018, the first RSP certification exam for Level 1 (RSP1) was offered. This was followed by the Level 2 (RSP2) in infrastructure (RSP2I) and behavioural (RSP2B) specialty areas in October 2019.

In May 2020, the TPCB initiated a collaboration with the Saudi Arabia National Safety Research Center (NSRC) to adapt the RSP certification for certifying Saudi Arabian transportation professionals. This development followed the same structured, industry-standard process used to develop the North American RSP certifications. The RSP1 exam was offered in Saudi Arabia in June 2021 and the first RSP2 certification exam in infrastructure will be offered in June 2022.

RSP1

The Level 1 certification demonstrates expertise in road safety's **multidisciplinary** dimensions. The exam is for a broad audience of professionals. The minimum qualifications for the Level 1 certification include either a bachelor's degree from an accredited university and a minimum of two years' experience in transportation, highway safety, or public health, or a minimum of four years' professional experience in the transportation, highway safety, or public health fields. The Level 1 exam audience includes but is not limited to those involved with program administration and operations; research and education; planning and design; data collection and analysis; emergency response and crash investigation; policy and regulation; etc.

Level 1 Knowledge Domains

- Foundations of Road Safety
- Measuring Safety
- Human Behaviour and Road Safety
- Solving Safety Problems
- Implementing Road Safety Programs

The exam is a three-hour, 75 multiple-choice question, qualitative exam.

RSP2

The Level 2 certification builds on the Level 1 certification and is a higher level of certification that demonstrates deeper level of understanding and proficiency in road safety science. The audience for this exam is any professional whose primary job functions are directed at improving the safety performance of the surface transportation system. Prospective certificants typically select between a Level 2 certification with a "behavioural specialty," or Level 2 certification with an "infrastructure specialty" (RSP2B and RSP2I, respectively), or choose to take the two separate exams for the two specialties. The minimum qualifications for the Level 2 include either a bachelor's degree from an accredited university and a minimum of five years' professional

experience in transportation, highway safety or public health; or a minimum of 10 years' professional experience in the transportation, highway safety, or public health fields.

Level 2 (B) Knowledge Domains – Behavioural Specialty

- Fundamentals
- Road Safety Program Management
- Safety Data and Analysis
- Target Crashes and Countermeasures
- Human Health and Transportation Modes
- Public Health and Transportation Safety
- Addressing Safety Problems with Public Policy (Law, Regulation, Policies, and Standards)
- Strategic Safety Planning
- Safe System Approach

Level 2 (I) Knowledge Domains – Infrastructure Specialty

- Fundamentals
- Road Safety Management
- Acquiring and Using Safety Data
- Crash Prediction and Trend Interpretation
- Target Crashes and Countermeasures
- Multimodal Transportation Safety
- Addressing Safety Problems with Policy
- Safe Systems and Vision Zero Approaches

The exams for the RSP2B and RSP2I are each three-hour, 75 multiple-choice question exams. The questions are both qualitative and quantitative.

How to Become Certified and Continuing Professional Education

Those interested in obtaining the RSP certification can submit an online application to the TPCB at www.tpcb.org/certification/ rsp1/online-application/ or www.tpcb.org/certification/road-safety-professional-2/online-application/ for review and approval.

The RSP exams are offered three times per year: February 1-28; June 1-30; October 1-31, and the respective application deadlines are December 3; April 4; and August 6. Exams can be scheduled at any one of the 37 Scantron testing centers in Canada. There are 1,350 Scantron testing centers in 115 countries worldwide.

The application / examination fee is $100 USD and the three-year certification fee for RSP1 is $180 USD, and for either the RSP1 or RSP2 is $315 USD. Holders of the PTOE and/or PTP certifications pay a reduced fee for multiple certifications.

Renewal of the certifications is contingent on fulfillment of continuing education requirements (i.e., 24 professional development hours [PDHs] for RSP1 to renew, 45 PDHs for the RSP1 and one RSP2 to renew, or 60 PDHs for the RSP1 and two RSP2 to renew). More information on the RSP certifications is available on the TPCB website at www.tpcb.org/certification.

Early Progress

Three years since the first offer of RSP1 certification exam, a total of 546 RSP1s are certified in North America (456 in United States and 90 in Canada), 10 RSP1s in Saudi Arabia, and three in other countries. Almost two years since the first offer of the RSP2 certification exam, a total of 106 RSP2s are certified in North America (96 in United States and 10 in Canada). Of the certified RSP2s, there are 87 in the infrastructure specialty and 19 in the behavioural specialty.
Figure 1 shows the distribution of RSP certificants — both RSP1 and the two specialties of RSP2—by geographic location.

Figure 1 – Geographic Distribution of certified Road Safety Professional worldwide

Names of the RSP certificants can be found here[1]. These RSP certificants can proudly show that they are accredited in the road safety discipline, and be recognized by their colleagues, clients, and the communities they serve.

Long-term Vision

In the three years since its launch, the RSP certification has been widely accepted as recognized proof that the certificate holder possesses a wide range of basic safety knowledge in the transportation field. The success of this certification is expected to continue to grow as more agencies and employers recognize the importance of having professionals on staff who hold possess this critical knowledge. Public agencies are also beginning to require or give preference to proposals that include an RSP.

[1] Disclaimer: The information at this link is provided by a third party and has not being vetted by CARSP.

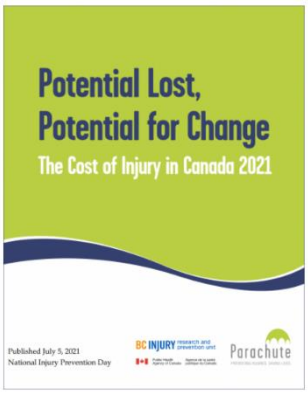
The Cost of Transport Injuries in Canada

By Julie Taylor, Manager, Knowledge Translation and Programs, Parachute

Julie joined Parachute in 2012 and manages injury prevention programming and campaigns in the areas of road safety and child safety.
She has lead inter-disciplinary teams in the development, implementation and evaluation of national and provincial health promotion projects and events in the nonprofit and charitable sector for more than 15 years. At Parachute, Julie leads a number of initiatives including Parachute Vision Zero, a multi-national road safety initiative, and Elementary Road Safety, a program designed to make school zones safer.

Abstract

In 2021, Parachute published the *Cost of Injury in Canada* report that quantifies the cost of injury from a societal perspective, including costs to the health-care system, to productivity and to the people behind the numbers: individuals, families, and communities. The report revealed that, in a single year, transport injuries cost the health care system and society $3.6 billion, and resulted in 1,759 deaths, 23,872 hospitalizations, 366,444 emergency department (ED) visits, and 5714 disabilities. These numbers reveal the massive human and economic burden of transport injuries in Canada. Critically, this is an entirely preventable issue. Parachute encourages road safety professionals to champion policies, spaces and practices that eliminate serious injuries and deaths on Canadian roads and offers resources support Vision Zero planning and implementation across the country.



The Cost of Transport injuries in Canada Report

In 2021, Parachute released the fourth *Cost of Injury in Canada* report that quantifies the cost of injury from a societal perspective, including costs to the health-care system, to productivity and to the people behind the numbers: individuals, families and communities. The *Cost of Injury in Canada* report presents 2018 data at the national level, accounting for all provinces and territories, analysed using an incidence-costing, human-capital approach. The report found that the total cost of injury for 2018 was $29.4 billion, with 17,475 deaths, 231,530 hospitalizations, 4.6 million emergency department visits, and 61,400 disabilities. Injuries remain the leading cause of death for Canadians aged 1 to 44 years.

Falls and transport incidents contribute the highest total costs for injuries. These two causes combined added $13.8 billion, making up almost half (47 per cent) of the cost of injury. Addressing these two injury issues has the potential to change the story of injury in Canada.

The human cost of transport injuries

In a single year, transport injuries resulted in 1,759 deaths, 23,872 hospitalizations, 366,444 ED visits, and 5,714 disabilities. Transport incidents were the fourth leading cause of injury death in Canada (Table 1), and the second leading cause of injury hospitalizations (Table 2), ED visits and disabilities. Motor vehicle collisions were the top cause of transport injuries, resulting in more than 600 deaths (37 per cent of all transport-related deaths). For deaths, pedestrian and off-road incidents were second and third respectively. Off-road and cycling injuries ranked second and third for transport injury hospitalizations. Cycling injuries led to the second-most emergency department visits, with over 70,000 (Table 3).

Table 1. Leading Causes of Injury Deaths, All Ages, Both Sexes, Canada, 2018

Cause	**Number of Deaths**
Falls	5,249
Suicide/self-harm	3,809
Unintentional poisoning	3,477
Transport incidents	**1,759**

Table 2. Leading Causes of Injury Hospitalizations, All Ages, Both Sexes, Canada, 2018

Cause	**Number of Hospitalizations**
Falls	133,017
Transport incidents	**23,872**
Suicide/self-harm	16,419
Unintentional poisoning	10,772

Table 3. Cases by Transport Incident Type and Outcome, All Ages, Both Sexes, Canada, 2018

Transport incident type:	**Deaths**	**Hospitalizations**	**ED Visits**	**Disability**
Motor Vehicle	646	12,544	202,894	2,990
Pedestrian	314	2,888	20,040	694
ATV, snowmobile	133	3,901	32,424	719
Pedal Cycle	65	3,437	70,052	865
Other transport*	601	1,912	41,033	445

**Other transport includes railway, air and water transport, industrial vehicles and unknown*

Injuries by age group

Transport incidents disproportionately affect the youngest and oldest Canadians. Among children, transport incidents were the leading cause of injury death and the second leading cause of injury hospitalizations. For youth and young adults (15 to 24 years old), transport incidents were the third-leading cause of death considering all causes, not just injury, and the second leading cause of injury hospitalization. The highest rates of transport-related deaths and serious (hospitalized) injuries were among seniors aged 65-plus and youth and young adults. The rates of serious injury and death among seniors increased with age, the highest rates being in those aged 85 years and older.

The cost of transport injuries to the health system and society

In a single year, the total cost of transport incident injuries is $3.6 billion, accounting for 12 per cent of the total cost of injury in Canada. This places transport incidents as the second most expensive cause of injury in Canada after falls. 61 per cent of total cost of transport injuries was direct cost to the health-care system ($2.2 billion).

Across all ages, injuries and deaths from motor vehicle collisions were most costly at $1.9 billion, making up more than half the total cost of transport injuries (Table 4). They were followed by pedestrian, cycling and off-road vehicle injuries, costing $438 million, $377 million and $331 million respectively.

Table 4. Total Costs in Millions ($000,000s) by Type of Cost, Transport Incidents, All Ages, Both Sexes, Canada, 2018

Transport incident type:	Direct	Indirect	Total
Motor Vehicle	$1,332	$543	$1,875
Pedestrian	$254	$184	$438
Pedal Cycle	$281	$96	$377
ATV, Snowmobile	$196	$135	$331
Other transport*	$180	$417	$597
Total	$2,243	$1,374	$3,617

**Other transport includes railway, air and water transport, industrial vehicles and unknown*

A call to action

Transport-related injury is an unnecessary, costly issue in Canada, both in terms of the human and economic loss. The fact is, almost all these injuries and deaths, and the resulting costs, could have been prevented. We must take action to create a different story of a Canada free from serious injuries and deaths on our roads.

We call on road safety professionals to champion prevention through policies, spaces and practices that eliminate serious injuries and deaths. Investing in, implementing and measuring evidence-based and data-driven interventions, such as through Vision Zero, is critical. As Canada's leader of the Vision Zero movement, Parachute provides resources to help communities implement the Vision Zero approach. Most recently, Parachute has developed a customizable presentation template that champions can take to their local senior policymakers to move Vision Zero forward, whether the community is in the adoption or pre-adoption stage of implementation. The resource outlines Vision Zero and its importance, provides tools for implementation, and lays out the stages of becoming a successful Vision Zero jurisdiction. To download the tool, find "Making a Vision Zero Commitment in Canada presentation template" in the Resources section under Adopting Vision Zero at the following link: https://parachute.ca/en/professional-resource/vision-zero-collection/.

For more information, please visit the *Cost of Injury in Canada* report at www.parachute.ca/costofinjury and Parachute's Vision Zero collection for professionals at https://parachute.ca/en/professional-resource/vision-zero-collection/.

References

- Parachute (2021). *Potential lost, potential for change: The Cost of Injury in Canada.* https://parachute.ca/en/professional-resource/cost-of-injury-in-canada/

Send Us Your Article

Want to be a published author? Have a synopsis of your current work or recently completed project that could be included in the next issue of The Safety Network Newsletter? Articles on any aspect of road and motor vehicle safety are being requested for submission to the Editorial Board. Articles can be 300 to 1000 words plus accompanying photos and graphics.

Please send submissions to Samantha Piper, Chief Editor, piper@chilliwack.com.

Envoyez-nous votre article

Voulez-vous être un auteur publié? Faites figurer dans le prochain numéro de The Safety Network Newsletter un synopsis de votre travail actuel ou de votre projet récemment terminé. Des articles sur tous les aspects de la sécurité des routes et des véhicules à moteur sont demandés pour être soumis au comité de rédaction. Des articles doit être d'une lonueur de 300 à 1000 mots, plus les images et les graphiques qui l'accompangnent.

Veuillez envoyer vos soumissions à Samantha Piper, rédactrice en chef piper@chilliwack.com.

New Editors:

Chief Editor – Samantha Piper

Samantha has been with the City of Chilliwack for 27 years, most of those years as a Public Safety Specialist leading the Safer City Program. Samantha leads a team comprised of organizations that have a vested interest in road safety. Samantha's background in public relations, communications, public participation, and skills in relationship-building will support CARSP initiatives and energizes her passion for road safety.

Managing Editor – Peter Kehoe

Though relatively new to the traffic safety industry, Peter brings over 10 years of marketing, communications, and leadership experience to CARSP, specializing in digital project management and content strategy. Peter has managed multiple national-reaching websites in his career and possesses an applied knowledge of website optimization, social media marketing, event management, campaign automation, and omnichannel integration. He works as the Marketing Manager at ATS Traffic out of Edmonton.

Acknowledgements

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