ACKNOWLEDGEMENTS

We gratefully acknowledge the province-wide partnership between the Provincial Health Services Authority (PHSA), Evidence to Innovation Research Theme at the BC Children’s Hospital Research Institute, and the Department of Pediatrics, University of British Columbia (UBC) for their integral participation and contribution to the BC Injury Research and Prevention Unit (BCIRPU). Their ongoing involvement and support allows BCIRPU to continue to be a leader in the development of evidence-based prevention initiatives that build capacity in health authorities and that contributes to the improved health, well-being, and safety of British Columbians.
2018-2019 marked 20 years of the British Columbia Injury Research and Prevention Unit (BCIRPU) working to reduce disability and death from injuries in British Columbia (BC). Our efforts in supporting BC’s health authorities and the larger injury prevention community, providing data and surveillance services, undertaking research, influencing policy, and educating the public have continued since we opened our doors in 1998.

We held a two-day symposium in October 2018 where our colleagues, past and present, from all across BC, Canada, and the world came to help us celebrate 20 years of achievements. But our work is not over. We continue our work to develop the three provincial priorities—the prevention of seniors falls and injuries; transport-related injury; and youth suicide and self-harm—and ultimately, reduced injury, disability, and death.

This past year we realized a 4% increase in success in research grant competitions. These funds are being used to ensure that we continue to support our partners and the health authorities in their initiatives through the development and evaluation of innovative tools and techniques, and the provision of evidence and knowledge, that reduces the burden of injury in BC.

Two of our programs celebrated milestones in 2018-2019. We recognized ten years of our partnership with The Community Against Preventable Injuries, and our work to change the public belief that “accidents just happen.” The delivery of the Period of PURPLE Crying® program in British Columbia marked ten years of educating parents and caregivers about infant crying. An evaluation of the program revealed a 35% reduction in the number of children under two years of age admitted to hospital with abusive head trauma. These programs are a testament to the Unit’s focus on partnerships and public messaging.

We continue to make inroads in the area of public awareness and education of injury prevention, promoting risky and outdoor play among children through the media. We enhanced data access through our Injury Data Online Tool (iDOT) through the creation of factsheets, infographics, and new data visualization tools. Our Concussion Awareness Training Tool (CATT) was recognized by the federal government as a valuable resource as part of their Concussion Harmonization Project, and we continue the update and refresh of each of the CATT e-learning toolkits. Finally, we continue to increase our presence on social media and sharing injury prevention messages with the public.

A sincere thank you to our staff members and collaborators from the health authorities, government, BC Injury Prevention Committee, BC Injury Prevention Alliance, and research community for their support and continued collaboration. We would like to thank the Provincial Health Services Authority and the BC Centre for Disease Control for their generous funding to BCIRPU—their ongoing guidance and support is invaluable. We want to extend considerable gratitude to Dr. Allison Eddy and the Department of Pediatrics, University of British Columbia, and to Dr. Wyeth Wasserman and the BC Children's Hospital Research Institute for providing the environment and ongoing resources that support our research efforts. Finally, we thank the injury prevention communities, research institutes, and NGOs for their collaboration and continuous support as key partners in building capacity to better address injury prevention in BC and beyond.

Dr. Ian Pike, Director
Dr. Shelina Babul, Associate Director
MESSAGE FROM THE PROVINCIAL HEALTH SERVICES AUTHORITY (PHSA)

Ms. Noorjean Hassam

Congratulations to the BC Injury Research and Prevention Unit (BCIRPU) for marking 20 years of injury prevention surveillance, research leadership and collaboration, and education in British Columbia (BC). Your support has helped the BC government, Provincial Health Services Authority (PHSA) and the BC Centre for Disease Control (BCCDC), and regional health authorities to advance the injury prevention agenda.

BCIRPU continued to support the development of research, recommendations, and workplans supporting the three provincial injury prevention priorities, in collaboration with Megan Oakey, Provincial Manager for Injury and Falls Prevention. Work continued on laying the groundwork for an injury surveillance data management framework developed in partnership with the BC Observatory for Population and Public Health and Trauma Services BC. At the time of writing, BCIRPU is concluding work on establishing injury prevention indicators for each of the priority areas. We look forward to the results of these efforts.

This annual report represents outstanding achievements in injury surveillance, research, knowledge translation, and public information by the BCIRPU throughout the 2018-2019 year. BCCDC is pleased to be a partner with BCIRPU in our collective mission to reduce the societal and economic burden of injury in BC, and we look forward to continued collaboration for action on injury prevention in the years ahead.

Sincerely,

Noorjean Hassam, MHA
Chief Operating Officer & Chief Professional Practice Officer
BC Centre for Disease Control
Provincial Health Services Authority

Noorjean Hassam, MHA
Chief Operating Officer & Chief Professional Practice Officer
BC Centre for Disease Control
Provincial Health Services Authority
Our Vision
To be a leader in the production and transfer of injury prevention knowledge and the integration of evidence-based injury prevention practices in the daily lives of those at risk, those who care for them, and those with a mandate for public health and safety in British Columbia.

Our Mission
To reduce the societal and economic burden of injury among all age groups in British Columbia through research, surveillance, education and knowledge transfer, public information and the support of evidence-based, effective prevention measures.

Background
BCIRPU is located at BC Children’s Hospital and is a core research program within the Evidence to Innovation theme at the BC Children’s Hospital Research Institute. To reduce the social and economic burden of injury in BC, the Unit was established as a strategic entity, supporting the development of policies and programs through research, surveillance, and the translation of evidence and knowledge to researchers, policy makers, practitioners, and the public. BCIRPU leaders are members of the faculty at the University of British Columbia, and train and mentor future health care professionals, researchers, policy makers, and injury prevention practitioners.

Our Role
To serve as a provincial “hub” to provide research-based leadership and coordination to stakeholders in order to reduce the societal and economic burden of injury among all age groups in British Columbia.

Key objectives include:
- Reducing the social and economic burden of injury in BC
- Leading research and knowledge development
- Improving surveillance
- Guiding evidence-based prevention
- Supporting professionals and practitioners
- Providing awareness, education, and public information

Strategic Pillars
- Surveillance
- Research
- Knowledge Synthesis and Translation
- Public Information

Funding & Support
BCIRPU operates as a province-wide partnership between the BC Centre for Disease Control at Provincial Health Services Authority (PHSA), Evidence to Innovation Research theme at BC Children’s Hospital Research Institute, and the Department of Pediatrics, University of British Columbia. BCIRPU is supported by core funding from PHSA, and competes for peer-reviewed research grants and contracts.
STRATEGIC AREAS OF FOCUS

Surveillance
Understanding trends and patterns is an important first step in reducing the burden of injury. Injury surveillance is the ongoing collection, analysis, interpretation, and timely dissemination of injury data. Government, health authorities, and other stakeholders require data to inform their decisions to develop and implement effective injury prevention initiatives. The BCIRPU maintains a comprehensive, up-to-date, and standardized surveillance system through its Injury Data Online Tool (iDOT) to support these efforts.

Research
High-quality research is crucial for the development of evidence-based injury prevention policy and programming. With expertise in injury prevention, epidemiology, health promotion and education, psychology, kinesiology, preventive medicine, and public health, BCIRPU provides applied injury research and knowledge development leadership and support to government, health authorities, PHSA Population & Public Health, researchers, and other stakeholders. Our collaborations with provincial, national, and international researchers and stakeholders support injury prevention research across age groups, mechanisms of injury, socioeconomic status, and among Indigenous communities.

Knowledge Synthesis & Translation
BCIRPU monitors the best injury research and prevention practices in BC, Canada, and around the world. The Unit completes in-depth analyses of current interventions in order to identify those with proven success. This knowledge is compiled and communicated to government, health authorities, PHSA, and other stakeholders. Examples include research evidence reviews, evaluations, syntheses of injury indicators—both general and specific to the provincial injury prevention priorities—and health authority-specific reports.

Public Information
Improving knowledge and changing attitudes and behaviours can lead to the reduction of disability and death from preventable injuries. BCIRPU currently utilizes traditional digital tools and media to convey injury prevention information to the general public. This is achieved through the Unit’s strategic alliance with The Community Against Preventable Injuries in the delivery of a province-wide injury prevention social marketing program, as well as core programs including the Concussion Awareness Training Tool, Prevent Shaken Baby Syndrome BC, and Finding Balance BC.
ONWARD AND UPWARD: 20 YEARS OF BCIRPU

In October 2018, BCIRPU celebrated its 20th anniversary with a research symposium.

The BC Injury Research and Prevention Unit (BCIRPU) opened its doors in 1998. For the past 20 years, BCIRPU has made considerable contributions to reducing incidences of preventable injuries in children and adults.

We want to thank all of our partners and collaborators over the years, including the BC Children’s Hospital Research Institute, BC Ministry of Health, Provincial Health Services Authority and the University of British Columbia.

On October 9 and 10, 2018, we hosted a symposium to highlight the last 20 years and our plans for the future of injury prevention in British Columbia. 20/20 Hindsight and Vision: Focusing on Injury and Violence Prevention in the Future featured TEDx-style presentations from top researchers and influencers in injury prevention, highlighting key provincial activities and emerging research.

“British Columbians are more aware than ever before of their risks for injury,” said BCIRPU Director Dr. Ian Pike. “However, BCIRPU still has work to do as long as people keep getting hurt. We plan to build on the foundation of the last 20 years and continue with our many partners to make a difference.”
BCIRPU Director Dr. Ian Pike welcomes attendees to the celebration.

Colleagues and BCIRPU staff, past and present, attended our birthday party.  
Top: L to R: Phoebe Lu, Mhairi Nolan, Maureen Nolan, Atousa Zargaran—Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) staff.  
Middle: Jennifer Smith (BCIRPU), Len Garis (City of Surrey Fire Department), Kate Turcotte and Alex Zheng (BCIRPU).  
Bottom: Meghan Winters (SFU), Alison Macpherson (York University), Emilie Beaulieu (BCIRPU).
Ian Pike and Shelina Babul with Shanthi Ameratunga, the event’s keynote speaker and injury prevention expert from the University of Auckland.

Top to bottom:
Megan Oakey (BCIRPU/BCCDC) and Murray Fyfe (Island Health) discuss the provincial injury prevention priorities.
Kelsey Louie (First Nations Health Authority (FNHA)), Tara Nault (ISPARC–Indigenous Sport, Physical Activity & Recreation Council), and Evan Adams (FNHA).
L to R: Michael Schwandt (BCCDC), Tobin Copley (Fraser Health), Amy DaCosta (formerly Northern Health).
The Prevent Shaken Baby Syndrome BC (PSBSBC) Program and BCIRPU’s partnership with The Community Against Preventable Injuries (Preventable) both celebrated ten years.

Clockwise, from top left: Left to right: Danielle Vazquez (National Center on Shaken Baby Syndrome), Fahra Rajabali (BCIRPU), Brian Lopez (National Center), Karen Sadler (BCIRPU), and Ryan Steinbeigle (National Center); Ryan Steinbeigle presents on ten years of the Period of PURPLE Crying® program in British Columbia; the Preventable display table with awards and photos of past campaigns; and the Preventable team: Kevin Lafreniere, Ian Pike, Samantha Bruin, and Jennifer Smith.
TOP STORIES OF 2018-2019
Here’s what we were talking about this past year.

First Vision Zero Summit in BC (p. 15)
The first-ever Vision Zero Summit in BC took place on February 8 and 9. This sold-out event was hosted by the City of Surrey, and showcased the announcement of Surrey’s Vision Zero Plan.

Over 100 road safety experts, municipal government staff, civic leaders, researchers, and public health professionals attended in person and many more joined via livestream across BC.

SHRed Concussions Study (p. 24)
Funding was announced for a pan-Canadian study on concussion surveillance funded by the National Football League (NFL). Drs. Ian Pike and Shelina Babul are the lead investigators for BC for Surveillance in High Schools to Reduce Concussions and Consequences of Concussions in Canadian Youth (SHRed Concussions). SHRed Concussions will provide a national platform for concussion surveillance in high schools and study the consequence of sport-related concussions in youth.

New federal concussion strategy (p. 29)
The Concussion Awareness Training Tool (CATT) was recognized as an established and respected concussion resource by the Concussion Harmonization Project funded by the federal government. This recognition led to the redevelopment of the e-learning course for medical professionals in 2018 in partnership with Parachute and the Public Health Agency of Canada. The Concussion Harmonization Project is also funding the provision of the updated courses for coaches, school professionals, and parents and caregivers in French, as well as the French translation for the new course for working adults and their employers.

Program associated with reduction in abusive head trauma cases (p. 33)
A study published in the journal *Child Abuse and Neglect* has shown that delivery of the Period of PURPLE Crying® Program was associated with a 35% reduction in shaken baby syndrome cases in BC—fewer babies are suffering life-changing and life-threatening injuries.
BCIRPU had 80 stories in the media in 2018-2019. Here are some highlights from the past year.

**Risky and Outdoor Play**

Dr. Brussoni was featured in a CBC documentary *The Nature of Things* on the benefits of outdoor play, hosted by David Suzuki. In addition to speaking to local, national, and international news outlets about outdoor and risky play, she was interviewed by *Fortune* magazine about the dangers of *Tide pods* in February.

**Concussions and Sport Injuries**

In May 2018, Dr. Babul was interviewed by local media for the launch of Active & Safe Central. She served as a spokesperson for Safe Kids Week in June, speaking about CATT and the need for proper recognition and management of concussion.

**Hot Topics in Injury Prevention**

Dr. Pike conducted interviews on a variety of topics. In July, he spoke to multiple news outlets, including *CBC Early Edition*, on how parents can avoid dehydration and heat exhaustion.

The Period of PURPLE Crying® Program and its impact in British Columbia was featured in the news after the publication of a paper in *Child Abuse & Neglect*.

As part of their role as spokespersons for The Community Against Preventable Injuries, Dr. Pike and Ms. Jennifer Smith conducted interviews on pedestrian safety, drinking and driving, seniors’ falls, and drowning. In September, Dr. Pike participated in ICBC’s media event on the dangers of distracted driving.
A Provincial Hub

BCIRPU serves as a hub, providing leadership and coordination for injury prevention initiatives throughout BC. The Unit is directly aligned to support the needs of the BC Ministry of Health Service Plan, the BC Guiding Framework for Public Health, the Provincial Injury Prevention priorities, as well as the needs of the Regional Health Authorities, First Nations Health Authority, BCCDC, and other stakeholders. BCIRPU provides ongoing support to the health authorities, BC Injury Prevention Committee (BCIPC), and members of the BC Injury Prevention Alliance (BCIPA). This support enables cost-effective, evidence-based, and targeted injury prevention policies, strategies, and interventions.

Provincial Injury Prevention Priorities

Together with the BC Injury Prevention Committee (BCIPC) and Ms. Megan Oakey (Provincial Manager for Injury and Falls Prevention and Acting Senior Director, Health Promotion, Chronic Disease and Injury Prevention at PHSA/BCCDC), the BCIRPU established three provincial priorities for injury prevention in 2017-2018. In 2018-2019, we continued our work on these priorities—seniors’ falls and injury prevention; transport-related injury prevention; and the prevention of youth suicide and self-harm.

Seniors’ Fall Prevention

A Falls Risk Assessment and Management General Practice Guideline for BC physicians, nurse practitioners, and medical students was proposed to the Ministry of Health in August 2018. The proposal, developed by a working group of members from the BCIPC and led by the BCIRPU, was approved by the Guidelines and Protocols Advisory Committee (GPAC). A Memorandum of Understanding was signed by both parties to support and structure the development of the guideline going forward. Members of GPAC, the BCIPC, and the BCIRPU formed a working group and the initial draft was developed in January 2019.

Ms. Megan Oakey and Ms. Denise Beaton continued to co-chair the BC Falls and Injury Prevention Community of Practice (CoP). The CoP fosters collaboration, reduces the duplication of efforts, and works toward the standardization of provincial fall prevention resources. Membership consists of fall prevention leads from all seven health authorities.

BCIRPU members presented their work in seniors’ fall prevention at various conferences, including the 4th Canadian Fall Prevention Conference in St. John’s, Newfoundland (June 2018), the Public Health Association of BC conference in Vancouver, BC (November 2018), and the 13th World Conference on Injury
Prevention and Safety Promotion in Bangkok, Thailand (November 2018).

BC Seniors’ Fall Prevention Awareness Week took place in November. See page 33 for more information about this annual campaign.

Road Safety

BC’s first ever Vision Zero Summit on municipal road safety took place on February 8 and 9, 2019. The event sold out (100+ attendees), with many others attending via livestream.

In 2018, working group members of the BCIPC partnered with the City of Surrey to hold a Vision Zero Summit for municipalities. The goal of the Summit was for participants to obtain a clear understanding of: what Vision Zero means and its role as a road safety philosophy, the process of developing a Vision Zero road safety plan using the Safe Systems Approach, and the importance of collaboration and partnerships across sectors in building Vision Zero. The Summit also provided a venue for the City of Surrey to declare their goal of Vision Zero for the city.

The Summit featured international and local speakers, included both urban and rural perspectives, and announced new Vision Zero grants by both Vancouver Coastal Health and Fraser Health Authorities. An evaluation survey was conducted, and results were presented at a webinar in March. Results showed that participants understood that no loss of life or serious injury is acceptable on our roads; success requires a multi-sectoral approach, including engineering, planning, health, community, and enforcement; speed is a paramount factor in injury severity; and that data should be used for decision-making with a particular consideration to equity.

Youth Suicide and Self-Harm

BCIPC members formed a working group in the fall of 2018 to develop public health recommendations for the third provincial injury prevention priority, youth suicide and self-harm. Ms. Denise Beaton, BCIRPU/BCCDC, and Mr. Bryan Melnyk, Ministry of Health, conducted a literature review and environmental scan, and presented their findings in a discussion paper at the BCIPC meeting in January 2019.

Based on the research evidence and review of the data, the BCIPC decided to inclusively define youth as ages 0–24. Next steps include involving external experts in the development of the recommendations.

Partnership with the First Nations Health Authority (FNHA)

In July 2018, Ms. Megan Oakey and Dr. Murray Fyfe, co-chairs of the BCIPC, as well as Ms. Denise Beaton, were invited by the FNHA to attend their monthly standing meeting. This hour-long meeting includes discussions of injury prevention priorities and potential for collaboration across the work of the BCIPC, BCIRPU, and FNHA.

Injury Indicator Workshop

On February 22, BCIRPU co-hosted a half-day Injury Indicator workshop with FNHA, providing the opportunity for knowledge exchange and skill development. The workshop explored the basics of injury prevention, defining injury surveillance (and its relationship to prevention), as well as exploring available sources of injury data, injury in the provincial context, and thoughts regarding potential First Nations-specific indicators. The session reviewed BCIRPU’s work with respect to First Nations issues, as well as the FNHA’s perspective on injury.
Child Death Review Unit

The Child Death Review Unit (CDRU) of the BC Coroners Service reviews the deaths of all children age 18 and under in BC. The purpose of these reviews is to better understand how and why children die, and to use those findings to prevent other deaths and improve the health, safety, and well-being of all BC children.

Through the review of all child deaths, the CDRU gathers data that can show trends in child deaths. In some cases, deaths will be further reviewed by way of an aggregate review or through the multidisciplinary review process. Information arising from these various reviews is analyzed and shared with agencies and organizations to influence and develop programs to deter or prevent child deaths. By understanding the risks, we can be guided in determining the most significant opportunities for prevention.

In 2018-2019, Dr. Ian Pike represented the BCIRPU as a member of the multidisciplinary CDRU in the development of the following reviews and reports:

- Supporting Youth and Health Professionals: A Report on Youth Suicides
- Child Mortality in British Columbia

By understanding the risks, we can be guided in determining the most significant opportunities for prevention.
Map of Services

BCIRPU plays a central role in coordinating communication between injury prevention leads in BC, facilitating opportunities for networking. BCIRPU provides substantial support to the work of the BC Injury Prevention Committee (BCIPC) and is represented on the Health Authority Injury Prevention Working Group.

Following the selection of the provincial injury prevention priorities in 2017, BCIRPU has supported the:

- Development of the 3-year BCIPC work plan.
- Completion of the falls prevention intervention evidence review.
- Development of the *BC Seniors Falls and Injury Prevention Recommendations for Action*.
- Development of the provincial falls prevention work plan.
- Development of the provincial road safety work plan.
- Completion of the injury indicator survey to develop injury indicators for BC.
- Investigation into trampoline park injuries.
- Literature review and environmental scan to support the development of youth suicide and self-harm recommendations.
- Development of a successful proposal for, and subsequent drafting of, a falls risk assessment and management general practice guideline for BC physicians, nurse practitioners, and medical students.
- Providing planning support for the Vision Zero Summit on road safety and conducting the summit evaluation.

See page 18 for a more detailed look at the services BCIRPU provides each health authority.

BCIRPU assists BC’s health authorities and other stakeholders with:

- Injury prevention program planning, development, implementation, and evaluation
- Coordination and facilitation of injury surveillance
- Identification of key trends, issues, and evidence-based best practices
- Expert training in injury and falls prevention
- Research design, methods, and analysis
- Research literature searches and synthesis
- Grant application development

BCIRPU plays a central role in coordinating communication between injury prevention leads in BC, facilitating opportunities for networking.
During the 2018-2019 operating period, BCIRPU provided the following support services to BC Health Authorities:

- **Northern Health**
  - Ongoing support for falls, general injury prevention, and data requests.

- **Vancouver Coastal Health**
  - Ongoing support to the Program Lead for Injury Prevention with Trauma Services.
  - Ongoing support for falls, general injury prevention, and data requests.
  - Reviewed submissions to the VCH Trauma Services Action Mini-grants.
  - Partnered with VCH to support the promotion of concussion awareness in schools, including providing:
    - Public Health Nurse train-the-trainer courses for CATT for school professionals in Vancouver, Powell River, and Richmond.
    - Professional development: concussion training sessions at the 2019 Richmond School District Conference.
  - Professional development: concussion training sessions at two Vancouver schools.
  - Tracking of school professionals completing the CATT e-learning course.

- **Island Health**
  - Ongoing support for falls, general injury prevention, and data requests.
  - Worked on gaining access to the Trauma Datacube and the CDI Data Mart in partnership with the observatory epidemiologist from Island Health.
  - Worked on defining injury hospitalizations from the Discharge Abstract Database, in collaboration with the observatory epidemiologist from Island Health.

- **Fraser Health**
  - Ongoing support for falls, general injury prevention, and data requests.
  - Regular participation in the Unintentional Injury Prevention Priority Action Committee.
  - Provided support to MPH students during educational placements.

- **Interior Health**
  - Ongoing support for falls, general injury prevention, and data requests.
Other Injury Prevention Resources

BC Casebook for Injury Prevention (released 2015)

This visual resource was created for government decision makers and leaders in government to assist the Health Authorities and other injury stakeholders with decision-making, priority setting, planning processes, and resource allocation for Injury Prevention in Public Health in BC. Supporting resources include:

- Casebook Infographic
- Casebook Video
- Casebook PowerPoint Presentation

View the Casebook on the BCIRPU website.

Economic Burden of Injury in BC (released 2015)

This was created as a companion piece to the Casebook, and provides a breakdown of the causes of injury, rates, and costs within each BC health authority, thereby showing where injury prevention efforts in each health authority could have the greatest return on investment. Supporting resources include:

- Economic Burden Executive Summary
- Economic Burden Infographic

View the Report on the BCIRPU website.

BC Injury Online Directory (released 2017)

This directory lists injury prevention stakeholders in BC with the goal of facilitating networking and collaboration among practitioners, policy-makers, researchers, service providers, and community members.

Access the Directory on the BCIRPU website.

The Canadian Atlas of Child and Youth Injury Prevention

Highlighting the work of the CIHR Team in Child and Youth Injury Prevention, the Atlas platform was created to bring injury data and information together, allowing injury professionals, practitioners, and policy makers to make informed and timely decisions to improve child and youth injury prevention in Canada. The Potential Years of Life Lost (PYLL) visualization illustrates the loss due to child and youth deaths between 2006 and 2011 in Canada.

Access the tool at injuryevidence.ca.
SURVEILLANCE
Understanding injury trends and patterns

Improving Injury Surveillance

BCIRPU’s surveillance system currently includes data on injury hospitalizations including sports-related injuries (2001/02-2016/17), deaths (2001-2015), road crash information (TAS data) (deaths: 2001-2015; injuries: 2001-2007), ED visits to BC Children’s Hospital (CHIRPP data) (2007-2014), and work-related injury claims (WorkSafe) (2001-2016). New databases are incorporated as they become available and new data sharing agreements are secured, with ongoing cleaning and maintenance as required.

Youth treated for alcohol-related injuries often reported the help of strangers in seeking medical care while a higher number of patients treated for cannabis-related injuries had sought medical attention themselves.

Injury Data Tools

Ongoing efforts include:

- Operating the BC Injury Reporting System, providing injury statistics and information to the BC Ministry of Health, PHSA/BCCDC, members of the BC Injury Prevention Committee, members of the BC Injury Prevention Alliance, and the health authorities.
- Conducting ongoing collection, analysis, interpretation, and dissemination of high-quality injury statistics and information related to emerging trends, identified gaps in evidence, best practices, and best buys.
- Maintaining data sharing agreements with various agencies and organizations, to ensure a comprehensive view of injury in BC.
- Managing the interactive Injury Data Online Tool (iDOT©), a direct interface with the surveillance data for users to produce customized tables, charts, and maps.

Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP)

BCIRPU operates the BC component of the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP)—an injury surveillance system funded by the Public Health Agency of Canada and in use in 11 pediatric and 8 general hospitals across Canada. The program continues to amass extensive data and information on child and youth injury, which is used to inform injury prevention policy and programs.

Cannabis and Alcohol Study

The objective of this study was to retrospectively report all cases involving adolescents under the age of 17 years that were treated in the emergency department of BC Children’s Hospital for cannabis and/or alcohol-related injuries.
between January 1, 2016 and December 31, 2018. These efforts culminated in the production of a report describing the high proportion of substance use in a social gathering and injuries occurring in private residences. In addition, those treated for alcohol-related injuries often reported the help of strangers in seeking medical care while a higher number of patients treated for cannabis-related injuries had sought medical attention themselves.

The next phase of the project involves real-time data collection of cannabis-related injuries to evaluate whether current government interventions are effective in protecting Canadians against the adverse effects of cannabis use. This includes whether the legislation and protocol implemented are effective at keeping cannabis out the hands of the children and youth. This project is currently underway to document the landscape of cannabis-related injuries in adolescents one-year post-legalization.

This study is a part of a larger project to examine the characteristics of all hospital visits relating to cannabis and/or alcohol use pre- and post-legalization of recreational cannabis.

**Injury Data Online Tool (iDOT)**

Available via the BCIRPU website, the Injury Data Online Tool (iDOT) provides up-to-date surveillance data and information. Users select from multiple pull-down menus to choose parameters and create a customized view of the injury mortality and injury hospitalization data according to their needs. Numbers, rates, and age-adjusted rates can be presented. Longitudinal and cross-sectional comparative data are available and can be further broken down by multiple specific parameters such as age, sex, region, and injury type. The iDOT also provides information on the number of hospital stays and the costs related to hospital treatment. Included in the iDOT are road safety data from the Traffic Accident Statistics (TAS) database provided by the Insurance Corporation of BC (ICBC); the inclusion of sports-related data using the Discharge Abstract Database, CHIRPP BC Emergency Department data, and work-related injury death and injury claims from WorkSafeBC. Data have been updated to the most recent years available. According to Google Analytics for 2018-2019, there were 2,632 pageviews for the iDOT.

Visit our website to access the iDOT.
Injury Data Visualizations

The injury data visualizations, uploaded in 2018-2019, provide an overview of trends and patterns to gain insight into injury mortality and hospitalizations in BC. The visualizations are a supplement to the iDOT, allowing end users a quick glance at a visual summary of injuries in BC. Visualizations are available for data on hospitalizations, mortality, road-traffic related deaths, and BC Children’s Hospital Emergency Department visits. Access the data visualizations on our website.
BCIRPU contributes to the injury prevention evidence base by pursuing research opportunities through peer-reviewed grants and contracts. Projects aligning with the Unit’s core deliverables are undertaken with provincial, national, and international research partners, collaborators, and other stakeholders.

### Recreational Boating Safety (funded by Transport Canada)

BCIRPU received funding from Transport Canada to address recreational boating safety over three years. The project launched in spring 2017 and is being conducted in partnership with The Community Against Preventable Injuries (Preventable), the Lifesaving Society and Royal Canadian Marine Search and Rescue (RCMSAR).

The purpose of the project is to develop, deliver, and evaluate a social marketing campaign to recreational boaters in BC that will raise awareness, transform attitudes, and ultimately change behaviours and reduce boating injuries. In the first year of the project, an epidemiological report of recreational boating deaths and injuries was produced to guide creative development of the campaign materials in preparation for the launch of the campaign in Year 2. The report described fatalities, hospitalizations, and emergency department visits related to recreational boating injuries, as well as the applicable legislation, a review of the relevant peer-reviewed literature and previous safe boating campaigns in Canada. The key risk factors identified were alcohol consumption and lifejacket wear. The highest number of injuries occurred among adult males, in powerboats, and on lakes and oceans.

As previous Preventable boating campaigns have addressed the two key risk factors, development of an entirely new creative campaign platform was not needed. Instead, a robust communications plan and messaging around safety preparedness was developed. A baseline survey, measuring boaters’ awareness, attitudes, and behaviours related to preventable injuries was conducted in the spring of 2018. The campaign launched in summer 2018, with messaging appearing in marinas throughout the province and supported by a robust digital strategy and on-water engagement activity by RCMSAR volunteers. The campaign in summer 2019 will shift to mass media, with a 15-second TV ad flighted in the days leading up to each of the four long weekends throughout the summer.
Surveillance in High School to Reduce Concussions and Consequences of Concussions in Canadian Youth (funded by National Football League)

The SHRed Concussions program will provide a national platform for concussion surveillance in high schools that will have a significant impact in reducing the risk of sport-related concussions and their consequences in youth. The project is led by Dr. Carolyn Emery, University of Calgary, and involves investigators from nine Canadian universities, including UBC.

As part of the three-year program, investigators will evaluate 6,000 high school sport participants between the ages of 13 and 15 in 60 schools across five provinces. Funding will assist in establishing and validating injury surveillance in high schools, integrating a variety of tools to detect concussion, predict recovery, and inform best practice and policy in the prevention and management of concussions in a variety of youth sports, including ice hockey, rugby, football, lacrosse, wrestling, soccer, basketball, volleyball, and cheerleading.

Funding for this project, from the National Football League, was announced in November 2018. For more information, read the UBC media release.

VOICES of Children and Youth in Injury Prevention (funded by Canadian Institutes of Health Research)

Thanks to the First Nations Health Authority and Indigenous communities of British Columbia, BCIRPU is pleased to announce that the VOICES of Children and Youth project will be expanding to BC.

The Hupačasath First Nations community will be engaging approximately ten of their youth members in the project. The youth will be asked to take photographs and provide narratives of places in their community that they believe are ‘safe’ and ‘unsafe’, from an injury perspective. Ms. Carolina Tatoosh will serve as the community lead, working with Drs. Emilie Beaulieu (BCIRPU), Ian Pike (BCIRPU), and Alison Macpherson (York University). The project is scheduled to run for six months until June 2019, and will culminate in a presentation by the youth to Hupačasath community leadership.

VOICES is a research initiative currently taking place in the Mohawk community of Akwesasne, located in an area that straddles Ontario, Quebec, and New York along the St. Lawrence River. Drs. Pike, Beaulieu, and Macpherson are project leads, and Dr. Rose Alma-McDonald is the community lead. These researchers are collaborating with the community of Akwesasne to help to identify safe and unsafe spaces.
In November 2018, a reporter from the Ottawa Citizen spent the afternoon with the children and youth of Akwesasne as they participated in a photo-mapping project of their community. Students took photos of safe and unsafe spaces to learn about safety, storytelling, and their community. The children will present these photos to the Akwesasne Mohawk Council as a way of asking them to make their community a safer place to live and play.

VOICES is funded by the Canadian Institutes of Health Research (CIHR) and is in partnership with the Akwesasne Mohawk Board of Education, Hupačasath First Nation, University of British Columbia, York University, and Katenies Research and Management Services.

Fire and Firefighter Safety

City of Surrey Commissioned Reports

BCIRPU received funding from the City of Surrey, in collaboration with the University of Fraser Valley and the Surrey Fire Service, to investigate and report on the benefits of anti-idling technology in fire engines, and electrical fires in residential homes.

The first report, titled Anti-Idling Technology on Fire Service Vehicles: An Evaluation of the Benefits, supported the continued usage of anti-idling technology on fire engines. Anti-idling technology helped reduce greenhouse gas emissions as well as a reduction in costs. However, the cost reduction was mainly due to extending the service life of the vehicle as a result of less engine use, whereas savings in terms of fuel and maintenance costs were minimal.

The second report, titled The Influence of Electrical Fires in Residential Homes: Geospatial Analysis Pointing to Vulnerable Locations and Equipment Failures, examined the prevalence and burden of electrical fires in residential homes. Risk of electrical fire was found to be highest in areas of the home that were least accessed, such as basements, garages, and laundry rooms. The leading causes of electrical fire were permanent wiring, extension cords, and appliance cords. The report recommended priority areas for electrical safety inspectors to focus on during inspections.

Residential Fire Safety

As a continuation of the previous funded work with the National Fire Information Database, BCIRPU researchers have submitted two manuscripts relating to residential fires and fire-related injuries for publication.

One manuscript explores the geographic and demographic distribution of fires and fire-related injuries. Over 145,000 incidents of residential fires from the provinces of British Columbia, Alberta, Manitoba, and Ontario were analyzed spanning from 2005 to 2015. Both fire incident and casualty rates were found to have decreased over this timespan, but the risk of a casualty event once a fire
Research

Research does occur has not changed. Injury rates were also found to be significantly higher for males than females across all age groups.

The second manuscript investigates the association between neighbourhood socioeconomic factors and rate of residential fires and fire-related injuries. This study provides evidence that neighbourhoods with higher education, higher unemployment rates, and smaller household size are more at risk for fire-related injuries. In addition, children are particularly vulnerable to these neighbourhood factors.

Opioid Overdose Study

The Provincial Health Officer declared a public health emergency in BC in 2016 in response to the rapid increase in illicit drug overdose deaths in the province. Fraser Health, in particular, had the largest number of overdose deaths, the majority of which occurred among men in private residences. In-depth chart reviews of 90 men of working age who used illicit drugs in private residences revealed that a significant proportion were employed in the building trades industry, indicating a possible link between injury, pain management, and eventual illicit drug overdose.

BCIRPU received funding from the City of Surrey, in collaboration with Fraser Health, to investigate and better understand the pathway from injury to opioid prescription to problematic use, overdose, and overdose death, in order to identify potential strategies for early intervention.

Examining Cancer and Injury Among Female Firefighters

Female firefighters, either born female or now self-identifying as female, from the United States, Canada, United Kingdom, France, Australia, and elsewhere are being sought to participate in an online survey. The purpose of this study is to describe the incidence and circumstances of cancer and work-related injury among female firefighters.

Although studies have highlighted the elevated cancer and injury rates among male firefighters, few contain sufficient numbers of women to draw any substantial conclusions. This information is important for making the workplace safer for, and more supportive of, females in the fire service by: developing and evaluating health and wellness policies; designating resources; and designing screening, surveillance, and prevention strategies. This study is being conducted by Dr. Ian Pike, Chief Len Garis with the City of Surrey Fire Department, and Dr. Kenneth Kunz, a medical oncologist.

Economic Burden of Injury

BCIRPU published a journal article that calculated the cost of treating injuries in BC, the impact of years of life lost to death or disability, and the economic loss of diminished labour market productivity and earnings. These findings are needed to raise awareness about the burden of injury, to provide physicians with comprehensive information for discussions with patients, and to BCIRPU's work with the National Fire Information Database provided evidence that neighbourhoods with higher education, higher unemployment rates, and smaller household size are more at risk for fire-related injuries.
assist policymakers in the development and implementation of broader injury prevention initiatives.

Read the article in the *BCMJ*.

**Injury Mortality and Inequities**

BCIRPU published two journal articles in 2018-19 related to injury inequities across various factors: *Area-based socioeconomic disparities in mortality due to unintentional injury and youth suicide in British Columbia, 2009–2013 (Health Promotion)* and *The association of material deprivation component measures with injury hospital separations in British Columbia, Canada (Injury Epidemiology)*.

**Injury Prevention, Outdoor and Risky Play**

**Go Play Outside! (funded by the Lawson Foundation)**

Since its launch, *Go Play Outside!*, a digital risk reframing tool for parents, has reached over 25,000 users with nearly 122,000 pageviews. This is largely due to Dr. Mariana Brussoni’s continuous effort in promoting the values and benefits of outdoor risky play for children.

To test the tool’s effectiveness, the study team used a randomized controlled trial (RCT)—where participants were randomly assigned to one of three conditions (i.e., control; digital tool; in-person workshop). Participants were then asked to complete a series of surveys at three time points—at the time of the initial participation, post 1-week and then 3-months—to record their attitudes and behavioural change towards children’s risky play. The RCT of the study was completed in September 2018.

Data from 446 mothers of children between 6 and 12 years of age residing in the Metro Vancouver were considered in the analyses.

Results indicated that mothers in the digital tool condition reported significantly higher increases in their tolerance for risk in play, and were significantly more likely to accomplish their goals than mothers in the control condition 1 week after using the tool. These differences were no longer significant 3 months after using the tool. Interestingly, mothers in the in-person workshop condition were not significantly different from the control group with respect to change in tolerance for risk in play or goal attainment.

The attempt to explain the null finding for the in-person workshop condition through qualitative analyses was not fruitful. However, a plausible reason might be that in-person workshop participation demanded significantly more time commitment than the other conditions, which consequently required a higher motivation...
level. Those who ended up completing the in-person workshop condition might have already been fully aware of the benefits of children’s outdoor play—which inadvertently left limited room for improvement.

Nonetheless, these findings provide confidence in encouraging use and broad dissemination of the digital tool. Given the ease of distribution and low resource requirement of the digital tool, it is encouraging that this was an effective model and can provide the basis for further iterations and versions.

Access the tool at outsideplay.ca.

**Playability (funded by CIHR)**

This mixed-method study aims to better understand which physical and socioecological factors influence children’s outdoor play. Dr. Brussoni team’s ultimate goal is to develop a Playability Index (similar to a Walkability Index) that will be useful for designing urban environments to meet children’s needs and positively influence their development and well-being.

Between April 2016 and June 2018, 105 families in three neighbourhoods (Grandview-Woodland, Lower and Central Lonsdale, and Steveston) in Metro Vancouver participated in the study. Various data were collected, including seven days worth of children’s GPS and accelerometry data, qualitative interviews, neighbourhood photos and map drawings, daily diaries, and demographic and other surveys.

All of the datasets collected from 105 children 10 to 13 years of age and their 127 parents have been cleaned and processed for analyses. A series of qualitative analyses were conducted on children’s interviews to extract facilitating and inhibiting factors in the context of children’s unsupervised outdoor play. This thematic analysis yielded 20 indicators under 3 main themes:

1. People around (social environments);
2. Busy roads (physical environment safety), and
3. Things to do (affordances).

Dr. Brussoni’s team is working to find the best way to validate and operationalize these indicators with quantifiable data and GIS layers. Concurrently, parent interviews are being analysed to garner their unique perspectives on children’s outdoor play. In addition to a methods paper published in 2018, multiple papers derived from this study are under review for publication.
KNOCKLEDGE SYNTHESIS, TRANSLATION, AND PUBLIC EDUCATION

Improving injury awareness and knowledge

Changing Policy, Practice, Attitudes, and Behaviours

BCIRPU gathers and synthesizes research evidence, and develops communications strategies to reach government, health authorities, health practitioners, policy makers, researchers, other stakeholders, and the public. This includes briefing notes, technical reports, letters of support, meetings, workshops, seminars, conferences, peer-reviewed publications, and traditional and digital tools, and media.

All of these products contribute to changes in injury prevention, policy, practice, attitudes, and behaviours.

New videos for Active & Safe Central

Following the launch of Active & Safe Central in May 2018, an online tool containing evidence-based injury prevention information for over 50 sports and recreational activities, BCIRPU produced a series of short, informative videos.

The four videos cover the following topics: physical literacy across the lifespan; training load; neuromuscular training exercises; and sleep, vigilance, and sport injury prevention. They provide additional injury prevention information for athletes/participants, parents, coaches, teachers, club administrators, and health care professionals.

View the videos at activsafe.ca.

Concussion Awareness Training Tool

The Concussion Awareness Training Tool (CATT, cattonline.com) is an online resource providing e-learning training in the recognition, response, treatment, and management of concussion. This evidence-based resource, created by Dr. Shelina Babul, is tailored for medical professionals, coaches, parents and caregivers, school professionals, and players and participants.

There were 52,637 visits to cattonline.com in 2018-19, totalling 185,783 pageviews.

E-Learning Module Updates

The new CATT course for Workers and Workplaces is in production, expected to launch Summer 2019. This initiative followed a detailed developmental plan which included an international environmental scan, a literature review, and interviews and focus groups with over 45 individuals from a variety of industries. Knowledge translation activities for CATT for Workers and Workplaces included a panel presentation and exhibit booth at the Actsafe Event Safety Conference in March 2019.
KNOWLEDGE SYNTHESIS, TRANSLATION, AND PUBLIC EDUCATION

Other updates to the CATT e-learning courses included the redevelopment of the course for Medical Professionals, now available in both English and French as part of the national Concussion Harmonization Project, and the course for Coaches, also available in English and French. Tailored concussion information packages for all audiences were developed and added to the CATT resources section. An update of CATT for School Professionals is currently in progress, for a Fall 2019 release.

New Collaborations in Concussion Awareness

In 2018, a prolific stunt performer and health and safety performer advocate at The Union of British Columbia Performers, an autonomous branch of the Alliance of Canadian Cinema, Television and Radio Artists, approached Dr. Babul and Mr. Philippe Saucier of SportMedBC about the need to improve concussion care among employees of this sector. Dr. Babul is helping to develop a concussion guideline and industry-specific protocol for the BC Motion Picture, Television, Live Event and Performing Arts industries.

CATT partnered with both the Vancouver Coastal Health Authority and with the Richmond School District for the 2018-2019 school year to develop and support active dissemination of concussion awareness resources. The report for the Richmond School District pilot study will be available in June 2019.

CATT in East Africa

BCIRPU/CATT and the Uganda Ministry of Education and Sports and Ministry of Health, along with several sports federations, created a new partnership to bring concussion training to East Africa in 2019.

The objectives of this pilot study were to educate health professionals, coaches, sport managers, teachers and school administrators in Uganda on standardizing the recognition and management of concussion in sports; and to evaluate the effectiveness of the e-learning CATT concussion educational sessions. This study will identify facilitators and barriers to concussion training in this low-resourced population, and inform the potential to expand training to neighbouring vulnerable populations/low-income countries such as Kenya and Tanzania.

Dr. Babul travelled to Uganda in February 2019 to lay the groundwork for this project. In Summer 2019, in-person training sessions on concussion and CATT will be held for Ugandan health professionals, coaches and managers from the Federation of Uganda Football Association, Federation of Uganda Basketball Association, and the Rugby Association.
Preventable’s “Pavement Patty” reminded drivers to slow down in school zones in September 2018.
The Community Against Preventable Injuries (Preventable)

Preventable is a province-wide, multi-partner social marketing organization designed to raise awareness, transform attitudes, and ultimately change behaviours. Its goal is to significantly reduce the number and severity of preventable injuries in BC.

BCIRPU is a founding strategic partner of Preventable, and provides the evidence, the research and the evaluation behind its injury prevention social marketing campaign. Dr. Ian Pike serves as the spokesperson for Preventable and Dr. Shelina Babul, Dr. Mariana Brussoni, and Ms. Jennifer Smith have served as expert spokespersons on specific injury issues such as concussion, play-related injuries, and boating safety.

Campaign Updates

Preventable filmed a new set of scenarios as part of a campaign platform refresh in June 2018. The new segments address falls, distracted driving, poisoning, texting and walking, electrical safety in the home, cycling helmet wear and boating safety. The tagline, “It’s time we get serious about preventable injuries” follows a slightly humorous depiction of everyday risk scenarios.

Preventable also delivered four campaigns in partnership with the BC Liquor Distribution Branch (BCLDB) to address alcohol consumption and serious injuries. Each month-long campaign was delivered in BCLDB stores and on social media. During the summer, Preventable partnered with Canadian Red Cross to air drowning prevention Public Service Announcements in Punjabi, Mandarin and Cantonese, featuring local TV personalities.

Pavement Patty

In Fall 2018, Preventable brought back “Pavement Patty,” a 3D illusion of a girl chasing a ball into the street. Preventable partnered with BCAA to remind drivers to slow down and remind parents to take extra care, adhere to the speed limit, and reduce distractions. “Pavement Patty” was installed in front of two schools: one in Burnaby and the other in Kelowna.

The illusion made its debut in 2010 and was the first of its kind in Canada. At the time, “Pavement Patty” was highly successful in generating conversation in the community, the local media, and worldwide. In 2018, “Patty” was featured in 102 articles locally and internationally.

International Recognition

Preventable was recognized at the International Safety Media Awards (ISMAs) in early November 2018.

Held at the 13th World Conference on Injury Prevention and Safety Promotion, Preventable received awards in the following categories: Gold in Audio; Silver in Media Evaluation; Honourable Mentions for both Ultra-Short Video and Print; and qualified as a Finalist for Overall Campaign.

The ISMAs recognize high-quality safety media from around the world. This year, over 400 submissions from 42 countries were considered for their production quality, message clarity, innovation/creativity, and evaluation methods and outcomes by a panel of 11 international injury prevention and media specialists. Preventable presented their work alongside other leaders in safety media.
Changing the Discourse

In February 2018, Preventable launched their “Changing the Discourse” campaign, which aims to shift the language we use when talking about injuries so that our attitudes towards injuries shift as well. Preventable sent campaign packages to over 300 media outlets, first responders, and road safety advocates to remind British Columbians that the words we use to describe injuries can affect how we perceive the choices that lead to potential injuries. The campaign received positive feedback, and Dr. Ian Pike engaged local media outlets in a conversation about preventable injuries. Read more about the campaign in this Globe & Mail story on the issue.

Prevent Shaken Baby Syndrome BC – The Period of PURPLE Crying® Program

The Period of PURPLE Crying® (PURPLE) program has been implemented in British Columbia as a universal provincial education program since 2009. Every family receives crying and shaking education from a maternity nurse, along with a supplementary software application and booklet resource package prior to discharge from the hospital. Reinforcement of the program is provided by a public health nurse within 48-hours to one-week of being at home from the hospital. Parents and the general public are also exposed to the PURPLE program via a public education campaign called CLICK for Babies (purple caps collected province wide and distributed to newborns in the winter).

The aim of the program is two-fold:

1. To support caregivers in their understanding of early increased infant crying; and

2. To reduce the incidence of shaken baby syndrome (SBS) in BC.

The PURPLE program has been institutionalized in all 50 birthing hospitals, 138 public health units, several midwifery clinics, and various provincial community agencies including pregnancy outreach, infant development, Aboriginal support, foster parent support, and adoption groups. The majority of materials are in English in a booklet/App format.

Free online training is available for the following groups: maternity/public health/primary care nurses, adoptive and foster parents, childcare and child service providers.

Since the Period of PURPLE Crying program commenced in 2009, there has been a cumulative 35% decrease of SBS cases in children under 24 months of age in BC. Findings were published in the journal Child Abuse & Neglect in the summer of 2018, and a media release resulted in five stories, including with CBC News and Fairchild TV.

Learn more at dontshake.ca.

PURPLE Crying Program Updates*

- 2018 marked the 10th Anniversary of the Period of PURPLE Crying program in British Columbia.
- Since the redesign of the PURPLE mobile application in September 2018, there was a 75% increase in application code activation by parents.
- More than 9,500 purple newborn caps were donated and distributed.

*As of March 31, 2019
KNOWLEDGE SYNTHESIS, TRANSLATION, AND PUBLIC EDUCATION

BCIRPU Webinar Series

During the 2018–2019 operating period, BCIRPU continued to deliver an informative webinar series. Six seminars were provided by leading experts in the field, with a total of 250 participants.

Webinar topics:

1. May 17, 2018 | Dr. Tessa Clemens
   Recreational Boating and Small Craft Safety

2. July 19, 2018 | Dr. Liraz Fridman

3. October 25, 2018 | Dr. Sarah Richmond
   How Can We Support Best Practice? A Situational Assessment of Injury Prevention Practice in Public Health

4. November 21, 2018 | Dr. Teresa Liu-Ambrose
   Improving Cognitive Function to Reduce Falls

5. January 24, 2019 | Dr. Motao Zhu
   The epidemiology and control of cellphone use while driving

6. March 14, 2019 | Ms. Megan Oakey and Ms. Shabnem Afzal
   BC Vision Zero Summit Debrief

Webinar Participants: 250

Website Visits: 21,744

Education and Public Information

Social Media

BCIRPU continues to use social media to deliver injury prevention messages. Our Twitter and Facebook accounts are used to engage with the public in real-time, share messaging from PHSA, UBC, and BC Children’s Hospital Research Institute, and allow BCIRPU to stay up-to-date on the latest in injury prevention information from our stakeholders and collaborators across the globe. We also operate social media accounts for CATT and Finding Balance BC.

BCIRPU joins and amplifies injury prevention initiatives via social media, including Parachute’s National Injury Prevention Day on July 5. This annual recognition day was created to help build awareness of the devastating impact of injury.

Safe Kids Week 2018

In June, BCIRPU led the annual Safe Kids Week campaign in BC. The topic for 2018 was awareness of concussion at home, at play, and on the road. The Unit created and distributed social media messaging to the health authorities, and collaborated with the BC Children’s Hospital Research Institute on a media release.
KNOWLEDGE SYNTHESIS, TRANSLATION, AND PUBLIC EDUCATION

Seniors’ Fall Prevention Week

The Government of BC declared November 5-11, 2018 as BC Seniors’ Fall Prevention Awareness Week, and BCIRPU continued its annual campaign to raise awareness of the prevalence of seniors’ falls in BC and the steps older adults and their caregivers can take to prevent them. The multi-platform campaign, delivered through the Finding Balance BC website, saw great success in many areas, all strengthened through excellent engagement and participation from the health authorities.

This year, BCIRPU received funding from a Francophone Affairs Program grant to adapt the materials into French. Posters, social media posts, and website pages were translated and disseminated during the month of November and after Falls Week.

Campaign highlights include:

- Over 6,000 visits to findingbalancebc.ca;
- Over 3,600 posters were sent to more than 500 public health units and GP offices across BC;
- Facebook ads reached 104,531 people and generated 327,677 impressions;
- The Finding Balance BC Facebook page fan base grew to over 400;
- Organic social media posts shared by the community resulted in 305 visits to findingbalancebc.ca; and
- Facebook ads targeting seniors resulted in almost half of the link clicks (48.2%), 51.4% of the post comments, 41.1% of the post shares, and 53.1% of the post reactions.

BCIRPU Website Google Analytics

- 21,744 sessions
- 17,608 users
- 39,042 pageviews

Traffic Sources:
- Search engines/organic = 53.8%
- Direct traffic = 37.8.3%
- Referring sites = 6.8%
- Social media = 1.3%

Pages with the Highest Traffic:
- Education/CATT page (16.8% of pageviews)
- Homepage (13.8%)
- iDOT/Traffic Accident System Tool (3.6%)
- Quick Facts/Seniors Fall Prevention (3.1%)
- Quick Facts (2.7%)
- Quick Facts/Motor Vehicle-Related Injuries (2.6%)

Brain Waves

This year, BCIRPU was successful in educating over 200 elementary school children about brain and spinal cord injury through our Brain Waves program. Brain Waves is a fun and engaging half-day neuroscience presentation that teaches students in grades 4 to 6 about the brain and spinal cord. Thank you to our 14 trained volunteers, who brought the hands-on program—which includes activity booklets, helmet fitting tips, and Jello Brains—to the classroom.

If you would like to participate in Brainwaves, please email bcinjury1@cw.bc.ca.
**Injury Insights**

BCIRPU produces *Injury Insight*, a periodic injury prevention factsheet/newsletter focused on injury issues of interest in BC. Production of these knowledge translation products has supported a partnership with the Langara College Nursing Program.

View our *Injury Insights* on our website.

**World Conference on Injury Prevention**

BCIRPU had 18 accepted abstracts at the 13th World Conference on Injury Prevention and Safety Promotion in Bangkok, Thailand, which took place from November 5-7, 2018. The conference theme was “Advancing injury and violence prevention towards the [WHO’s] Sustainable Development Goals.”

**Education and Training**

**SPPH 555**

Drs. Mariana Brussoni, Shelina Babul, and Ian Pike teach a graduate course at UBC’s School of Population and Public Health, titled *Principles and Practices of Injury Prevention*.

The course has been designed to prepare students for the responsibilities they will acquire when entering an academic, research, or health care delivery work setting. Throughout the term, students learn from the practical experiences of the instructor, guest speakers, and fellow students. The course is based on the Canadian Injury Prevention Curriculum (CIPC), which is focused on injury prevention and control theory and practice.

SPPH 555 is a mixed-mode, or blended, course, where students work with instructors and fellow students both online and in face-to-face sessions in the classroom. The major course assignment provides students with the opportunity to apply concepts learned in class to a real-world situation.

**Canadian Injury Prevention Curriculum Course**

CIPC focuses on injury prevention, control theory, and practice. It is the first curriculum of its kind that is targeted to community-based public health and injury prevention practitioners, and is built on Canadian content and uses Canadian examples to illustrate injury prevention concepts. Delivered as a 2-day workshop on demand, this curriculum is geared towards researchers and injury prevention professionals who practice injury prevention in the community. BCIRPU also delivers a CIPC facilitator workshop for those who would like to lead their own CIPC workshop. No CIPC or CIPC facilitator workshops were delivered in 2018-19.
Cooperation and Collaboration

BCIRPU provides leadership and support to government, health authorities, and other stakeholders and their extensive networks and coalitions. Successful injury prevention activity in BC is dependent upon multi-sectoral and interdisciplinary collaborations. BCIRPU has established strong strategic relationships with many provincial, national, and international agencies and organizations. This enables the Unit to draw upon external expertise and resources to build capacity and better address injury prevention in BC.

Networks and Coalitions

In addition to participating in strategic provincial, national, and international networks, during the 2018-2019 operating period, BCIRPU directly supported:

- PHSA Leadership Council for Population and Public Health
- BC Injury Prevention Committee (BCIPC) — providing coordination and secretariat support.
- BC Injury Prevention Alliance (BCIPA) — providing coordination and secretariat support.
- BC Falls and Injury Prevention Community of Practice (BCFCP) — providing coordination and secretariat support.
- BC Falls and Injury Prevention Coalition — providing coordination and secretariat support.
- The Community Against Preventable Injuries — providing injury prevention research and evaluation expertise, leadership, and spokesperson support to the injury prevention social marketing campaign.
- BC Concussion Advisory Network — providing leadership, coordination, and secretariat support.
- Road Safety Data and Measurement Group — providing coordination and support.
- Parachute (the national NGO for injury prevention) — providing provincial leadership and coordination under the renewed memorandum of understanding.
- viaSport Safe Sport Advisory Group — providing leadership, coordination, advocacy, and communication.
- Child & Nature Alliance of Canada — providing leadership support.

We thank the injury prevention communities, research institutes, and NGOs for their collaboration and continuous support as key partners.

—Drs. Ian Pike & Shelina Babul
NETWORKS, COALITIONS, AND PARTNERS

Key Partnerships

In the 2018-2019 operating period, BCIRPU worked with the following key partners:

- BC Alliance for Healthy Living
- BC Ambulance Service
- BC Automobile Association (BCAA)
- BC Coroners Service
- BC Drug and Poison Information Centre
- BC Falls and Injury Prevention Community of Practice
- BC Hockey
- BC Injury Prevention Alliance
- BC Ministry of Health
- BC Ministry of Public Safety and Solicitor General
- BC Recreation and Parks Association
- BC Regional Health Authorities
- BC Concussion Advisory Network
- Brain Injury Association of Canada
- BrainTrust Canada
- Canadian Concussion Centre: Krembil Neuroscience Centre (Toronto Western Hospital)
- Canadian Red Cross
- Canadian Standards Association
- Child Health BC
- College of Health Sciences, Makerere University
- Doctors of BC
- Federation of Uganda Basketball Association
- Federation of Uganda Football Association
- First Nations and Inuit Health Branch
- First Nations Health Authority
- Fortius Sport & Health
- Health Canada Supporting Injury Networks & Coalitions
- Hockey Canada
- Holland Bloorview Kids Rehabilitation Hospital
- Injury Prevention Centre (University of Alberta)
- Insurance Corporation of British Columbia (ICBC)
- National Sports Council of Uganda
- Occupational Health and Safety Agency for Healthcare
- Parachute
- Provincial Health Services Authority
- Public Health Agency of Canada
- Public Health Ontario
- RCMP E-Division
- Richmond School District
- Road Safety BC
- Rugby Uganda
- Safe Communities
- Saskatchewan Government Insurance
- Sport Injury Research Prevention Centre (University of Calgary)
- SportMedBC
- The Community Against Preventable Injuries (Preventable)
- The Djavad Mowafaghian Centre for Brain Health
- Uganda International Olympic Committee
- Uganda Ministry of Education and Sport
- Uganda Ministry of Health
- University of British Columbia – Vancouver and Okanagan
- University of Calgary – Sport Injury Prevention Research Centre
- Vancouver General Hospital Trauma Services
- viaSport
- Winnipeg Pan-Am Concussion Clinic
- WorkSafeBC
- York University
REVENUES & EXPENDITURES

Sources of Revenue

66.5%
Research Grants & Contracts

23.7%
MoH/PHSA Core Funding

5.9%
Facilities/Operations and In-Kind Support

3.9%
BC Children’s Hospital Research Institute (BCCHR)

Sources of Expenditure

66.5%
Research Grants & Contracts

21.7%
MoH/PHSA Supported Salaries & Benefits

5.9%
Facilities/Operations and In-Kind Support

0.3%
Admin & Finance Services

1.7%
Operating Costs

3.9%
BCCHR-Supported Salaries & Benefits
AWARDS, GRANTS, PUBLICATIONS, & CONFERENCES

April 1, 2018–March 31, 2019

Research Awards & Grants


Oberle E, Alexander S, Brussoni M, Nykiforuk C, Smargiassi A, Torres JJM. Levelling the playing fields: Creating the conditions for outdoor free-play to emerge in cities. Canadian Institutes of Health Research. (2019-2020)


Journal Articles


Technical Reports


**Conference Proceedings**


Emery C, Palacios-Derflingher L, Eliason P, Black AM, Krolikowski M, Spencer N, Kozak S, Schneider KJ, Babul S, Mrazik M, Lebrun...


**Invited Presentations**

Babul S. Concussions: Where Are We Now? BC Children's Hospital Foundations Donors Event. BC Children's Hospital. Vancouver, BC. March 27, 2019.


Workshops


OTHER CONTRIBUTIONS

Dr. Ian Pike

• Board Member: The Community Against Preventable Injuries.
• Board Member: Parachute Canada.
• Chair: Expert Advisory (Scientific) Committee. Parachute Canada.
• Chair: Scientific and Knowledge Translation Advisory Board. Alberta Program in Youth Sport & Recreational Injury Prevention.
• Co-Executive Director: The Community Against Preventable Injuries.
• Director, BC Injury Research and Prevention Unit.
• Director, BC Shaken Baby Syndrome – Intentional Injury Prevention Program.
• Editorial Board Member: BMJ Injury Prevention.
• Media Spokesperson: The Community Against Preventable Injuries.
• Member: BC Concussion Advisory Network (BC CAN).
• Member: BC Health Surveillance Advisory Committee.
• Member: BC Injury Prevention Alliance.
• Member: BC Injury Prevention Committee.
• Member: BC Road Safety Strategy Steering Committee.
• Member: Canadian Agricultural Injury Reporting Expert Committee.
• Member: Canadian Collaborating Centres on Injury Prevention and Control.
• Member: Child Death Review Panel, BC Coroner’s Service.
• Member: Canadian Injury Prevention and Control Curriculum – Revisions Committee.
• Member: Executive Steering Committee, Road Safety BC Strategy.
• Member: Injury Free Coalition for Kids.
• Member: International Collaborative Effort on Injury Statistics (ICES).
• Member: Research Leadership Council, BC Children’s Hospital Research Institute.
• Member: Society for Advancement of Violence and Injury Research (SAVIR).
• Research Theme Lead: Evidence to Innovation (E2i). BC Children’s Hospital Research Institute.

Dr. Shelina Babul

• Associate Director: BC Injury Research and Prevention Unit.
• Chair: BC Concussion Advisory Network (BC CAN).
• Director: Canadian Hospitals Injury Reporting & Prevention Program (CHIRPP) at BC Children’s Hospital.
• Director: ThinkFirst BC.
• Media Spokesperson: The Community Against Preventable Injuries.
• Member: BC Hockey Safety and Risk Management Committee.
• Member: BC Injury Prevention Alliance.
• Member: BC Injury Prevention Committee.
• Member: Canadian Academy of Sport and Exercise Medicine.
• Member: Canadian Collaborating Centres on Injury Prevention and Control.
• Member: Canadian Standards Association, BC Advisory.
• Member: Canadian Traumatic Brain Injury Research Consortium.
• Member: Child Health BC Concussion Advisory Group.
• Member: Concussion Awareness Working Group (CAWG) for BC ministries of Education (MED), Health (MoH) and Tourism, Arts and Culture (MTAC) and responsible for Sport.
• Member: Fraser Health Concussion Resource Network.
• Member: Interdisciplinary Trauma Network of Canada.
• Member: Parachute National Concussion Expert Advisory Committee.
• Member: Provincial Health Services Authority, Centre for Population & Public Health Leadership Council.
• Member: viaSport Safe Sport Advisory Group.

Dr. Mariana Brussoni

• Board Member: Child & Nature Alliance of Canada.
• Editorial Board Member: Injury Epidemiology Journal.
• Member: BC Children's Hospital Foundation Child Health Integrative Partnerships (CHIPS) Subcommittee 4: Keep Kids and Families Healthy – Across BC and Globally.
• Member: Canadian Public Health Association.
• Member: Canadian Standards Association Subcommittee on Naturalized Playspaces.
• Member: Canadian Public Health Association Advisory Committee: Risk Mitigation Policy Toolkit.
• Member: CFRI/BCCHR Scholars of Excellence Advisory Group.
• Member: International Play Safety Network.
• Member: National Advisory Committee on Recess (Physical and Health Education Canada).
• Member: Outdoor Play Canada Steering Committee.
• Member: Public Health Association of BC.
• Member: UBC Department of Pediatrics Appointments, Reappointments, Promotion and Tenure Committee.
• Member: UBC Department of Pediatrics Merit Review Committee.
• Member: UBC SPPH Awards Committee.
• Member: UBC Experimental Medicine Program Executive Committee.
• Member: UBC Experimental Medicine BCCH Site Leader.
• Member: BCCH Partners in Care Team (Patient Experience Roadmap).
• Member Scholar: International Institute for Qualitative Methodology.
ORGANIZATIONAL STRUCTURE

BCIRPU MANAGEMENT TEAM

Dr. Allison Eddy
Head, Dept. of Pediatrics
UBC

Megan Oakey (until Aug 2018)
Noorjean Hassam (until Feb 2019)
Mandy Valentine
Director of Operations, BCCDC

Dr. Wyeth Wasserman
Executive Director
BCCHR

Dr. Ian Pike
Director
Theme Lead, E2i

Dr. Shelina Babul
Assoc. Dir./Sports Inj.
Specialist
Director, CHIRPP BC

Alex Zheng
Biostatistician

Denise Beaton
Project Coord.

Dian Leung
Research Asst.

Diana Samarakkody
Community Coord./Mobilizer

Fahra Rajabali
Researcher

Jennifer Smith
Research Coord.

Karen Sadler/
Claire Humphreys
Mgr., Prevent Shaken Baby Syndrome BC

Kate Turcotte
Researcher

Megan Oakey
Provincial Mgr, Injury Prevention

Samantha Bruin
Comms. Coord.

Dawn Mount
Managing Director, E2i

Mike Gottenbos
Finance Manager

Atousa Zargaran
CHIRPP Coord.

CHIRPP Staff Members:
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Mhairi Nolan
Jennifer Clado

Ian and Shelina’s Students:
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Amanat Purewal (Med Student)
Desiree Wilson (PhD student)
Emilie Beaulieu (Postdoc Fellow)
Frida Munday (Master’s student)
Gabrielle Hadly (Master’s student)
Jim Li (Medical FLEX student)
Kirian Mann (Medical FLEX student)
Moijgan Karbakhsh (Visiting Scholar)
Pardeep Sidhu (Postdoc Fellow)
Reed Huber (Medical FLEX student)

Undergraduate:
Aneel Dhingra (Summer student)
Joseph Janssen (Work Study student)
Kyle Scoten (Summer student)
Payman Toghian-Rizi (Summer student)
Phoebe Cheng (Work Study student)
Samantha Pawer (Summer student)
Stephanie da Silva (Nursing student)

Scott Ramsey (Master’s student)
Takuro Ishikawa (PhD student)

Mariana’s Students:
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Amalie Lambert (Master’s student)
Amy Schneeberg (PhD student)
Desiree Wilson (PhD student)
Janie Vaar (MSc student)
Michelle O’Kane (PhD student)
Morgan Yates (PhD student)
Negin Riazi (PhD student)
Takuro Ishikawa (PhD student)

Undergraduate:
Kathryn Soo (Work Study student)
D’Arcy Hutton (Work Study student)

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