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# Standing Committee on Health

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Chair: Mr. Sean Casey





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Thursday, October 3, 2024

• (1535)

[English]

**The Chair (Mr. Sean Casey (Charlottetown, Lib.)):** I call this meeting to order.

Welcome to meeting number 130 of the House of Commons Standing Committee on Health.

In accordance with our routine motion, I'm informing the committee that all remote participants have completed the required connection tests in advance of the meeting.

You have these cards on the table. Everyone who's here in person, please read the guidelines on those cards. These measures are in place to help prevent audio and feedback incidents and to protect the health and safety of all participants, including the interpreters.

Pursuant to an order of reference of June 12, 2024, the committee will start its study of Bill C-277, an act to establish a national strategy on brain injuries.

I'd like to welcome our panel of witnesses.

We have, appearing as an individual, Dr. Miriam Beauchamp, neuropsychologist and professor with the department of psychology at Université de Montréal. She's with us by video conference.

We have Elisabeth Pilon, peer support worker with Concussion Cafe Yukon, who is also appearing by video conference.

From the Concussion Legacy Foundation of Canada, we have Tim Fleiszer, executive director, who is here with us in the room.

From the Constable Gerald Breese Centre for Traumatic Life Losses, we have Janelle Breese Biagioni, clinical counsellor.

Thank you all for taking the time to appear today.

Colleagues, we're going to leave a few minutes at the end. We have a couple of study budgets to adopt, but otherwise we will proceed in the normal fashion, beginning with opening statements, followed by rounds of questions.

We're going to start with Dr. Beauchamp.

[Translation]

Welcome to the committee. You have the floor.

**Ms. Miriam Beauchamp (Neuropsychologist and Professor, Department of Psychology, Université de Montréal, As an Individual):** Thank you very much.

Good afternoon, everyone.

My name is Miriam Beauchamp. I'm a pediatric neuropsychologist, full professor in the department of psychology at the Université de Montréal, and director of the brain and child development axis at the Sainte-Justine hospital research centre in Montreal. I'm speaking here as an individual, as a researcher. I will make most of my presentation in French. Since I also work with members of several pan-Canadian groups that support Bill C-277, I will conclude briefly in English.

I am honoured to have the opportunity to present to you today. I speak to you as a researcher supported by the Canadian Institutes of Health Research, the Fonds de recherche du Québec and the Canada Foundation for Innovation. I also hold the Canada research chair in pediatric traumatic brain injury. Therefore, I would like to start by thanking Canadians for supporting my research.

My presentation today has two objectives. First, I want to support Bill C-277 for the well-being of people living with brain injury. Second, I want to demonstrate that the scientific ecosystem is key to achieving the objectives of the legislation, and thus to highlight the importance of increasing federal research funding.

For the past 15 years, I have been dedicated to advancing our knowledge on the prevention, diagnosis and treatment of brain injury in children from birth to age 18. In Canada, we do excellent research and are well recognized around the world, but our research is fragile. Conducting research is an iterative process that requires constant renewal of our projects and staying ahead of rapidly evolving technology. Undertaking high-quality research is therefore costly, and depends entirely on financial support from our government.

This funding is crucial in three regards. First, it is used to fund large-scale research projects that lead to concrete clinical action for people with brain injury. For example, in my group, we are following over 1,000 babies and preschoolers to understand the impact of brain injury on development. We have identified significant behavioural problems and are now testing family-based interventions to address them.

Second, the funding is important for having the best equipment and infrastructure and remaining competitive with other countries. For example, in my laboratory, we use mobile neuroimaging technology that enables us to obtain brain images on the field when youth sustain a blow to the head. We have also developed a virtual reality treatment to improve the mental health and social life of teenagers after a brain injury.

Finally, the funding is critical for supporting our teams, made up almost entirely of motivated, dedicated and passionate students and post-docs who devote up to 12 years of their lives to research, without pay. For example, in 15 years, I have supervised 48 students who depended entirely on government grants to pay their tuition, rent and groceries, so that they can concentrate fully on improving the future of Canadians with pediatric brain injuries.

Although progress has been made in recent years in the management of brain injuries, there is still much to learn about this complex, multi-faceted condition. Maintaining and increasing federal funding for research is essential to the full implementation of Bill C-277 and to saving the lives of Canadians with brain injuries.

Concrete recommendations include: direct investment in research funding that specifically targets brain injury across the lifespan, from birth to aging; implementation of the recommendations of the Report of the Advisory Panel on the Federal Research Support System; support for pan-Canadian collaborative initiatives, such as the Canadian Concussion Network and the Canadian Traumatic Brain Injury Research Consortium, which enable us to pool our expertise and develop a concerted strategy.

• (1540)

[English]

In summary, I recommend that the committee not overlook the importance of research in the proposed national brain injury strategy, Bill C-277, and ensure that federal funding is increased to guarantee the sustainability of all research groups that ensure the survival and well-being of Canadians with brain injury.

Thank you.

[Translation]

**The Chair:** Thank you, Ms. Beauchamp.

[English]

Next, from Concussion Cafe Yukon, we have Elisabeth Pilon.

Welcome to the committee. You have the floor.

**Ms. Elisabeth Pilon (Peer Support Worker, Concussion Cafe Yukon):** Thank you.

Honourable members and guests, I am here today both as a person living with long-term impacts of brain injury and as an advocate for my community as a peer support worker for people living with brain injury. Thank you for having me as a part of this important conversation.

I sustained my injury by simply falling on the ice. I was 29 and working in a promising career. Eight years later, I am just one year into secure and meaningful work that sustains me financially for the first time since my injury. It has taken me this long to heal enough,

learn how to manage my symptoms, tend to the intense struggles with mental health and nervous system dysregulation, and find balance with my well-being and capacity.

I have had a lot of help from different practitioners, whom I mostly sought out myself. I learned how to build the support team around me and become my own expert, in a way, out of necessity, which I have learned is a very common experience. To do so with compromised cognitive, emotional, and physical capacity is almost impossible to explain. At times, I was unable to walk more than a few steps without falling over, to make sense of how to cook myself a meal, or to string words together in a meaningful way. I didn't understand what was happening to me, and I needed supports that I didn't have. I tried to learn about concussions by trying to make sense of what I could find on the Internet, which can be a really dangerous and unreliable source without proper guidance.

It is also impossible to explain the loneliness and isolation that come from this experience. As I shared in my brief, if I hadn't had the financial, emotional and practical support of my family and close friends, I would have very likely ended up homeless and/or would have succumbed to my suicidal thoughts as a way of escaping the pain, as many, many do—all of this from an injury classified as a mild traumatic brain injury. As Dr. Charles Tator has said, "There is nothing 'mild' about concussions".

Four years after my head injury, I started Concussion Cafe Yukon, a peer support group in Whitehorse. People with injuries of all kinds attend, from stroke to electrical injury, concussions, and survivors of severe traumatic brain injury. Four years later, I am being compensated to continue this work due to the high need. It is the only brain injury-specific community support in Yukon.

The gaps in our brain injury support systems are so vast they are difficult to cover, but I'll name a few.

Currently, there is no category of support for adults with acquired brain injury within disability services, whether you had support prior to becoming an adult or not.

Many people are encouraged to drive themselves home from the hospital—if they can get there—with very little information on what to expect and how to take care of themselves, and often with inadequate follow-up. Many have to travel south for proper care and rehabilitation like I did, which is stressful and challenging at the best of times, and it can provide added complexity and slow recovery.

Most of us pay for our care out of pocket, which can be an intense burden. Women experiencing intimate partner violence can face further barriers to leaving dangerous situations and to recovery, given the particular challenges of brain injury. Many members of our community struggle with daily tasks, like food preparation, transportation, and executive functioning skills without access to support workers, which is taxing both on the survivors and on their loved ones.

The parents with brain injury in our community face immense pressures and challenges that impact the whole family system. Some members of our Concussion Cafe Yukon community are homeless. Brain Injury Canada shares that at least 50% of people who are homeless have had a brain injury. Every member of our brain injury community faces mental health challenges, as well as the caregivers, who report feeling taxed, undersupported and alone.

We don't have any statistics on how many Yukoners are injured each year or how many live with the long-term impacts of head injury. I do know that most people I speak to have a personal story to share.

As shared in a paper by Lasry and colleagues in the National Library of Medicine, we know that the occurrence of brain injuries is higher and outcomes are worse in remote communities. They are also disproportionately higher in first nations populations, meaning that remote Yukon communities are in significant need of supports and care. We also know, through Government of Yukon statistics according to per capita sales, that alcohol consumption in Yukon is the highest in the country. Substance use, struggles in mental health, isolation and brain injury are all correlated.

It is impossible to understand the need without necessary data, or for frontline workers to provide brain injury-informed care at hospitals, in mental health settings or in substance use spaces without more resources, education and supports.

Thanks to the dedication of family members, survivors and brain injury professionals across the country, we now have a Canadian charter of rights for people with brain injury to reference. It is deeply impacting for me to have this on my wall for those I serve in the community as a guide for a standard we are orienting towards and to remind people that they matter, despite what is being reflected back to them through our health care system.

However, identifying an ideal is not enough. We need to take collaborative action across the country in order to make change in how we respond to and provide care for brain injury in Canada.

• (1545)

Thank you.

**The Chair:** Thank you, Ms. Pilon.

Next, on behalf of Concussion Legacy Foundation Canada, we have Tim Fleiszer, executive director.

Welcome to the committee, sir. You have the floor.

**Mr. Tim Fleiszer (Executive Director, Concussion Legacy Foundation Canada):** Good afternoon.

My name is Tim Fleiszer. I'm a retired athlete who played professional football in the Canadian Football League for 10 seasons. I al-

so played soccer, hockey and rugby in my youth. My three young boys play soccer and hockey.

Today, I'm here as the founder and executive director of Concussion Legacy Foundation Canada.

[*Translation*]

Along with our sister organizations in the U.S., the U.K. and Australia, we are the leading global charity dedicated to brain injury for youth, military personnel, veterans and athletes.

[*English*]

As a football player at Harvard and during my time in the CFL, I witnessed many of my teammates suffer multiple brain injuries. Tragically, this has led to several of them struggling with severe mental health issues. Some have even taken their own lives. Far too many of these athletes were diagnosed with chronic traumatic encephalopathy, or CTE, after they passed.

CTE is the only neurodegenerative disease that is completely preventable. Our mission at the Concussion Legacy Foundation is to eliminate CTE by preventing repeated hits to the head, whether on the job, in combat or while playing the sports we love. Prevention and education are at the heart of what we do, and we are committed to raising awareness around this issue every single day.

• (1550)

[*Translation*]

I will devote the rest of my remarks to the subject at hand today, Bill C-277.

[*English*]

The CLFC supports Bill C-277 in its current form as a first step to significantly reduce incidents of concussion and related brain injuries in Canada. This legislation has the potential to protect young athletes, promote safer sports environments and contribute to the long-term health and well-being of future generations.

[*Translation*]

This includes improving return-to-play guidelines and raising awareness among coaches, educators, clinicians and all Canadians.

[English]

We believe in this initiative because we want to see our kids participate in sports without the risk of severe, life-altering brain injuries. We want to help our Canadian Armed Forces servicewomen and servicemen, who put their lives on the line to protect ours, return home to their loved ones with the health and dignity they deserve. We want to ensure that those suffering the effects from multiple head impacts have access to the best possible treatments.

CLFC is proud to partner with research groups such as the brain health imaging centre at CAMH. Dr. Neil Vasdev and his team are performing cutting-edge, “first in human” trials to diagnose CTE in living patients. I was honoured to be the very first scan for this groundbreaking study. Our partners at the Canadian Concussion Centre are performing autopsies to determine the prevalence of CTE in Canadians. This research contributes to our global brain bank, alongside that of experts in Boston, Oxford, Auckland, São Paulo and Sydney.

CTE is preventable. With the right strategies in place, we can ensure that our children, athletes and military personnel avoid the devastating consequences of repeated brain injuries.

Mr. Chair and all members of the House, I would be remiss if I didn't take a moment to thank you for your unanimous support of this critical bill. Like all of you, CLFC strongly supports Bill C-277, a pivotal piece of legislation that has the potential to enhance concussion safety through the implementation of a national strategy for brain injury prevention.

Following the swift passage of this bill, CLFC offers the following recommendations to the Minister of Health for inclusion in a national strategy to support and improve brain injury awareness, prevention and treatment.

One, implement age-specific regulations to prevent brain injuries in youth sports.

Two, mandate brain injury education and awareness.

Three, establish an advisory panel on neurodegenerative brain injury treatment and prevention.

Four, monitor and evaluate policies using evidence-based methods.

Five, implement the recommendations from this committee's 2019 report, “Tackling the Problem Head-on: Sports-Related Concussions in Canada”.

We can make this national strategy a reality and have Canada lead the world in preventing, studying and treating brain injuries.

Thank you.

**The Chair:** Thank you, Mr. Fleiszer.

Finally, on behalf of the Constable Gerald Breese Centre for Traumatic Life Losses, we have Janelle Breese Biagioni, clinical counsellor.

Welcome to the committee, Ms. Breese Biagioni. The floor is yours.

**Ms. Janelle Breese Biagioni (Clinical Counsellor, Constable Gerald Breese Centre for Traumatic Life Losses):** Thank you.

Honourable members and guests, I am here today to speak not only as the CEO and founder of the Constable Gerald Breese Centre for Traumatic Life Losses or as a clinical counsellor, but first and foremost as a family member who has personally lived with the devastating impact of brain injury.

In 1990, my husband, Constable Gerald Breese, sustained a severe traumatic brain injury in a police motorcycle accident while on duty with the RCMP. This left him with significant personality changes and an inability to manage his emotions. His battle, like so many others, was not just against the injury but also against a health care system that was ill-prepared to support him or our young family.

The hospital couldn't manage his care or his behaviour and, after three weeks, with no rehab facility available, I took him home. I left my job, cared for our daughters and became his primary caregiver. The overwhelming shift in roles and responsibilities took a severe toll on all of us, especially him, and five months later, he tragically died of a catastrophic heart attack brought on by the intense and relentless stress of his recovery.

Sadly, our story is not unique. Thirty-four years later, families across Canada continue to face the same struggles. Brain injury survivors, if they get to the hospital, are often discharged with little to no follow-up care, leaving families to navigate an overwhelming, fragmented system while facing mental health challenges and increased risks of addiction, homelessness and criminality.

Today research shows that brain injuries affect more than just young men or athletes. Hundreds of thousands of women suffer brain injuries from intimate partner violence. Many Canadian veterans may be underdiagnosed, while indigenous people experience a disproportionate impact from brain injury, often facing unique challenges in accessing care and support. Seniors and children are also affected. Brain injury does not discriminate; it impacts people of all ages, backgrounds and communities. It can happen to anyone, anywhere, any time.

While our health care system has made progress in saving lives, we have not done enough to address the lifelong impact of brain injury or to ensure quality of life for survivors. They lose their sense of self, their connection to family and community, and their chance at a meaningful recovery. If we continue to fail them, we will continue to see rising rates of mental health crises, substance abuse, homelessness and criminal justice involvement. Brain injury not only lives in the forefront of these crises; it also lingers in the aftermath. The cost of inaction far outweighs the investment in proper care.

Two years ago, I was widowed for the second time. During my second husband's seven-week battle with cancer, I saw first-hand what a well-structured, coordinated care model could look like. We didn't have to seek out help, because every professional and resource was deployed to us through a cancer care model. This is the kind of model we need for brain injury survivors, but to achieve it, we need a framework.

Our organization recently released the Canadian charter of rights for people with brain injury. It recognizes their right to appropriate, dignified care and assistance in navigating the health care system, but a charter alone is not enough. It must be supported by a national strategy.

When we know that the incidence and prevalence of brain injury in Canada surpasses the number of cases of spinal cord injuries, HIV-AIDS, multiple sclerosis and breast cancer combined, it is perplexing that despite these crushing figures, brain injury remains the orphan of our health care system, left far behind while other conditions receive more attention and resources.

This strategy is the north star we have longed for. It will shine a light on what is working as much as it will shine a light on what is not working. It will provide the road map we need to coordinate care, train health care providers and ensure that services are accessible in every jurisdiction. We can learn from one another, problem-solve together and ultimately improve outcomes for individuals and strengthen the families and communities impacted in Canada.

We cannot afford to wait any longer. Brain injury is not an individual crisis; it is a national one.

I personally want to thank my MP, Alistair MacGregor, for standing shoulder to shoulder with me since 2018 to bring this forward today. This is a historic moment for the brain injury community.

Thank you.

• (1555)

**The Chair:** Thank you very much, Ms. Breese Biagioni.

We're going to begin now with rounds of questions, starting with the Conservatives.

Dr. Ellis, you have six minutes.

**Mr. Stephen Ellis (Cumberland—Colchester, CPC):** Thank you very much, Chair.

Thank you to all the witnesses for being here. I think, as Ms. Breese Biagioni said, it's a historic moment, so hopefully we can make the best of it.

[*Translation*]

Ms. Beauchamp, can you tell Canadians what the most common issues are among young people with a brain injury?

**Ms. Miriam Beauchamp:** Yes, of course.

That depends a bit on the individual's age. Between birth and the age of 18, there are a number of changes.

My colleagues have talked about adults and aging. There are problems in every sphere of the individual's functioning. These can include: cognitive problems, such as language problems, memory or attention problems; physical problems, such as coordination, motor skills or balance problems; or emotional or psychological problems, such as mental health problems, anxiety, depression or stress, for example. We're talking about a decline in quality of life. We can't always predict which sphere will be affected after an injury. That's the complexity of a craniocerebral trauma or a brain injury. We need a number of resources and a wealth of knowledge to properly take care of people who have suffered injuries, since they may have dysfunctions or deficiencies in a number of areas in terms of daily functioning.

• (1600)

[*English*]

**Mr. Stephen Ellis:** Thanks very much, Doctor.

Maybe I'll turn to you now, Mr. Fleiszer. You obviously have experienced this first-hand, as has one of our other witnesses, Ms. Pilon.

I think one of the things I'm really struggling with to try to help Canadians is how to help parents to be better able to identify kids who have had a brain injury. Other than witnessing the injury itself, as we just heard, the symptoms are so complex that maybe it's difficult for parents to actually realize what's happening.

What advice would you give, as someone who has suffered a brain injury, to say, watch out for this, or this is something that's common or serious or indicative of a brain injury? Feel free to expand on that if you would, sir.

**Mr. Tim Fleiszer:** I think the best way to address that would be to actually try to prevent those injuries before they happen.

We have a program that is very deliberately and provocatively titled "Stop Hitting Kids in the Head". We know that children's brains are developing up until the age of 12, 13, 14, and having those children heading soccer balls, getting tackled in football and rugby, and getting body-checked in hockey is a terrible idea. That's the first thing we can do.

The second thing is creating awareness programs. We talked about mandatory education, whether it's parents, teachers or classmates themselves. I think of the story of Rowan Stringer, who suffered a bad concussion, didn't tell her parents, didn't tell her teachers, but had told her friends. Asking somebody who's neurologically impaired to self-report is, again, a terrible strategy. We really have to teach this bystander model of teaching others what to look for and what to recognize.

The first thing that should happen when somebody has a big fall, whether that be on the sports field, in the playground or just a garden variety accident, is thinking about the possibility of brain injury and looking for that behaviour change.

**Mr. Stephen Ellis:** Thanks very much for that.

I have a follow-up question, if I might.

I can remember being a physician on the sidelines of my kids' rugby games. At one point, there was a really interesting tool for your phone. There were concussion guidelines that you go through. Obviously, there are multiple ways to help bystanders recognize concussions.

Are there any apps or things that you're aware of or that you guys are working on that are going to help that recognition? As you said, recognizing it, understanding it's part of the sport, is most important. What advice do you have for folks on the sidelines?

**Mr. Tim Fleiszer:** I think relying on people's judgment rather than relying on technology, in terms of trying to best diagnose these injuries, is the best way. One of the issues with technology is that there is a barrier for people who either can't afford it or can't access it.

From a technology standpoint, though, I do think there is a role for that in terms of treatment, so that is something that we have invested in.

**Mr. Stephen Ellis:** Thanks very much for that.

Ms. Pilon, you mentioned during your testimony that you had a traumatic brain injury. When we're looking at that, what specific supports would you have recommended be available to help you, first in your diagnosis and then in your recovery?

**Ms. Elisabeth Pilon:** I imagine that moment at the hospital and I imagine being told that if you've seen one brain injury, you've seen one brain injury and that everyone can be different. It's really just about bringing curiosity and awareness, and maybe having a pamphlet handed to me with what to expect for mental health, sleep disruption or changes I could track, perhaps with a questionnaire like the Rivermead post-concussion questionnaire, where I could track my symptoms, which I only found four weeks later. I imagine something like that right at the initial moment.

Encouraging me to call someone to support me would be a thing. I think about.... Was it Tim with the Concussion Legacy Foundation? Sorry, I forget his name. He was talking about how—

• (1605)

**The Chair:** Ms. Pilon, we're going to let you off the hook there. We're past time.

**Ms. Elisabeth Pilon:** Oh, okay.

**The Chair:** We're going to stay in the Yukon; next up is Dr. Hanley for six minutes.

**Mr. Brendan Hanley (Yukon, Lib.):** Thank you very much.

Don't worry, Ms. Pilon. I'll give you some more airtime.

First of all, I want to thank all of the witnesses for their participation today and for their ongoing advocacy. I also salute Mr. MacGregor for his perseverance in bringing this bill through.

Ms. Pilon, greetings to a fellow Yukoner. Thanks to technology and the House of Commons' support, we're a few kilometres away from each other, but we can both participate in this important meeting in Ottawa. I want to thank you first for your courage in sharing your experience and for demonstrating such leadership on brain injuries even as you progress on your own journey.

I have many questions, but I want to start with Concussion Cafe. I have this image based on your written brief where you describe yourself at some moments lying down with your eyes closed and leading the group. That's an incredible image and also a testament to your own perseverance in this.

Can you describe the Concussion Cafe? Who comes to the Concussion Cafe? Obviously, I'm not asking about individuals, but what have you witnessed in terms of the spectrum of people who show up and the spectrum of what really constitutes a brain injury?

**Ms. Elisabeth Pilon:** Thank you, MP Hanley. It's really good to be here with you.

I'm going to make a quick reference to my speech here, where I noted that we have brain injuries including stroke and people recovering from and living with the long-term impacts of stroke, electrical injury, concussion and survivors of severe TBI from car accidents and things like that. It's such a wide range of injuries.

In the beginning, we had caregivers and everybody attending but then quickly realized that to have both parties attending at the same time was actually not in service of the best interests of everybody. We realized it would be best to separate the parties to have caregiver supports as well as people living with impacts of brain injury themselves, first-hand.



It could be anything. I referenced this moment of lying on the floor because people had been sent my way to talk about their experiences with brain injury, and they had asked me about mine, and we were just so in need of the connection that comes from and is deeply impacted by these conversations with each other. We would share stories, and there was this understanding across the room without having to say almost anything, regardless of the type of brain injury, of this one string of universal experience that we could all understand without having to name it. To have that space to be together was so powerful. I realized that even if sometimes I was still not well enough to show up in the way I might have wanted to, to be there in any way and promote showing up exactly how we are was a really important way to lead. Someone said, “Be the cleanest dirty shirt”, so there I was just trying to be the cleanest dirty shirt to hold that space.

**Mr. Brendan Hanley:** I'm going to cut back in there, because I have only a couple of minutes left.

Can you describe a bit—you referred to this—how brain injuries may be more difficult to understand, assess or treat in the north and in more remote regions of Canada?

**Ms. Elisabeth Pilon:** I was sent down south to St. Michael's Hospital—my family came and got me—where they had assessments and information to provide me. That's where they had a community of people and specialists and the access to brain scans and things that we simply don't have here.

That was deeply impacting, as well as just the simple frontline education in the hospital: having someone tell me to drive myself home or not and tell me what I might expect. All of those things can make a world of difference.

• (1610)

**Mr. Brendan Hanley:** Thanks.

I know that assessment and treatment for concussion in particular, and brain injuries in general, are perhaps a little more nuanced and sophisticated than they used to be. I know that Dr. Beauchamp referred to that progress. I would say that Dr. Powlowski, Dr. Ellis and I would remember the days when we just told people with concussions to go to bed and lie in a dark room until they were ready to go.

How would this bill help to get that consistent level of awareness and education to the front line in terms of managing concussion and brain injuries?

**Ms. Elisabeth Pilon:** That's a good question.

I don't fully know, but what I do know is that we need to know more. I hope that this bill will provide access to methods of data collection to understand more of where the gaps are, like Janelle said, what's working and what's not, and to figure out how to pinpoint that to provide more education to frontline medical practitioners across the fields of mental health, substance use, etc. Those are some things that come to mind.

**Mr. Brendan Hanley:** Thank you.

**The Chair:** Thank you, Dr. Hanley.

There are eight seconds left. That's certainly not enough time to pose a question and get an answer.

[*Translation*]

Mr. Thériault, you now have the floor for six minutes.

**Mr. Luc Thériault (Montcalm, BQ):** Thank you, Mr. Chair.

I thank the witnesses for their very interesting testimony.

In rereading the bill and listening to the witnesses, I thought to myself that it was quite surprising, upsetting, even astounding, to see that the cerebral cortex, the organ that enables humans to hold the highest position on the species ladder, is the one on which we know the least.

In testimony, the word “research” kept coming up, much more so than in the study of many bills. Without research, this bill... There was a time when it was taboo to talk about sports-related brain injuries. That's not insignificant.

Ms. Beauchamp, I was shocked by what you talked about. I don't want to make a pun, but I've always thought that Canada, as a G7 country, should invest heavily in research in order to keep the brains here. You said that, in 15 years, you had supervised 48 students who survived solely on grants—I don't know the amount of those grants—and who, by devotion, had to continue doing research in this field in Canada.

Can you tell us more about that?

**Ms. Miriam Beauchamp:** Thank you for the question.

Before talking about students specifically, I have to explain something. People often forget that any treatment or clinical intervention is the fruit of many years of investment in research. If a medication is used to treat something, if there are digital health applications or questionnaires... All such treatment or assessment tools had to be validated before being used on patients, and it is through research that those tools are validated.

Someone said that, not long ago, the recommendation was for people to stay in a dark room to recover. Recent research has shown however that people who do that develop symptoms of depression as a result of being isolated and without social interaction. That is detrimental to their recovery. It took years of research and investment to be able to prove that.

I wanted to point that out to remind people that research underlies all clinical initiatives approved by Health Canada.

Now I will talk about students. If they do not have a bursary, they need to work. Most of them no longer live with their parents. Their lives are not necessarily structured and they are in school or in training full time. If they don't have a bursary to rely on, they will have to work, which reduces the time they can spend on research. That also delays their graduation. In many cases, it exhausts them and they can't make adequate progress. So they depend on those bursaries, which in some cases are below the poverty line. The bursaries aren't enough to cover tuition fees and living expenses. The bursary amounts were increased recently, but people must really be given adequate support because they are the ones who are advancing research.

• (1615)

**Mr. Luc Thériault:** We would not be having this conversation today were it not for advances in science and data. We talked about data earlier, but there are no data without research.

Do you think research on brain injuries is making good progress in Canada?

Does the government's funding or investment allow you to keep up with or compete with other countries? In other words, is it enough for you to keep your people, even though you are very nice?

**Ms. Miriam Beauchamp:** It certainly isn't enough. As I said in my introductory remarks, research is extremely expensive and is becoming more expensive because the technologies we want to use are on the cutting edge and are extremely expensive.

I mentioned neuroimaging, among other things. As Mr. Fleischer said, taking an image of the brain to see what is happening is expensive in itself. Doing that for hundreds of individuals in order to collect data on what is happening functionally or structurally in the brain would therefore be extremely expensive, as you can imagine.

When we are conducting research, it costs about \$500 or \$600 to take an image of the brain. If you multiply that by 200 or 300 individuals, to enable the researchers in my lab to conduct a sound study, the cost of the research project would be exponential. We want to be on the cutting edge in our field. We need to work with researchers in other countries, but we also have to compete with research conducted elsewhere in order for Canada to be a leader, to pursue the best research questions and ultimately to find the best treatments.

**The Chair:** Thank you, Mr. Thériault and Ms. Beauchamp.

[English]

Next we have Mr. MacGregor, please, for six minutes.

**Mr. Alistair MacGregor (Cowichan—Malahat—Langford, NDP):** Thank you very much, Mr. Chair.

It's certainly a unique experience for me to be at a committee questioning witnesses on the bill that I introduced. I want to thank all of my colleagues for their unanimous support of this bill at its second reading.

I also want to thank each of the witnesses who are with us today for their opening statements. I think it's really important for us to hear the personal stories that are behind lots of these things. I really

appreciate how you're helping guide this committee through its study of this legislation.

Ms. Breese Biagioni, I'll start with you, given that you are my constituent. Thank you for sharing how personal this issue is for you. I do well remember back in 2018 when we had that meeting. I believe you had just come from a conference called Heads Together. One of the recommendations from that was the establishment of a national strategy on brain injuries. That was the idea that led us to where we are today.

I wanted to ask you this. When you look at all of the ways that provinces and the federal government could tackle this issue, why is it important to you that we actually put in a legislative requirement for a national strategy? Why did that strike you as being an important item for the Parliament of Canada to address?

**Ms. Janelle Breese Biagioni:** Thank you, Alistair.

You know, I didn't start out to be a clinical counsellor. I was actually studying to be an accountant when my husband was injured. Going into clinical counselling and being able to work with families and survivors, seeing how they were struggling, and then looking at what was happening in communities where these crises in mental health, homelessness and criminality were on the rise, and understanding how people were getting there, I was seeing that there was nothing to address the challenges people were facing to prevent them from going further or spiralling down. It became quite a concern for me.

I was also realizing that from province to province, and in the territories, there was not provincial representation. The little organizations that were coming together were struggling for guidance and looking to the provinces. In some of the provinces, or in the territories, as Lis has so eloquently said, those services and supports were not there.

I knew that our federal government was responsible for brain injuries with our indigenous communities and with our veterans. That's why I came to you to say that this can be the north star, where all the provinces must come together, have the conversation, look at what's working and what's not working and share the information, but be accountable and move forward with strategies that every jurisdiction can put into place to safeguard our Canadians from going further into these challenges and not having the life they deserve.

• (1620)

**Mr. Alistair MacGregor:** I'm glad you mentioned homelessness, mental health issues and addiction, because Bill C-277 does reference those as part of the national strategy. I think it's important.

I want you to talk about how brain injuries interact with these really big societal problems. Do you believe the implementation of a national strategy in dealing with brain injuries will have a positive effect in dealing with the intersections with the criminal justice system and the obvious mental health crises that so many of our small communities have, and of course so many of our fellow citizens are suffering through addictions in our opioids crisis?

**Ms. Janelle Breese Biagioni:** What's really important to know is that the very first thing that will be taxed with brain injury for that individual and their family is their mental well-being. There is nobody I've ever worked with who's gone through this experience, including me, who didn't use the words "anxiety" and "depression". When you don't have those supports to help you understand what's happening, you're left to navigate a very siloed system.

In British Columbia especially, we see that people can't access services outside of something. If you have a brain injury, you are denied services for mental health or addiction. It's considered too complex. They don't know how to handle it. But those intersections are real. When we don't address what a person is going through with their mental health, and they turn to substance use to cope, or they're on prescription medications that can lead to those addictive cycles, it gets out of control. We just leave them in this ocean of emotion without any safeguards. That then leads to further complications.

Certainly for families that are taxed, trying to navigate the system and get support when they're not even included is exhausting. We often see families fracture and these relationships end. The person then often ends up on the street. We've now clearly been able to see from the research that with all these intersections, the root cause is often brain injury. That's why I say it lives at the forefront but also in the aftermath.

**Mr. Alistair MacGregor:** Thank you.

Mr. Fleiszer, I'd like to turn to you for my last minute here. Your organization does incredibly noble work. There are so many organizations that are involved in this field, all with such noble goals. I'm wondering if you could give your opinion on how a national strategy will maybe build up a culture of collaboration among all these great organizations that are doing this important work across Canada.

**Mr. Tim Fleiszer:** One of the great lessons you learn from team sports is how to play with others. Working with others, you're able to accomplish so much more than you can on your own.

I'm pleased to report that it's already happening. We've tried from the beginning to be inclusive rather than exclusive. There's absolutely a role for all the different organizations to play in a cohesive national strategy. We just need somebody to lead that strategy. We're so thrilled that you have us here today to talk about that.

**Mr. Alistair MacGregor:** Thank you.

**The Chair:** Thank you, Mr. Fleiszer.

Mrs. Goodridge, you have five minutes, please.

**Mrs. Laila Goodridge (Fort McMurray—Cold Lake, CPC):** Thank you, Mr. Chair.

I want to thank all the witnesses for being here.

As I was preparing for this meeting, I was reviewing the correspondence that has come in. An exceptionally large amount of correspondence has come in to each one of us as members of Parliament from people right across the country who have written in to the health committee to share their experience. I just want to acknowledge that I appreciate that. It helped me as I was coming up with my deliberations over this. Those things do get read by somebody. You are heard.

Ms. Breese Biagioni, I'll start by expressing my sincere condolences. Thank you for taking your grief and turning it into something to keep your husband's legacy alive. I think that's a commendable space.

Should this bill succeed in getting through the House, what do you hope to see as an outcome from this?

• (1625)

**Ms. Janelle Breese Biagioni:** First and foremost, I would hope this comes together to bring together the lived experiences and the voices of survivors and family members to talk about what's needed and collaborate, because there are things that are working in this country and there is a lot that's not working. It's to be able to have that conversation to share the education and information, and develop some guidelines and best practices we can all work from. Also, determine what future research is needed. We have a lot of great research that has been done. There's a lot more that still needs to be done.

It's guidelines, education, prevention and the training of health care professionals. When I say "training", it's from the nurse and the doctors to the frontline workers and our police officers, who are really becoming our social workers on the streets, so they're able to respond in an efficient way and to know where to turn and where to send that person.

I'm hoping that coordination can come through with all of us. I really believe in my heart that unless we have collaboration and conversation across the country, that won't be there.

**Mrs. Laila Goodridge:** Thank you. I appreciate that.

Tim, I really appreciated the opportunity we had to meet back in June. I learned something that I thought was actually quite shocking, how soccer is one of the things for youth that are actually far riskier than I had thought.

You have an opportunity here to speak to Canadians. Can you explain a little bit about the work you guys are doing to keep kids safe?

**Mr. Tim Fleiszer:** If there's one single policy change we can make in sports in Canada to protect kids' brains, it's eliminating headers in soccer for kids under the age of 12, certainly, and probably under the age of 14 would be even better.

Just for context, there are 550,000 youth hockey players in Canada and 750,000 youth soccer players. By participation, it's by far the largest sport. The majority of the exposures in soccer happen in practice with an adult lobbing a ball at a child, so it's entirely preventable. As a former athlete, I actually don't really buy that kids need to learn to play the ball in the air so much that it should equate to a factor of an activity that we know gives them brain injury.

When you think about CTE and CTE risk, it's important to understand that it's not the number of concussions that athletes have sustained; it's the number of total impacts that athletes get during the course of their career.

In the United States, they banned headers for soccer in 2016. They've recently done it in the United Kingdom. We're now behind.

One interesting thing with this is that, if you're talking about athletic performance and reaction time, some of the research that's been done just down the street at Western University has looked at those impacts and reaction times. It's found that for football players who see exposures in practice and games during the course of a season, it sometimes makes them 15% to 20% slower during the course of the year in terms of their reaction time.

Even if you don't care about the health of these kids and if you don't care about the ethics of exposing children to an activity that potentially gives them brain injury, just for pure athletic performance, we shouldn't be hitting kids in the head.

Thank you for the question.

**Mrs. Laila Goodridge:** I would assume everyone around this table agrees that we shouldn't be hitting kids in the head. As a parent, I think that's so important. I want as many Canadians as possible to know, because that will guide best practices as we go forward.

I think my time is up.

**The Chair:** Thank you, Mrs. Goodridge.

Next I have Dr. Powlowski, please, for five minutes.

**Mr. Marcus Powlowski (Thunder Bay—Rainy River, Lib.):** I have six kids. Two kids are in minor hockey. Speaking about trying to prevent your kids from getting hit in the head, that has to be a concern of all parents who have kids in minor hockey, especially when they're over 13, which is when they start allowing contact.

You have kids in hockey, too, Mr. Fleiszer. Let me ask you, do you think the NHL is doing enough to prevent head injuries and forms of behaviour on the ice that lead to head injuries? I assume you watch the playoffs.

• (1630)

**Mr. Tim Fleiszer:** I do.

**Mr. Marcus Powlowski:** We all watch the playoffs. Kids emulate NHL hockey. We all emulate hockey. I don't know about the rest of you, but I grew up wanting to play in the NHL. I never wanted to become a member of Parliament. That's some kind of sick ambition for any Canadian. To want to play in the NHL is the ambition of every Canadian kid.

We all watch hockey and all the kids watch hockey. They emulate what's in the NHL. I don't know about you, but I'm a little concerned with what's happening in the NHL. In the playoffs in particular, it seemed to me that they weren't calling a lot of boarding, charging or roughing. They call high sticking and they call tripping, but there seemed to be a lot of people being hit three or four feet from the boards and going head first into the boards, and there were no calls. Not only were there no calls, but there was no commentary from the commentators saying that this was a dangerous hit, which they usually do.

I wonder what your opinion is on that. Do you think the NHL is doing enough to discourage kinds of behaviour that lead to head injury?

**Mr. Tim Fleiszer:** I think the short answer is no. I absolutely agree with you.

I'm a season ticket holder for the Habs, and I go to the games with my kids. They ask a lot of tough questions. It's very difficult to watch two NHL players fighting on TV and then, in the same breath, turn around and tell my kids they need to take care of their brains. It's a very awkward conversation.

What I'd love to see in sport, as the leader and the pinnacle of the sport, is the league taking a tougher stance on brain injuries and looking at things like fighting.

**Mr. Marcus Powlowski:** I'll give you another example. This one is when an Ottawa Senators player had an open-net goal. He went right up to the goal and shot it in, and then Morgan Rielly from the Leafs went and cross-checked him in the head because he was hot-dogging. Sheldon Keefe, the coach of the Leafs at the time, said it was deserved and the guy was hot-dogging. I heard nothing in response to that. I didn't hear the NHL criticizing that. I didn't hear sports writers criticizing that.

Is that not the kind of thing we ought to be discouraging? I don't want my kid getting cross-checked in the head and figuring it's justified because they were hot-dogging. Do you have any comment on that one?

**Mr. Tim Fleiszer:** Again, children absolutely watch pro sports and absolutely take their direction from pro sports.

When you're talking about adults participating in a sport.... Our organization, in particular, has autopsied a number of former NHL players and found CTE in the brains of players like Stan Mikita and Henri Richard, who were not just enforcers, but skilled players. It is absolutely a hockey issue.

Look, hockey is wonderful for all kinds of reasons, such as personal development, which is why I have my children participating in it, but we absolutely have an awkward misalignment in terms of messaging between the National Hockey League and minor sports. I'd love to see that corrected.

**Mr. Marcus Powlowski:** How do you bring together your concern for head injuries and concussion and letting your kids play hockey?

**Mr. Tim Fleiszer:** Later this year, a month from now, we will have Marty Walsh, who's the head of the NHLPA, in Boston. He'll be making some interesting announcements about the NHLPA.

It's great to see the players starting to think about and consider this more, not just for their own health, but for the example of kids.

**The Chair:** You have time for a short question and a short answer.

**Mr. Marcus Powlowski:** I noticed you mentioned that your kids play hockey and soccer, but not football. You played football. Why don't they play football?

**Mr. Tim Fleiszer:** They play flag football. Again, football is a wonderful sport and it is wonderful for personal development. I had an outstanding experience playing the sport.

I just want to be clear that our message is not that kids should not be participating in sports. Kids should be playing more sports. They should be more active. However, kids don't need to be tackling each other at six years old. They can play flag until they're teenagers and their bodies are better able to handle it.

Football has done a really good job of limiting contact in practice. You've seen that in the last two CBAs in both the NFL and the CFL. You've seen a new kickoff introduced this year. Our data was that 30% of brain injuries were happening at kickoff, so it's great to see the NFL starting to address that. We've consulted with high schools and actually suggested the elimination of kickoffs in high school to try to help kids' brain health.

There are certainly ways we can practise and play these games much more safely than we have.

• (1635)

**The Chair:** Thank you, Mr. Fleiszer.

[*Translation*]

Mr. Thériault, you have the floor for two and a half minutes.

**Mr. Luc Thériault:** Ms. Beauchamp, I know you talked a bit about this already, but I would like to know more about your research objectives. I read somewhere that you want to create targeted, technical and immersive research tools.

Could you tell us where you are in your research?

**Ms. Miriam Beauchamp:** Yes, of course. I am always pleased to talk about our work.

First of all, a lot of my research focuses on very young children, babies and preschool children. Today we have talked a lot about concussions from sports, but I want to remind the committee that head injuries occur at all ages. Children up to the age of five actually have the highest rate of head injuries, comparable to the rate in young adults. We are not talking about teenagers or older adults, but very young children. This fact is not well known, and I am not referring to head injuries from sports. They are the result of falls. Children fall down stairs, from change tables, grocery carts or scooters, for instance.

So a lot of our work focuses on this subgroup that has long been overlooked. We are very far behind in our knowledge about the effects of such injuries on very young children. So we are in the pro-

cess of establishing initiatives compatible with Bill C-277. Just last week, we launched a website with educational tools to raise awareness of this problem and to help people detect the signs of concussion in young children. The website also provides information about treatment, of course, which requires parents to help these very young and vulnerable children in their recovery.

We are also establishing digital health tools. For school-aged children and teens, our approaches are based on tools such as virtual reality and educational games, because we know that young people today have to be engaged by tools that are interesting to them. Those are the treatments and interventions we use for their rehabilitation, together with clinicians who have an overview of recovery in young people.

**Mr. Luc Thériault:** Do you think that—

**The Chair:** Thank you. That's all the time we have.

**Mr. Luc Thériault:** Perhaps someone else could continue, in that case. I wanted to ask the following: Do you think the medical community is aware of your work?

**The Chair:** You have—

**Mr. Luc Thériault:** If someone could give Ms. Beauchamp their speaking time to answer the question, that would be great.

**The Chair:** Your three minutes are up. Thank you, Mr. Thériault.

[*English*]

Mr. MacGregor, please, you have two and a half minutes.

**Mr. Alistair MacGregor:** Thank you very much, Mr. Chair.

I'd like to turn this question to Elisabeth Pilon.

Ms. Pilon, thank you so much for recounting your personal journey through this.

When you look at Bill C-277, there are requirements as a part of this national strategy to promote information and knowledge sharing, specifically with respect to brain injury prevention, diagnosis and treatment, along with rehabilitation recovery. There is reference to national guidelines, which would include recommended standards of care that reflect the best practices that are out there.

However, there is also a requirement to develop and provide enhanced and integrated mental health resources for persons living with a brain injury. All of these are legislative requirements of a national strategy that the federal Minister of Health has to develop with provincial and territorial counterparts.

You've told a very personal story about what it was like with the lack of resources that you had, and the long journey you've had to go through. If this kind of strategy, with these kinds of requirements, had been in place at the time you needed it most, what difference would that have made for you personally? Can you speak about people who are just beginning their journey right now and what kind of difference it would make for them as well?

• (1640)

**Ms. Elisabeth Pilon:** Thank you, MP MacGregor.

I imagine it's about being informed at the moment of injury. At the time, there was a maximum of eight physiotherapy sessions at the hospital. If you advocated with your family practitioner.... Most family practitioners, apparently, didn't know about it at the time, so I did that. I imagine being at the hospital and having all those doctors in emergency and my family practitioner being informed about what those potential collaborations could be, such as referrals to physiotherapy in an ongoing way, or perhaps referrals to a case manager or a system navigator to help me figure out what to do. Do I quit my job, if I can't do it? What if my doctor is saying I should go back? I imagine having someone to talk to who could help me make sense of what decisions I should make and what the consequences of them may be, and having connection to mental health supports that maybe I don't have to pay out of pocket for.

The sky is the limit on how we can collaborate among different practices, especially if we do so nationally so that there is a best practice standard of care we can all aim towards.

**The Chair:** Thank you, Ms. Pilon.

Next, we have Mr. Dalton for five minutes.

**Mr. Marc Dalton (Pitt Meadows—Maple Ridge, CPC):** Thank you very much to the witnesses for their important testimony. It's valid. It's appreciated.

Ms. Biagioni, I'm a member of Parliament from British Columbia. Thank you for the work you do in the province.

Health care is under a provincial umbrella. Obviously, we're talking about a national framework, which is very important. From your perspective, doing the work in B.C., how are you finding trends in head trauma and brain injury as far as supports, wait times and treatment go? Are things improving? Are things getting worse? Are they kind of stagnant? Where are things at?

**Ms. Janelle Breese Biagioni:** That's a very good question.

What is challenging is that we are discovering the vast number of ways brain injury happens, such as intimate partner violence. Dr. Paul van Donkelaar's study shows that, for every NHL player who suffers a concussion in the game of hockey, 5,500 Canadian women suffer the same type of brain injury. Whether you're in B.C. or Ontario, if you are one of those women and have never had medical support, never been to the hospital and never asked about head trauma, you're not going to get those supports.

That's the challenging piece we have right now. Yes, things are improving in some ways. We have smaller associations coming together to provide the community services and supports that we know work. However, they're not funded. They don't have core funding. Our provincial associations don't have core funding. It's

about trying to keep up with the discoveries we have now in terms of how brain injury is happening. Often, I feel like we're running up and down the dam, trying to put our finger in there to stop it from exploding.

I think that's our bigger challenge right now. We're becoming aware. We can't become unaware of how these brain injuries are occurring.

**Mr. Marc Dalton:** Thank you very much.

I was a teacher for many years, and then I was elected as an MLA. Then I went back to teaching for a while, and there was more information on brain injury. I saw it impact our young people and old people alike.

[*Translation*]

I have a question for Ms. Beauchamp about research.

Would you say that a lot of progress has been made internationally in your field of research? Have there been a lot of advancements in treatments?

**Ms. Miriam Beauchamp:** Yes, of course, there is a lot of progress.

I have been a researcher for 15 years. Compared to when I was at the postdoctoral level, there is a big difference now in what is recommended, said and known about head injuries. In my opinion, people sometimes think that the research is progressing so slowly that it isn't having any effect, but that is not the case. In a few years, we can find effective treatments and start to apply them quickly.

Investing in research is really worthwhile. We need that research. In recent years, we have seen very rapid advances in head injury research. Applying that research is part of the scientific process. When we can prove that a given intervention or treatment works, we also use science to decide on its application, that is, to demonstrate whether it is useful in a clinical setting or not. That is what research and science are all about.

• (1645)

**Mr. Marc Dalton:** Thank you very much.

In Canada, I believe we have 20,000 or 30,000 physicians and 30,000 or 40,000 nurses from other countries who cannot work in their field. I have met a number of them who are specialists.

I am a Conservative MP. My party is proposing "Blue Seal" certification, a standard national professional exam, in order to quickly issue licenses to professionals.

Do you think that would be helpful, even in your area of specialization?

I see that my speaking time is definitely up.

**The Chair:** He's right; his speaking time is up. Please answer the question briefly, if you could.

**Ms. Miriam Beauchamp:** Thank you.

Regardless of where a person comes from, their training or origins, the standardized training and knowledge that we have is beneficial to everyone.

**The Chair:** Thank you very much.

[English]

Next is Ms. Sidhu online for five minutes.

**Ms. Sonia Sidhu (Brampton South, Lib.):** Thank you, Mr. Chair.

Thank you to all the witnesses in this meeting for sharing your experience and knowledge on this important issue.

My first question is for Ms. Pilon.

Following on something that Professor Beauchamp mentioned, what role do you see peer and community support programs playing in a national strategy on brain injuries? What are the best ways to foster that peer support across Canada?

**Ms. Elisabeth Pilon:** That's a great question.

Right now I'm reaching out to different peer support programs across the country and in Alaska to understand how they offer the services they offer so we can learn from each other. This way, I can learn from them and continue to improve the services that I offer here in Yukon.

First of all, peer support offers a way of understanding each other with a sense of belonging without having to do the labour of explaining, as I mentioned before, and being able to share the resources and the learnings that we've all accessed in our own journey. That impacts us by giving us a sense of belonging and psycho-education about what's happening to us, as well as different resources, and it's very empowering.

I imagine different peer support networks across the country, and I imagine us all collaborating, with Peer Support Canada being a great model. They trained me in what I'm doing and are mentoring me in my peer support as well. I believe there is already good infrastructure for peer support and for how we can continue to come together, provide feedback, provide experience and experiential data and share our stories to inform all of the directions that things can possibly go.

**Ms. Sonia Sidhu:** Thank you.

My next question is for Professor Beauchamp.

Professor Beauchamp, what kind of training do frontline staff need to recognize the signs of brain injury among the most at-risk groups?

**Ms. Miriam Beauchamp:** It's a great question, because I think there are different levels of training that we can offer and standardize through this national strategy. Obviously, health professionals and physicians will have more in-depth training in terms of diagnosis, but there are a lot of initiatives at the moment across Canada to offer, for example through massive online courses, training for people who don't have medical expertise or health expertise. These are things that we can come together and collaborate to standardize for people.

I'm thinking here, obviously, in a sports context, of coaches, but also, as somebody mentioned, teachers. This could include teachers, after-school care workers and educators, for example. I mentioned that my work focuses on young children, so this would include day care workers and day camp and summer camp workers. All of these people can be trained to at least recognize when a significant event has happened that could lead to head injury. For many people, it doesn't even cross their mind.

Now we can offer standardization of training for these people.

• (1650)

**Ms. Sonia Sidhu:** Thank you.

My next question is for Ms. Biagioni.

I appreciate that you brought up the connection to the issue of intimate partner violence. The Public Health Agency of Canada and other federal health departments have been working to provide funding to support women survivors of gender-based violence who are experiencing traumatic brain injuries.

What more do you think can be done to expand those initiatives?

**Ms. Janelle Breese Biagioni:** Thank you. That's a great question.

Again, there's training and education so that the person who's coming in contact with that individual would be able to ask some questions. Also, it's helpful to have people in the public with the ability to understand why this woman may be struggling with different challenges in her life, whether it's parenting, getting to work or keeping her appointments. That public education and awareness can help lead to some pertinent questions that could help link her to services.

I think another critical point is to understand... A small study was done in Victoria with the Cridge Centre for the Family that looked at the abusers in the intimate partner violence. What they discovered was that the number of abusers who had a brain injury was 100%. Again, it's that prevention, education, awareness, and then providing intervention. We can prevent intimate partner violence by providing those interventions, both for the women so that their life will be thriving, and also for the men and/or women who are the abusers and have a brain injury. We have to have that as one of the pillars.

**The Chair:** That's your time, Ms. Sidhu.

**Ms. Sonia Sidhu:** Thank you, Mr. Chair.

**The Chair:** Next we have Dr. Ellis, please, for five minutes.

**Mr. Stephen Ellis:** Thank you very much, Chair.

I am going to split my time with Mrs. Goodridge.

I have one quick question for you, Mr. Fleischer. I guess there are two parts. When you look at the research being done in Canada, how do we compare with the rest of the world? I know you talked about some partnerships. Second, I know Ms. Biagioni talked about the incredible prevalence of intimate partner violence and head injury. Certainly, the prevalence is way more than in professional sports. Is the research that is coming out transferable knowledge to other forms of head injury? How are we doing, and is there a transfer of knowledge? Thanks.

**Mr. Tim Fleiszer:** I'm proud to say, as a Canadian, that some of our researchers are among the world leaders on this issue. I mentioned specifically the work that's being done at CAMH, looking at radio tracers and PET scans to be able to diagnose chronic traumatic encephalopathy in vivo, which is game-changing when thinking about people who are potentially affected by that disease. It's not just athletes, but also military personnel and survivors of accidents and violence. This is important research for all those different folks affected by brain injury.

I was able to tour Dr. Beauchamp's lab a couple of months ago. Some of the work that she's doing with the pediatric population, again, is world-leading in terms of how we think about that.

There's the work at the Canadian Concussion Centre, which is part of our global brain bank, where they're doing autopsies and looking at CTE. Again, they're leading the world in this.

That being said, I will advocate on behalf of our researchers. These folks are doing a lot with a little bit, especially within the context of our neighbours to the south. We work very closely with our U.S. chapter. Obviously, they're dealing with much more resources. However, I'm very proud to say that Canada is absolutely a huge contributor on a global level, and this research is absolutely applicable not just to athletes, but to anybody who's exposed to brain injury and repeated head impacts.

• (1655)

[Translation]

**Mrs. Laila Goodridge:** I would like to turn to Ms. Beauchamp.

I am a mother of two little boys, who are one and three years of age. You talked about the importance of research on head injuries in children under the age of five.

What do you tell parents to help them monitor their child after they have suffered a head injury so they know when to seek further assistance, go to the hospital or see a doctor?

In many cases, parents don't know what has happened when their child is in crisis. How can parents tell if their child has suffered a head injury and if they need to go to the hospital?

**Ms. Miriam Beauchamp:** Thank you for the question. I am also a mother of three. That is where my research work and personal life intersect.

That is a very important question because we need to use very different approaches for young children as compared to older children. A two-year-old can't verbalize what has happened to him or what he feels. A two-year-old can't say he has a headache, for instance, that he feels dizzy or confused.

Just last week, our lab launched a whole series of free tools that we have developed specifically for that population. We give parents and educators tools so they can recognize what's happening by observing the child's behaviour.

If a two-year-old has a headache, for example, he might rub his head or hold his head to show that it hurts. That is just one example, but I think it illustrates the need for different tools at different ages. It underlines once again the complexity of concussions and head injuries.

So we absolutely need a plan and tools for everyone, for all ages. We need different strategies and different tools for all ages, and that requires us to develop, validate and implement them in a clinical setting.

[English]

**Mrs. Laila Goodridge:** Just to have a little on the record in English, are there any resources out there right now for parents with young children to be able to recognize the signs, so they know how to best respond to a potential brain injury?

**Ms. Miriam Beauchamp:** I mentioned that we just launched a website that is outward-facing, toward the community, and that has free resources, including a concussion detection tool. It is not a diagnostic tool, but a tool that educators, parents and other significant adults in a young child's life could use to recognize that there might be a worrisome hit to the head or body that could lead to a concussion.

This is work that we've done in Quebec and that we want to disseminate widely, but obviously having collaborations and some strategy nationally would help us to bring those things together and to share them more efficiently.

**Mrs. Laila Goodridge:** Thank you.

**The Chair:** Thank you, Dr. Beauchamp.

Next we're going to go to Dr. Hanley, and I think he's splitting his time with Dr. Powlowski.

Dr. Hanley, you have the floor.

**Mr. Brendan Hanley:** Thank you very much. Mr. Chair, I lost my stopwatch, so maybe you can remind me when I'm halfway through.

I have two quick questions.

Mr. Fleiszer, I have a 16-year-old in grade 11 who, to my surprise and somewhat concern, both from my worried parent half and also from my emergency physician background, signed up for the high school football team in grade 11. I'm thinking, of course, of ACL, shoulder dislocation and brain injury.

Maybe you could just briefly reflect on what the best practices are. Are there best practices available for high school football and related sports like rugby?













