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The true cost of injuries to NHL players: \$218-million each season

By ROY MacGREGOR

St. Mike's researchers studied 1,307 players who participated in at least one regular-season NHL game during three past seasons

Michael Cusimano had a simple idea: If we worry about the cost of absenteeism in the workplace, what about at the hockey rink?

Dr. Cusimano, a neurosurgeon at Toronto's St. Michael's Hospital and an internationally recognized expert on concussion injuries, thought if he could assign a dollar sign to head injuries, he might get the attention of the National Hockey League – and perhaps even improve player safety all the way down to minor hockey. If losing more than \$40-million a year to concussions doesn't get their attention, perhaps nothing will.

The St. Mike's Canadian Brain Injury and Violence Research Team studied 1,307 high-level players who participated in at least one regular-season NHL game during the 2009-10, 2010-11 and 2011-12 seasons. On Monday, the results are being published in the British Medical Journal's Injury Prevention.

Working primarily with fellow medical researchers Laura Donaldson and Bing Li, Dr. Cusimano established that 825 of the players – or 63.1 per cent – missed one game or more to injury over that time period.

The researchers then applied the games lost per player to that player's salary – all information readily available to the public – and found that:

- The average number of games missed by the injured players was 8.8, or 11 per cent of the regular season.
- The average salary cost for injuries was \$260,300 (all figures U.S.).
- Total salary costs due to injury over the three seasons was \$653-million – nearly \$218-million each season.
- The cost of concussions alone was an astonishing \$128.5-million, or an average of \$42.8-million a season.

While team insurance would cover some, but far from all, of the losses (team insurance policies generally cover 80 per cent of lost salary if a player loses more than 30 games to a single injury), the fact that approximately one-half of the entire league loses playing time during each regular season should be cause for concern, the researchers claim.

"This is an unacceptably high rate of injury for any workplace," the team concluded.

"We talk about lost productivity and what it costs in every field," Dr. Cusimano told The Globe and Mail in a weekend interview.

"People don't show up to work, it costs that company in money. We hear about absenteeism and how much it costs in productivity. So I said, 'Well, these players are absent from their work, basically. Let's try to put a dollar figure on that.'"

While NHL teams have become increasingly vague in describing injuries – using euphemisms such as "lower body" and "upper body" – researchers found enough information to break down injuries over a 30-week sample into nine categories: leg/foot, head/neck, shoulder, groin, arm/hand, chest/abdomen, lower body, upper body and undisclosed.

While leg and foot injuries were most costly (\$68.2-million) during the sample period, head and neck injuries were close behind (\$58.3-million). As a neurosurgeon, Dr. Cusimano believes this is the one area where the most improvement can be made. You cannot stop players from blocking shots, but you can significantly lower the number of head injuries, as new rules in minor leagues have shown.

Researchers found that 323 concussions or suspected concussions occurred over the three seasons they examined. Just over 10 per cent of the concussions resulted in more than 30 games lost. Concussion "costs" to the insurance companies ran to \$21.6-million, while teams were out \$44.9-million over that time period.

"Employers are morally responsible for protecting their employees," Dr. Cusimano said. "The NHL owners need to do a better job of protecting their athletes – if not for their players, then for their own pocketbooks."

The influence of the NHL, however, is so vast that, in Dr. Cusimano's view, it tends to undermine actions taken at lesser levels in the game.

"It's trickling down to kids and youth," he said. "We have hundreds of players in the NHL, but we have thousands and thousands of kids who are copying those 'heroes' who are getting injured. And the kids are paying the price."

So, too, are ticket buyers. The high cost of insurance and the very high cost of uninsured injury must be absorbed by the various NHL teams and then passed on to ticket buyers. "When it starts to hit people's pocket books," Dr. Cusimano said, "it may help to move that change."

The NHL has taken some steps toward eliminating such injuries. In 2010-11, Rule 48 was brought in to declare hits to the head from a player's blind side illegal and, a year later, hits to the head from any direction were banned. Researchers found little or no effect in decreasing the number of concussions suffered. And the league, of course, has done nothing to eliminate fighting, which accounts for 8 to 9 per cent of concussions in the current NHL.

"We still hear that argument that violence brings in revenue," Dr. Cusimano said. "Well, it also costs. And I'm sure they're building in that cost – so it costs the consumer."

He says the NHL is not solely to blame, that broadcasters and certain individuals – he pointedly mentions Don Cherry of *Hockey Night In Canada's* Coach's Corner – have vested interests in maintaining the status quo in the game.

"All these groups earn money from propagating a certain thing," he said. "But who pays the price? The sad thing is it's the kids who pay the price because they emulate all these other people."

"A kid may have the potential to achieve a certain kind of job that would give him a certain amount of money and give him a certain amount of satisfaction, but because of multiple concussions or brain injuries they're not able to achieve that because they put their dream into hockey."

The neurosurgeon says he is bewildered by the fact that behaviour not tolerated by society remains tolerated in professional hockey: "We wouldn't accept one kid beating up another in the schoolyard, or walking by and giving an elbow to a guy's head, so why would we accept it on a hockey rink?"

Society has changed, he argues, and slowly, very slowly, he believes there are signs that hockey is attempting at least a little catchup.

"I think we are seeing changes," he said. "Hockey Canada raised the age of bodychecking [to above age 14]. Parents are moving their children away from the game. Enrolment is not what it was a few years ago.

"I think we are seeing little changes. I think we move in little steps in all these things, and I think the average person is listening. Will we ever get rid of it completely? No. Put somebody face to face with somebody else, it's inevitable something will happen. Accidents will happen." But that, he says, is no excuse not to do anything. "If people want to stick their head in the sand and not adapt to the reality, it is to their peril, and to the sport's peril, which is to me very sad because there are a lot of very good things about sports."

As a doctor, he said, "my role is to keep people healthy, and I've been doing that since I graduated in 1984. I love hockey. I think there are so many good things in all sports. It behooves us to make it as safe as possible. I am a neurosurgeon who never wants to see another brain-injured again. Prevention is the only answer here. I've seen too many ruined lives from injuries that are entirely preventable."