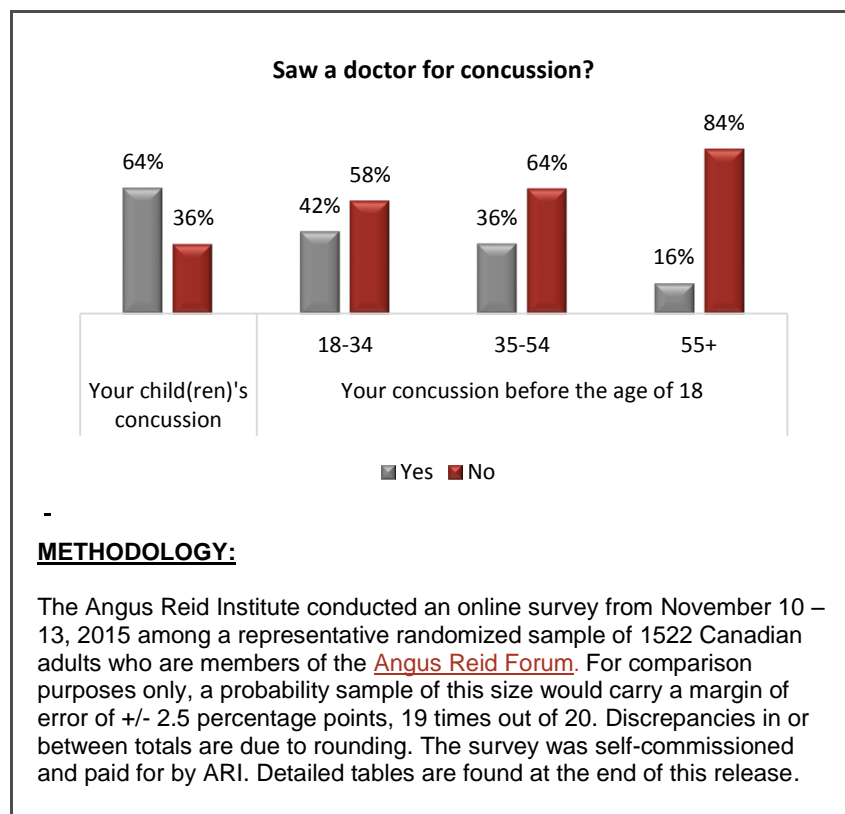


One-in-five Canadians say they've suffered a concussion playing sports; most before turning 18

Pattern of under-reporting concussions appears to be changing as awareness of brain injury grows

December 16, 2015 –While Canadians have become lamentably accustomed to seeing hockey stars such as Sidney Crosby, Paul Kariya and Chris Pronger suffer the effects of career-altering or ending head injuries, a new poll from the [Angus Reid Institute](#) shows damage from concussions hits even closer to home for average Canadians – one-in-five of whom say they've experienced such a brain injury while playing sports as a child or adult.

This comprehensive study of Canadian adults also indicates a higher level of reporting and treatment of concussions now than in the past – and significant support for regulations aimed at monitoring and preventing such injuries among young people.



Key Findings

- One-in-five (19%) Canadians surveyed say they've suffered a diagnosed or undiagnosed concussion while playing sports – either as minors (under 18 years) or as adults, or both
- Of those who played sports in their youth, nearly one-third (31%) say they experienced a concussion. Fully half of these people say the injury was never formally diagnosed
- More than two-thirds (68%) of those who were concussed playing youth sports did *not* see a doctor, although generational differences in the data show a trend towards seeking medical help
- Eight-in-ten (83%) agree the issue is “very serious and needs more attention”

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl

- Half of all Canadians say they aren't sure whether schools or youth leagues in their provinces have a good plan to prevent concussions
- There is near-unanimous support for a number of policy options, including mandatory education for coaches (95%) and requiring doctor's permission for return to play if an athlete is suspected of having a concussion (92%)

Canadians' personal experience with sports-related concussions

For the purposes of this survey, concussions were defined as “a brain injury that alters the way one's brain functions. Effects are usually temporary, and can include headaches, vomiting, and problems with concentration, memory, balance, and coordination.”

Given this definition, respondents were asked to indicate whether, while playing sports, they had sustained one or more concussions, or whether they had sustained an injury that they believe was a concussion but was not diagnosed as such.

As mentioned earlier, among those who say they had a suspected concussion playing youth sports, fully half say it was never formally diagnosed. This finding correlates to the vast underreporting of concussions that will be discussed later in this report.

Overall, roughly one-in-five Canadians (19%) reported in the survey they've had at least one sports-related concussion in their lives. This total is derived from the following survey results:

- 17 per cent of respondents experienced a concussion playing youth sports (31% of those who participated in sports before they turned 18)
- 7 per cent of Canadians experienced a concussion playing sports as an adult
- A total of 4 per cent had at least one sports-related concussion both as a child and as an adult

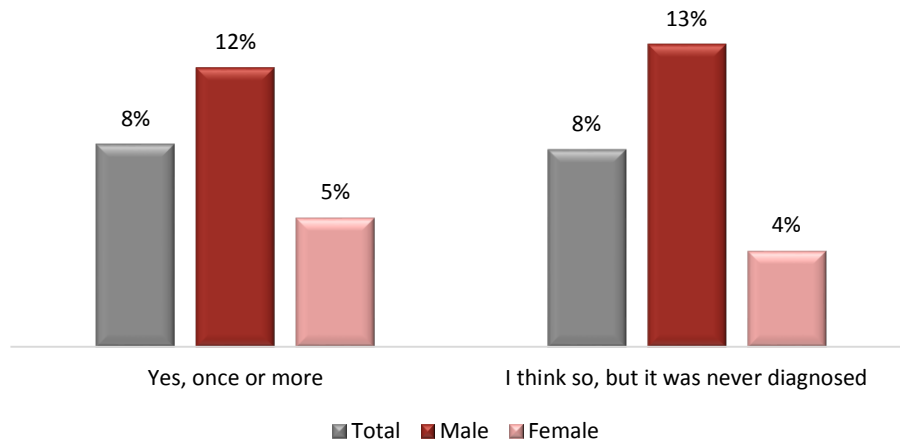
For the purposes of this report, ARI focuses on incidences of concussion in youth sports, which – as noted – account for the vast majority of concussions respondents experienced on the playing field.

This ARI data also shows men report suffering concussions playing youth sports by a three-to-one margin over women (24% versus 9%), as seen in the graph that follows. This disparity can largely be attributed to higher rates of participation in sports among men.

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl

Did you ever experience a concussion while playing sports before you turned 18?



The higher prevalence of concussions among men is in line with a [2013 report](#) by the BC Injury Research and Prevention Unit, which found that men account for an estimated 60 – 70 per cent of concussions among the total population.

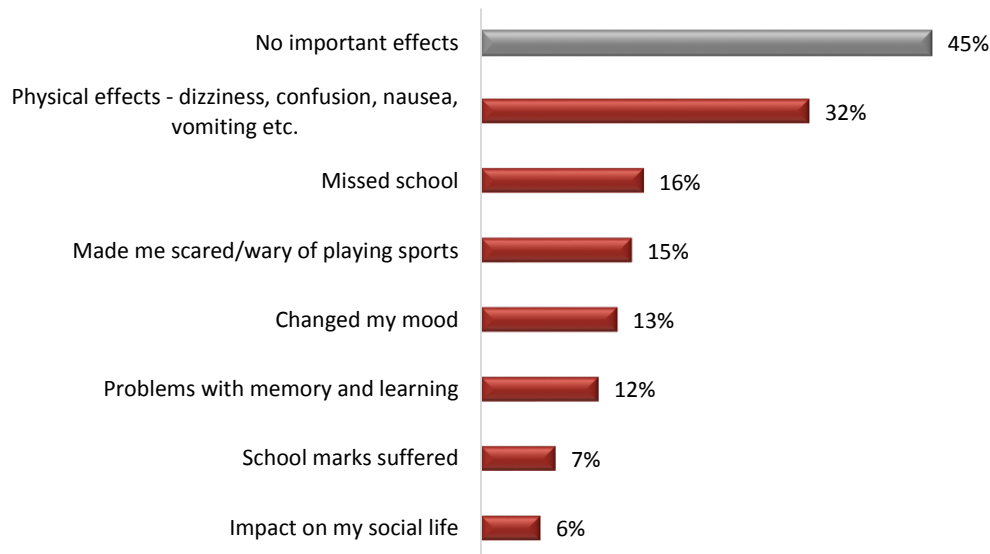
Notably, while men do experience higher levels of concussions on aggregate, when compared to women competing in the same sports – ice hockey, basketball and soccer – concussion *rates* among female athletes are actually [much higher](#) than their male counterparts.

Symptoms and Effects – what happened to those who got hit in their youth?

A brain injury with easily more than a dozen physical symptoms, concussion is also known for its cognitive, psychological and emotional effects on those who suffer from this blow to the head.

Among those who told the Angus Reid Institute they'd been concussed playing sports in their youth, just under half (45%) say they were able to escape without any enduring effects. Of the 55 per cent who did have symptoms, a variety of impacts are reported, as seen in the following graph:

Thinking about the concussion(s) you experienced when you were young, what were the effects - not just on sports, but on your life?



Asked about the duration of their symptoms, most (51%) say they dissipated within a period of hours to a day or so. For a smaller group (39%), the effects were longer lasting (see graph on the following page).

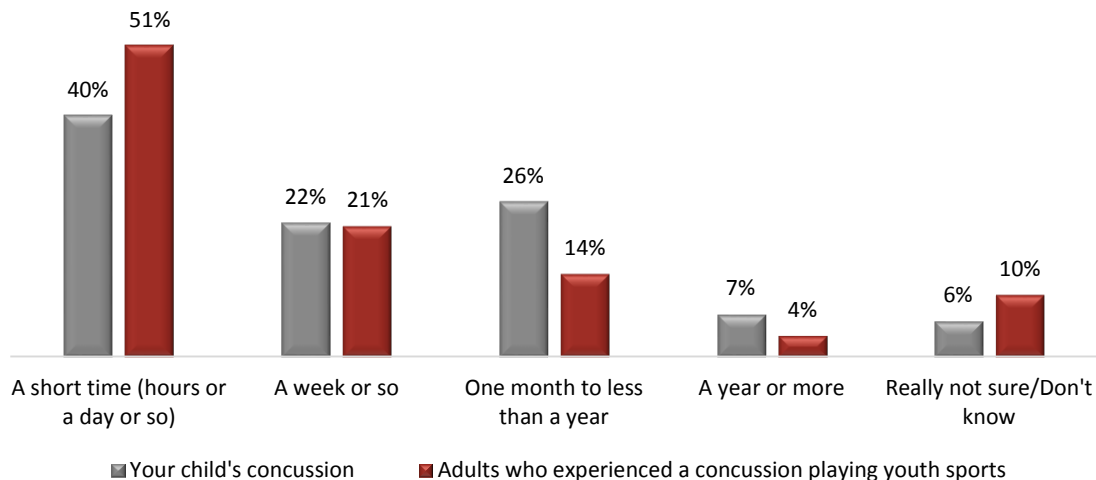
Symptoms and Effects on kids concussed today:

More than one-in-five (22%) parents with children in organized sports say their child has had a concussion or suspected concussion while playing. This includes both parents whose children currently play youth sports and those whose children used to play sports and are either adults now, or are still under 18 but no longer playing.

Comparing parents' experiences with their children's concussions to adults' memories of their own childhood concussions, an interesting pattern emerges: Parents are more likely to say their children's symptoms lasted for a month or more, while adults thinking about their own injuries in youth are more likely to say their symptoms lasted only a short time.

There are a few possible explanations for this discrepancy: it could be a product of parents' more recent experience with their children, the fact that parents are likely to be alive to their children's serious injuries (and, as we'll see below, many of those who had a childhood sports concussion said no adult was aware of theirs), or perhaps of increasing awareness of concussions and their symptoms.

How long did symptoms from the concussion last?



Concussion: significantly under-reported, but change is evident:

In many sports, athletes have traditionally been celebrated for playing through injuries – including blows to the head. Even today, some players and coaches talk about athletes “[getting their bell rung](#)”, and the admonition to “shake it off” and keep playing.

In part as a result of this persistent culture, a true reflection of the frequency of concussions in youth sports has been difficult to attain. In fact, one [study](#) found that fewer than half (47%) of American high-school football players who said they had sustained a concussion during the season had actually reported it to someone.

This [reluctance to report](#) was on display in Canada in 2013 with the tragic death of Ontario teenager Rowan Stringer, a 17-year-old female rugby player [who died after suffering multiple concussions](#) in less than a week. She communicated her suspicion that she may have a concussion via text with a friend but ultimately did not see a doctor. There were no legal requirements for how her case should have been handled after she sustained the first impact.

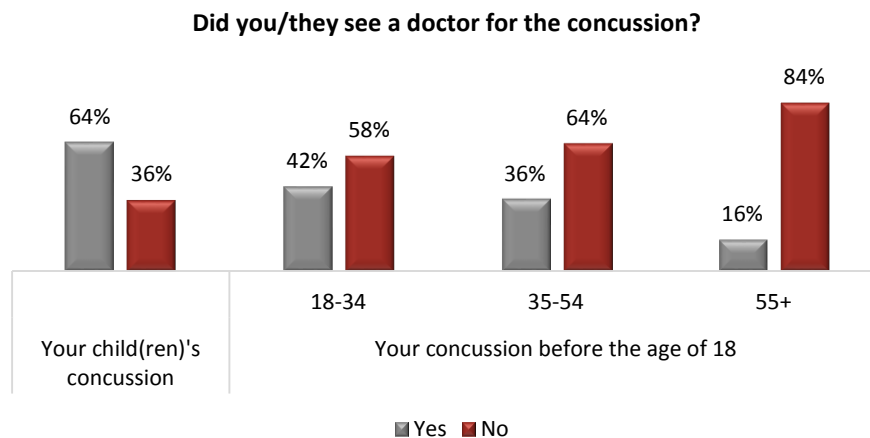
The results of this ARI study provide additional evidence of this lack of reporting, but suggest that Canadians are becoming more likely to take a potential concussion seriously.

Among those who had a concussion playing youth sports, 58 per cent say a responsible adult was aware of it, but fewer than one-in-three (32%) say they saw a doctor for it. And consider the generation gap in how Canadians say their concussions were dealt with when they were minors:

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl

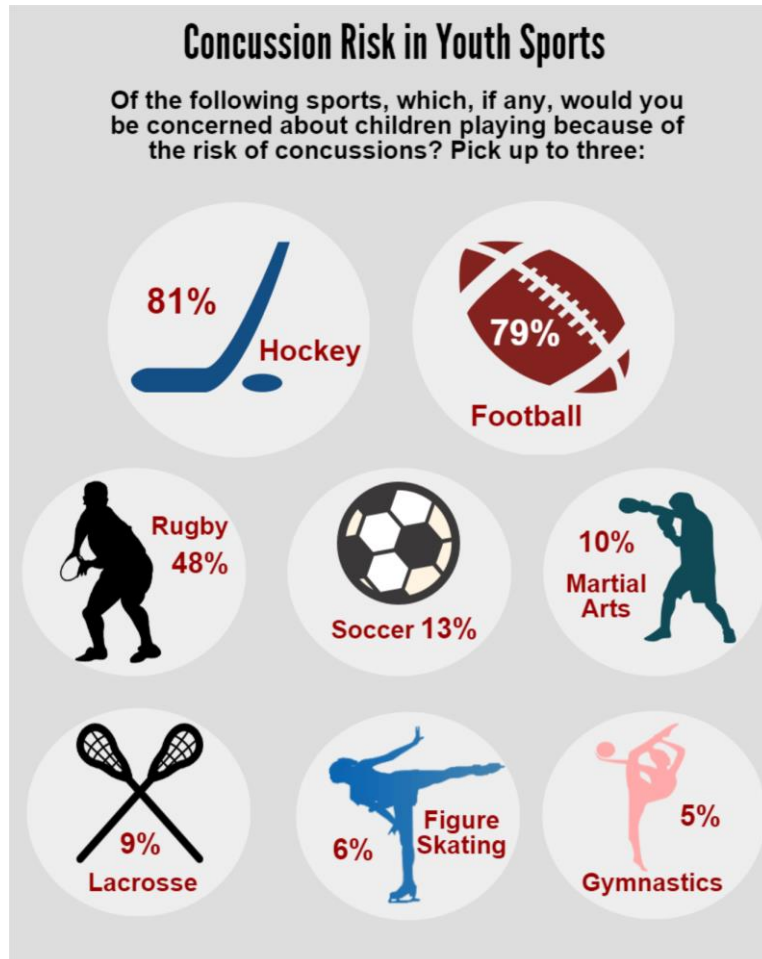
- More than two-thirds (68%) of those 18-34 years old say a responsible adult was aware of their injury when it happened, compared to 61 per cent of those ages 35–54 and fewer than half (45%) of those 55 and older
- Older Canadians are also much less likely to have seen a doctor for a concussion in their youth than younger Canadians, or parents of kids who play sports as evidenced in the following graph:



Perceptions of how the problem has been handled

Research suggests that concussions in young athletes are of particular concern because of children's still-developing brains and bodies, which do not absorb traumatic impacts as well as adult bodies do and take longer to recover from such trauma. Physicians have also suggested that young athletes are more at risk of long-term effects of head injuries than older athletes.

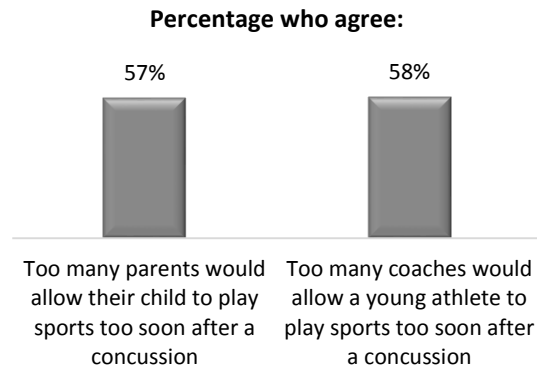
These risks have hit home with many parents, including NBA superstar LeBron James, who said last year that he won't let his kids play football because it isn't worth the health risk. And Canadians appear to share the same concerns. When asked which sports they would be concerned about children playing due to concussion risks, hockey and football topped the list by a wide margin:



Further, when it comes to adequate effort to prevent or mitigate concussions and their effects, there appears to be a perception amongst Canadians that young athletes are facing more health risks than necessary.

- More than half of respondents say too many parents (57%) and coaches (58%) would allow a young athlete to return to play too soon after a concussion

- Fewer than half (43%) of all Canadians surveyed say they would trust a coach or trainer to handle the situation well if their child was concussed during play
- Within the group who have children playing sports currently, trust is considerably higher (57%)
- Nearly half of all Canadians are unsure (49%) if schools in their areas have a good plan in place to prevent concussions. One-third (33%) agree that a good plan does exist
- Opinions are similar when asked about youth leagues operating outside of school: just under half (47%) say they are unsure about policies in these leagues, while 37 per cent say a good plan exists.



Notably, Saskatchewan has the highest level of agreement in the country when looking at its leagues ([see comprehensive tables at angusreid.org](#)). In fact, the Saskatchewan Soccer Association [received national attention](#) last year for its comprehensive concussion policy, while the Saskatchewan Hockey Association has [implemented return-to-play](#) policy.

Does government have a role to play?

In response to the tragic case of Rowan Stringer, Ontario is now considering adopting "[Rowan's Law](#)", which would be the first concussion-related legislation in Canada. *Rowan's Law*, like the [Zachary Lystedt Law](#) in the U.S., would add mandatory protocols and education to youth sports.

Some of the elements of this legislation include:

- Removal of an athlete from play if a concussion is suspected
- Return-to-learn and return-to-play protocols for youth athletes with concussions.
- Requiring medical clearance of concussed athletes before they return to play.
- Concussion education for young athletes, parents and coaches.

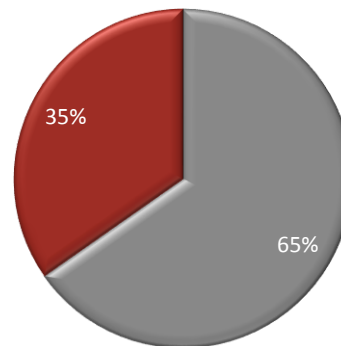
Broadly speaking, Canadians do feel their provincial governments ought to be more involved:

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl

Thinking about the role of government in youth sports, which statement comes closest to your own point of view?

- Provincial governments need to step in with laws/regulations to better protect young athletes from concussions
- There's no need for government oversight; coaches and parents are doing well enough protecting young athletes from concussions

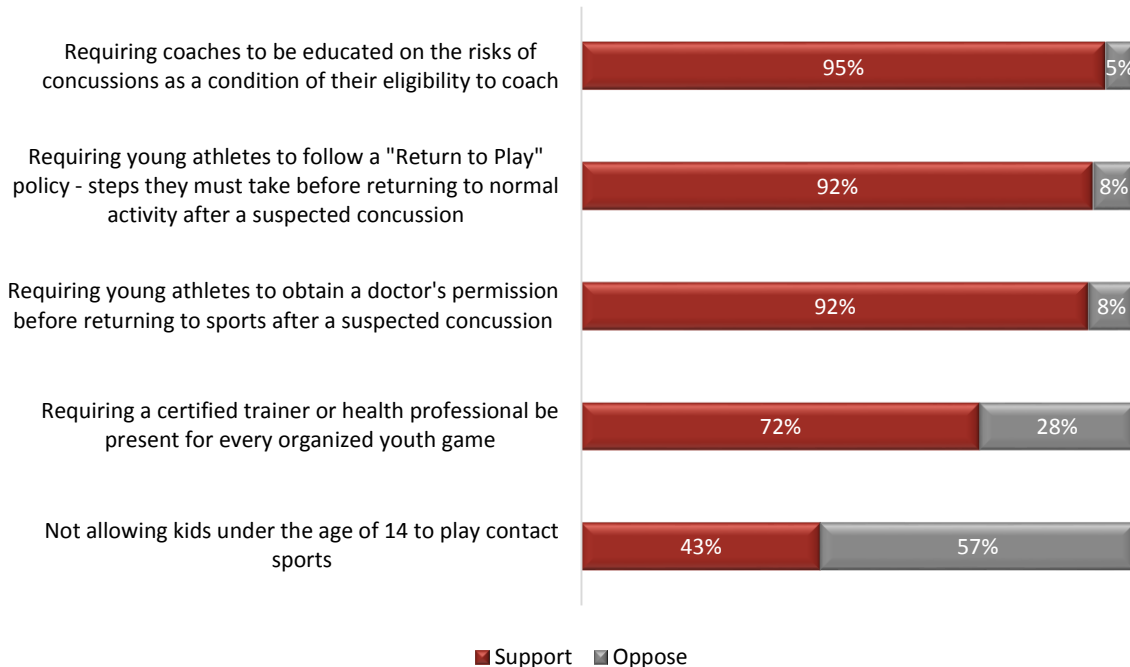


That said, some notable findings emerge:

- Those who have personally had a concussion while playing sports (in their youth or as an adult) are actually less likely to say the provincial government needs to step in than those who have not had a concussion (59% versus 67%, respectively)
- Parents of athletes' support for government regulation is virtually identical regardless of whether their child has had a concussion playing sports (66% support) or not (68% support).

When asked about specific policies that could be put in place to mitigate concussion risk, Canadians are largely on board with a number of different options, as seen in the following graph:

Would you support or oppose each of the following policies?



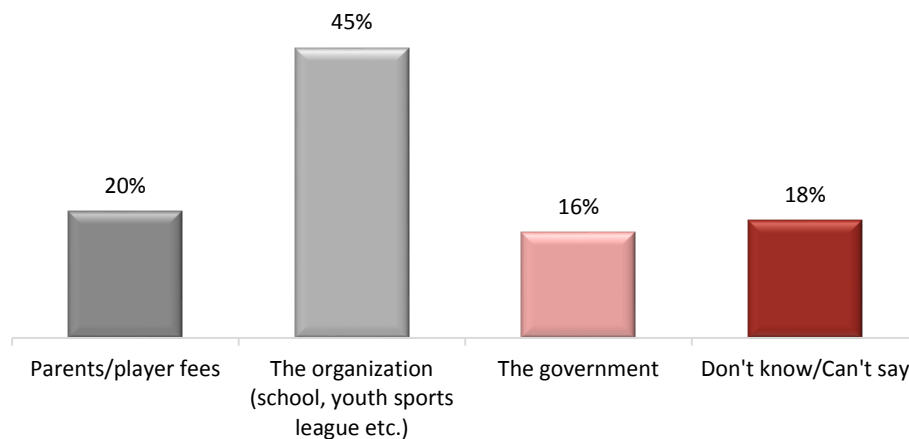
On the issue of requiring a health professional to be present for all organized youth games, a follow-up question asked respondents about costs.

While most Canadians feel government has a role in protecting young athletes from concussions, fewer than one-in-five (16%) say the government should be responsible for covering the cost of a health professional on-site at games. Instead, the largest group puts the responsibility on whatever group is organizing the competition, as seen in the following graph:

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl

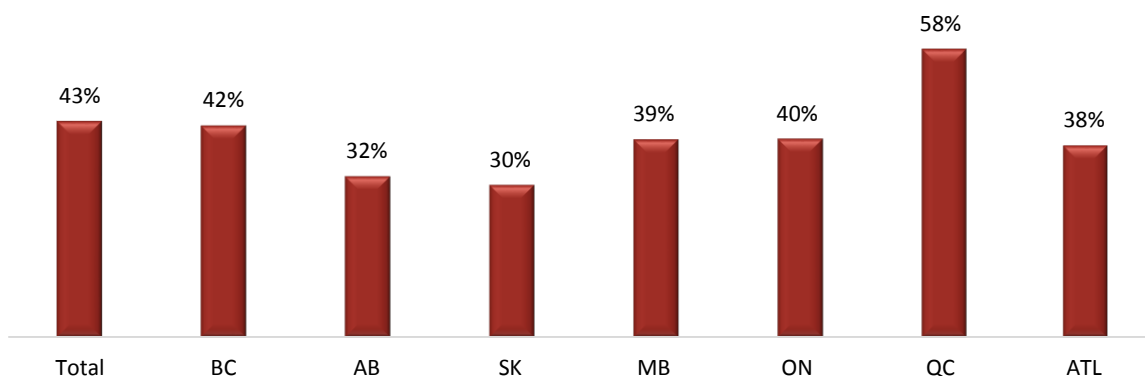
If a certified trainer or other health professional were required to be onsite for organized youth games, who should be most responsible for covering those costs?



The Angus Reid Institute also put a more stringent option to respondents: banning contact sports for children under 14. On this, the majority (57%) are firmly opposed, with the highest level of disagreement coming from young women, nearly two-thirds (63%) of whom are against this idea. Opposition is also this high (63%) among Canadians who played youth sports themselves.

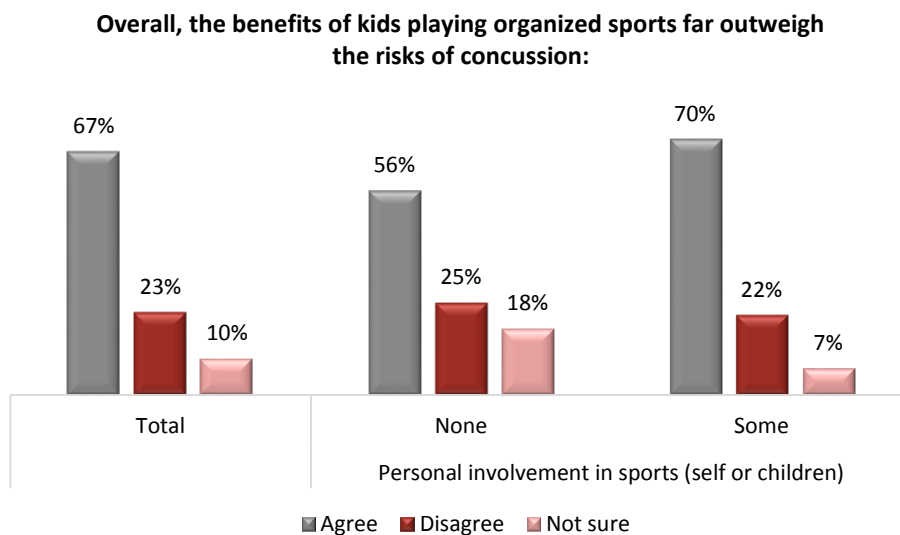
That said, a significant segment of two-in-five (43%) do agree with keeping kids under 14 out of contact sports, albeit with considerable differences depending on region. In Quebec, 58 per cent agree, compared to 42 per cent in British Columbia and even fewer in other regions:

Percentage who support "not allowing kids under the age of 14 to play contact sports":



Despite concerns, most say benefits of sports outweigh risks

For all the attention concussions in sports have been receiving – and for all the concerns respondents voice about them in this survey – it should be noted that more than two-thirds (67%) of Canadians say that the benefits of sports “far outweigh” the risks of concussions and associated long term health effects.



On this statement, younger women are most likely to “strongly agree” (36% do so), while older Canadians (those aged 55 or older) – both women and men – are most likely to “strongly disagree,” though just 14 per cent in each group do so ([see comprehensive tables at angusreid.org](https://angusreid.org)).

Notably, parents who have had a child deal with a concussion are no less likely to agree that the benefits outweigh the risk of sports participation. 70 per cent of parents who have had this experience agree, compared to 69 per cent of parents whose children have not dealt with such an injury.

*The **Angus Reid Institute (ARI)** was founded in October 2014 by pollster and sociologist, Dr. Angus Reid. ARI is a national, not-for-profit, non-partisan public opinion research organization established to advance education by commissioning, conducting and disseminating to the public accessible and impartial statistical data, research and policy analysis on economics, political science, philanthropy, public administration, domestic and international affairs and other socio-economic issues of importance to Canada and its world.*

Select summary tables follow. For comprehensive tables by age, gender, region, and other demographics, [click here](#).

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl

Please tell us whether you agree or disagree with each of these statements: “If my child got a concussion playing sports, the coaches/trainers would handle the situation well”				
(weighted sample sizes)	Total (1522)	Have children in sports		
		Yes, currently (181)	Yes, in the past (433)	No (909)
Strongly agree	10%	19%	10%	8%
Moderately agree	33%	38%	38%	29%
Moderately disagree	16%	19%	17%	15%
Strongly disagree	3%	3%	3%	4%
Not sure	38%	22%	32%	44%

Thinking about the role of government in youth sports, which statement is closest to your own point of view?			
(weighted sample sizes)	Total (1522)	Have had a concussion at some point in their lives	
		Yes (293)	No (1229)
Provincial governments need to step in with laws/regulations to better protect young athletes from concussions	65%	59%	67%
There's no need for government oversight; coaches and parents are doing well enough protecting young athletes from concussions	35%	41%	33%

Thinking about the role of government in youth sports, which statement is closest to your own point of view?				
(weighted sample sizes)	Total (1522)	Have children who have had a concussion		No children in sports (909)
		Yes (132)	No (481)	
Provincial governments need to step in with laws/regulations to better protect young athletes from concussions	65%	66%	68%	64%
There's no need for government oversight; coaches and parents are doing well enough protecting young athletes from concussions	35%	34%	32%	36%

Please tell us whether you agree or disagree with each of these statements: “Overall, the benefits of kids playing organized sports far outweigh the risks of concussion”			
(weighted sample sizes)	Total (1522)	Personal involvement in sports (self or children)	
		Some (1151)	None (371)
Strongly agree	29%	33%	18%
Moderately agree	38%	38%	38%
Moderately disagree	14%	14%	12%
Strongly disagree	9%	8%	13%
Not sure	10%	7%	18%

Please tell us whether you agree or disagree with each of these statements: “Overall, the benefits of kids playing organized sports far outweigh the risks of concussion”				
(weighted sample sizes)	Total (1522)	Have children who have had a concussion		No children in sports (909)
		Yes (132)	No (481)	
Strongly agree	29%	33%	29%	29%
Moderately agree	38%	37%	40%	37%
Moderately disagree	14%	17%	17%	12%
Strongly disagree	9%	10%	8%	9%
Not sure	10%	3%	6%	13%

Would you support or oppose each of the following policies? “Not allowing kids under the age of 14 to play contact sports”			
(weighted sample sizes)	Total (1522)	Played sports as a child	
		Yes (819)	No (703)
Strongly support	17%	14%	20%
Moderately support	26%	23%	30%
Moderately oppose	34%	35%	33%
Strongly oppose	23%	28%	17%

MEDIA CONTACT:

Shachi Kurl, Senior Vice President: 604.908.1693 shachi.kurl@angusreid.org @shachikurl