

IMPROVING CONCUSSION MANAGEMENT IN CANADIAN YOUTH

Summer 2016 Research Project

Concussion awareness and oversight is low in Canada

<p>Definition</p>	<ul style="list-style-type: none"> • An injury affecting brain function, often caused by a blow to the head <ul style="list-style-type: none"> - In medical terms a pathophysiological process affecting the brain, induced by biomechanical forces - Invisible, no external evidence of injury
<p>Canadian Landscape</p>	<ul style="list-style-type: none"> • Over 155,000 Canadians are estimated to have suffered a concussion in 2014 • 2016 - First Canadian law on management of youth concussions passed in Ontario • Budget 2016 - Allocation for Pan-Canadian Concussion Strategy - focus on students and athletes
<p>Problem</p>	<ul style="list-style-type: none"> • Significant under reporting of concussion in Canadian youth due to: <ul style="list-style-type: none"> ✓ Lack of awareness about concussion (including causes, and symptoms) amongst primary stakeholders ✓ Lack of proper guidelines on how to detect concussions and how to follow up with treatment ✓ Unclear rules and tips on prevention



Despite expected under reporting, the number of concussions in Canadian youth is rising dramatically

TRAUMATIC BRAIN INJURY (TBI): an alteration in brain function caused by an external force

- 400x more common than HIV/AIDS

1 in 5 sport related injuries are concussions

Heads-up on sport-related brain injuries

Over the last 5 years

The number of emergency department (ED) visits for sport-related brain injuries in Ontario and Alberta has increased by

↑ **46%**

The increase has been highest in the younger age groups

↑ **78%**
age 0-9

↑ **45%**
age 10-17

2014-2015

Of all brain injuries seen in Ontario and Alberta EDs, more than a quarter were sport-related



Sport-related brain injuries

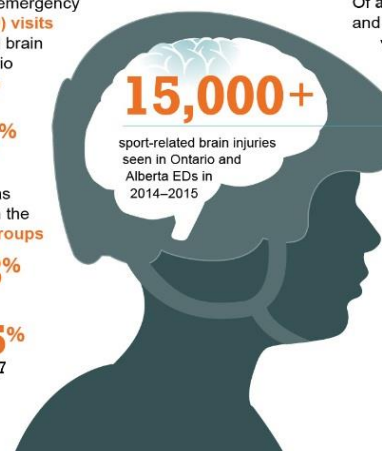
Majority concussion-related



More males than females



Highest proportion of injuries among 10- to 14-year-olds



Canadian Institute for Health Information, 2016, Retrieved from <https://www.cihi.ca/en/types-of-care/specialized-services/heads-up-on-sport-related-brain-injuries>

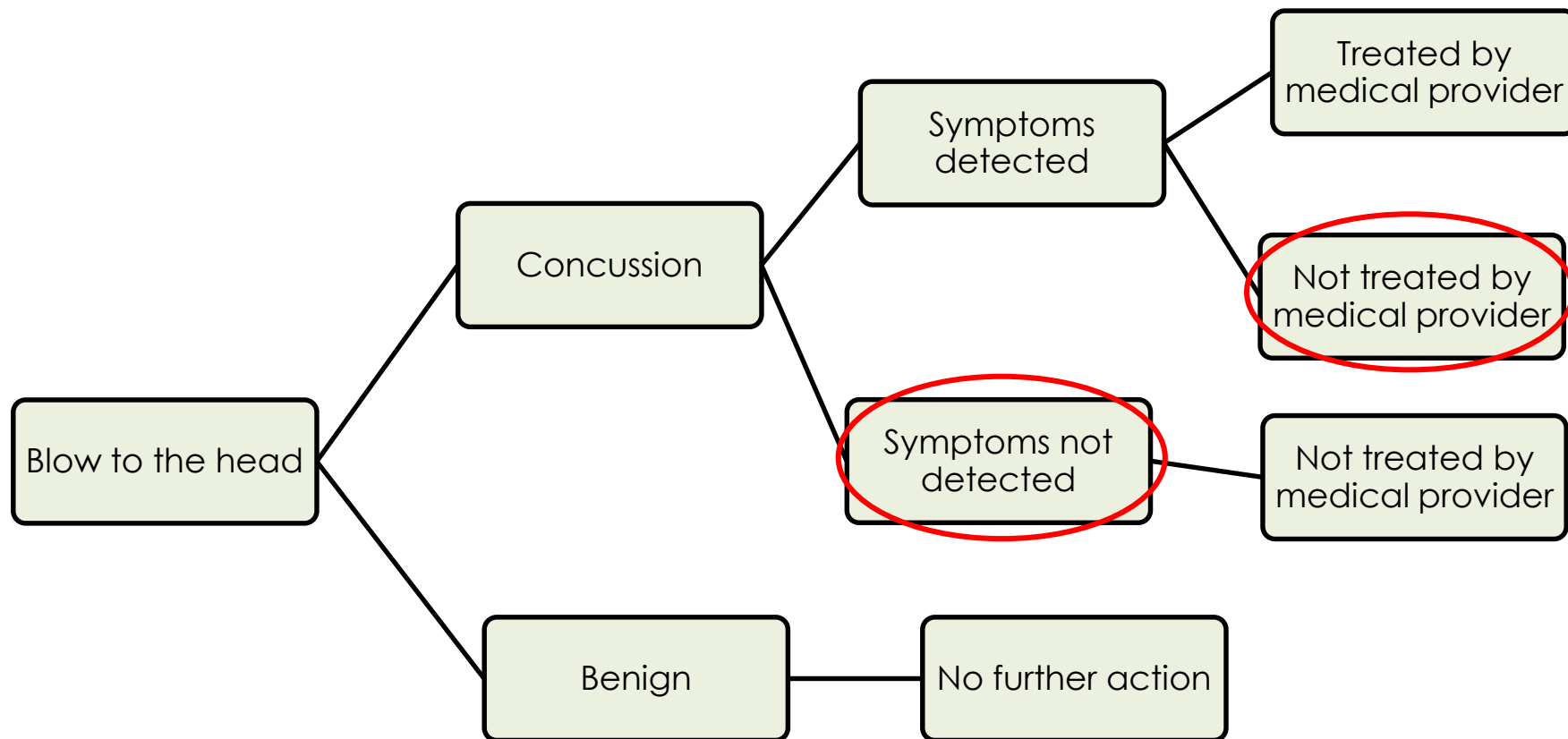
HALF A MILLION
PEOPLE IN ONTARIO LIVE WITH ACQUIRED BRAIN INJURY

If everyone with an ABI joined hands, the line would stretch from Toronto to Montreal.

Sources: OBIA Impact Report, 2012; National population health study of neurological conditions, 2011; Center for Disease Control; Colantonio et al, ABI Dataset Report, 2009; Levy, Bayley et al, Access to concussion care in Ontario, 2012.

Ontario Neurotrauma Foundation, 2015, Retrieved from http://onf.org/system/attachments/334/original/ONF_EN_online.pdf

The journey of a concussion patient



Our focus is on the two decision points where there is often an error – either a wrong diagnosis or a lack of treatment

There is an opportunity for PHAC to improve concussion management amongst youth by achieving three objectives

WHAT THE WEBSITE HOPES TO ACHIEVE

Increase awareness

Increase detection

Provide resources



1

Detail causes & results of concussion

2

Educate stakeholders to recognize concussion symptoms

3

Connect stakeholders with tools and organizations

The mock website created by BEAR be found at: <http://concussioninyouth.wixsite.com/uoff>

Context

Task

Website

The website is tailored to, and will have specific impacts on, each stakeholder

YOUTH

- Recognize that not reporting injury is harmful personally and for the team
- Understand that missing one game is better than missing the season
- Adopt a culture of safety first in sports

PARENTS AND TEACHERS

- Recognize that repeat concussions can result in permanent brain damage
- Understand “return-to-play” and “return-to-learn” protocols

COACHES

- Understand “return-to-play” and “return-to-learn” protocols
- Recognize that when in doubt then they should take the athlete out of play
- Ensure that athletes follow safety rules

ALL STAKEHOLDERS

- Identify concussion symptoms
- Recognize the importance of reporting a concussion
- Understand that recovery from a concussion is a gradual process

Portal for youth:

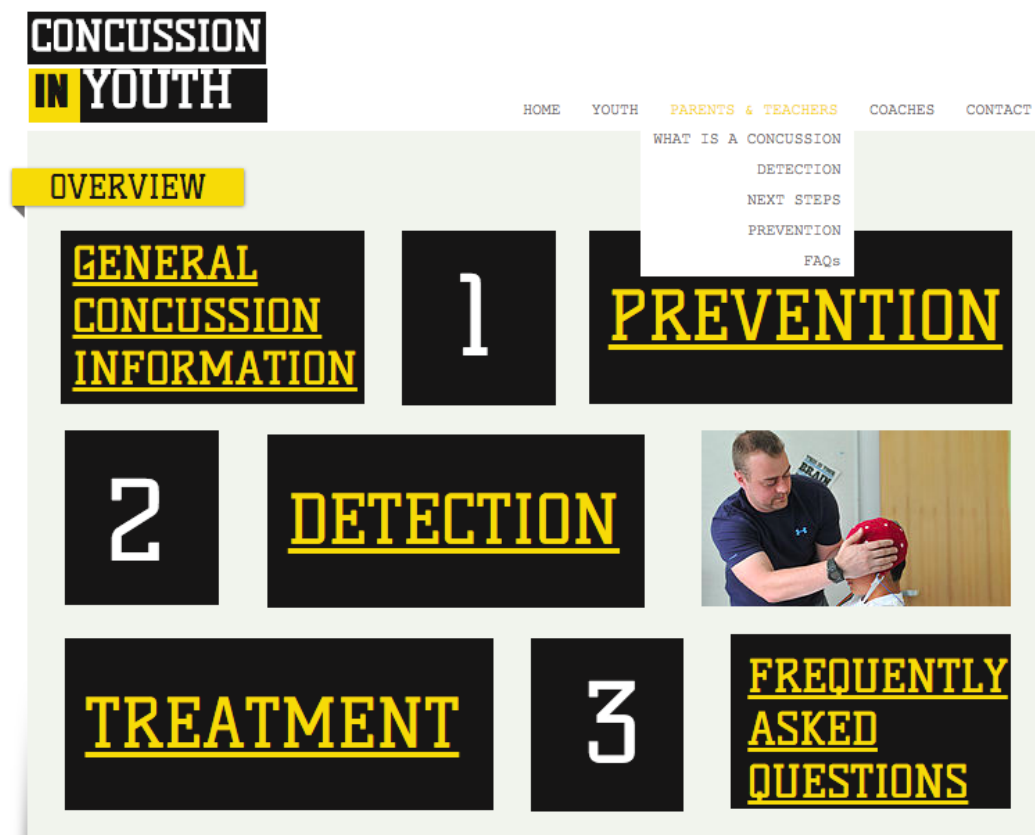
an engaging, interactive platform aimed to help a child notice and report a possible concussion



*This is a screenshot from our mock webpage:
<http://concussioninyouth.wixsite.com/uoft/youth>

Portal for parents and teachers:

informational content to help stakeholders care for a concussed child from detection to recovery

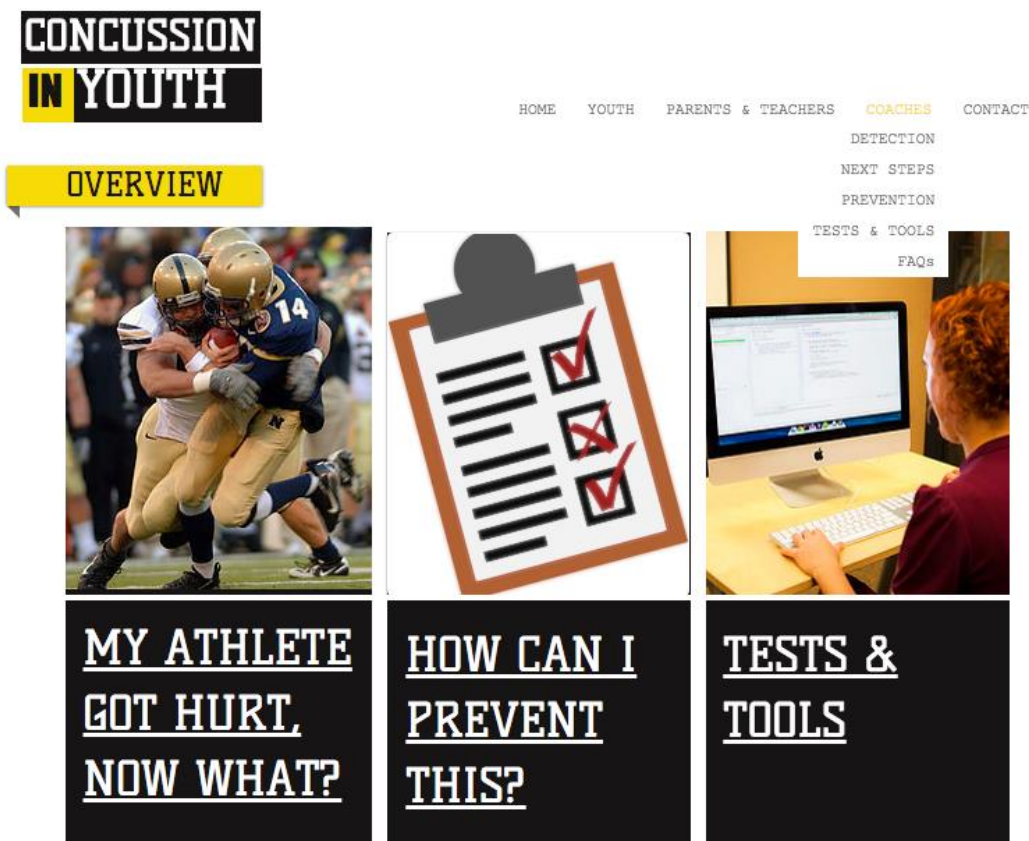


*This is a screenshot from our mock webpage:
<http://concussioninyouth.wixsite.com/uoft/parents-teachers>



Portal for coaches:

details on next steps after a suspected concussion, along with tools and resources on concussion management



*This is a screenshot from our mock webpage:
<http://concussioninyouth.wixsite.com/uoft/coaches>



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