



UNIVERSITY OF CALGARY
FACULTY OF KINESIOLOGY
Sport Injury Prevention Research Centre

SHRED Concussions

Partnering for player safety: Collaborative research with Ringette Canada for concussion prevention

SIRC Concussion in Sport Symposium 2024



PLAY SMART
PLAY SAFE





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Importance of Collaborations



Previous Research

University & U16AA ringette compared to University & U15AA female ice hockey

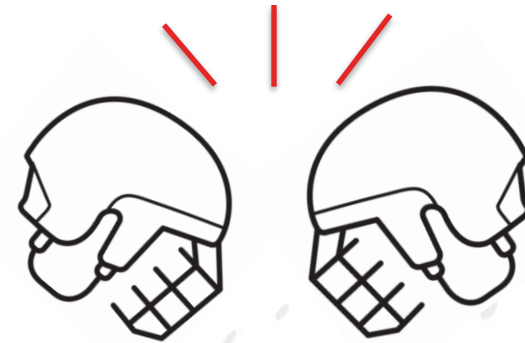
Bodychecking

- University level:
 - 98% higher rate
 - 22% penalized
- U16AA level:
 - 160% higher rate
 - 18% penalized



Head contacts

- University level:
 - 68% higher rate
 - 14% penalized
- U16AA level:
 - 89% higher rate
 - 6% penalized



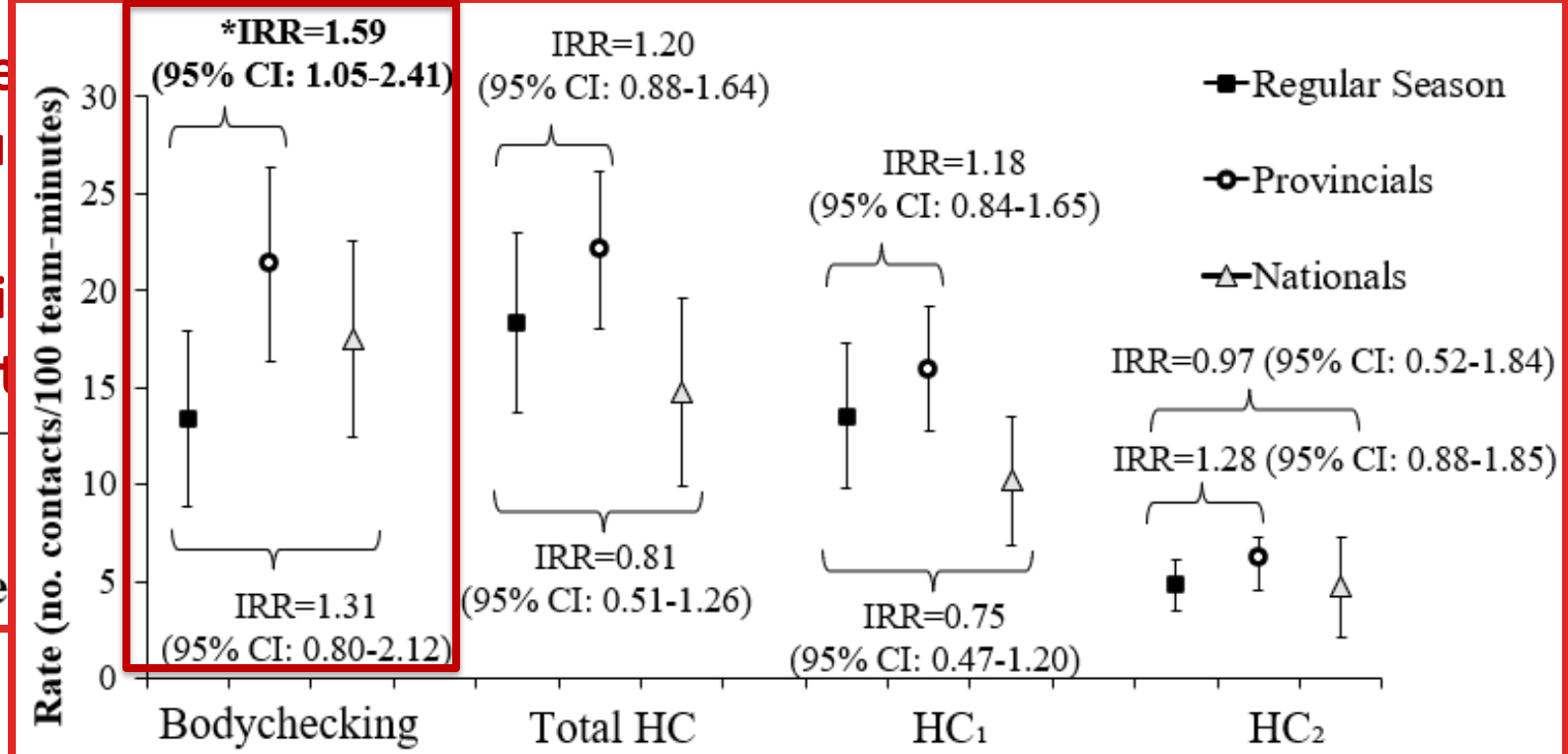
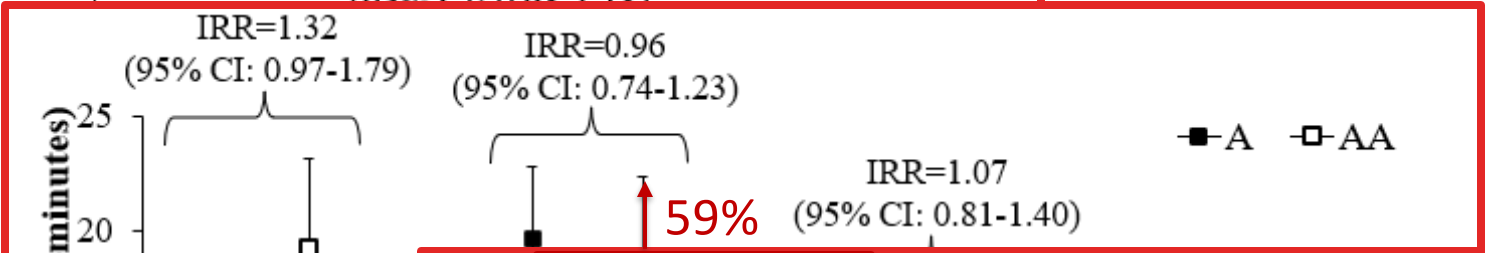
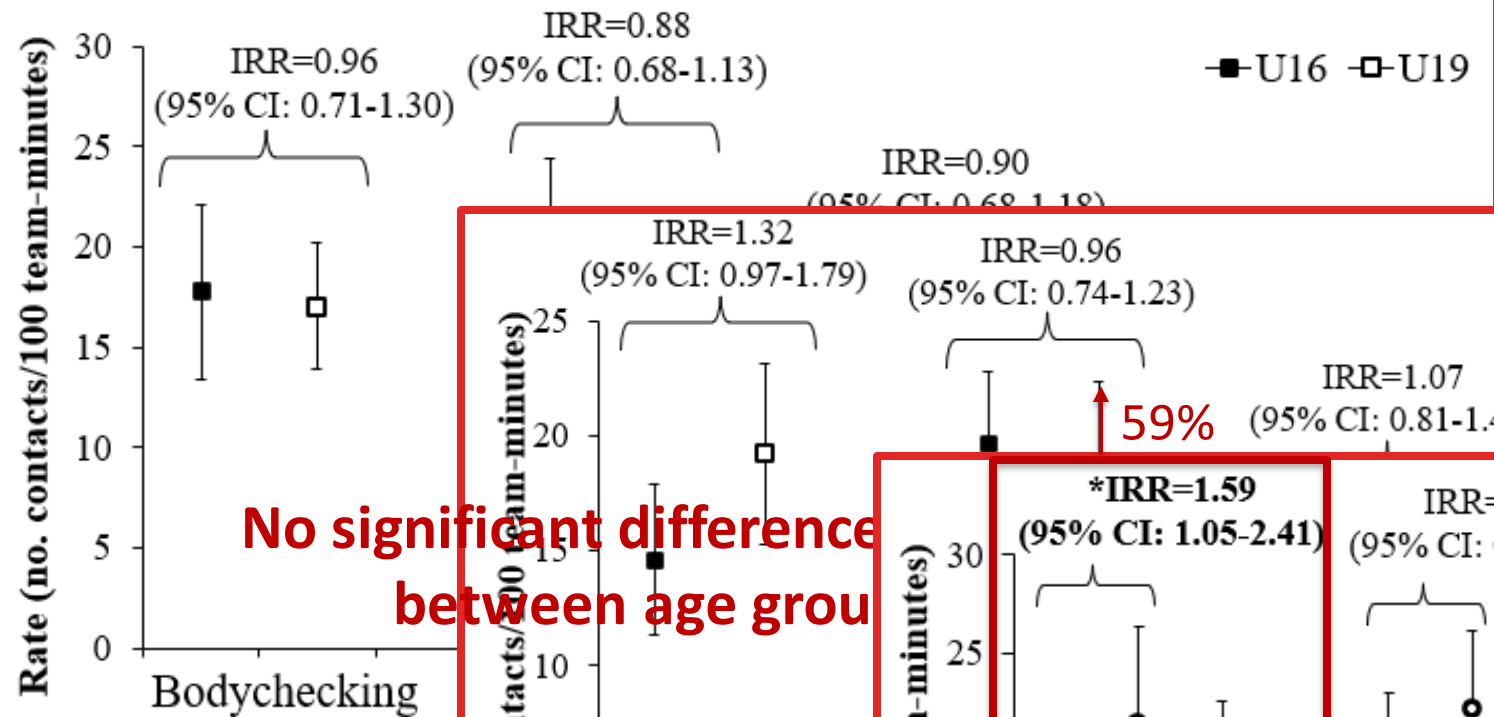
Previous Research

University & U16AA ringette compared to University & U15AA female ice hockey

Suspected Injuries & Concussions

- University & U16AA level:
 - 3 times higher rate of suspected injuries and concussions
- Bodychecking was the main mechanism of injury
- Indirect head contacts following a bodycheck was the main mechanism of concussion



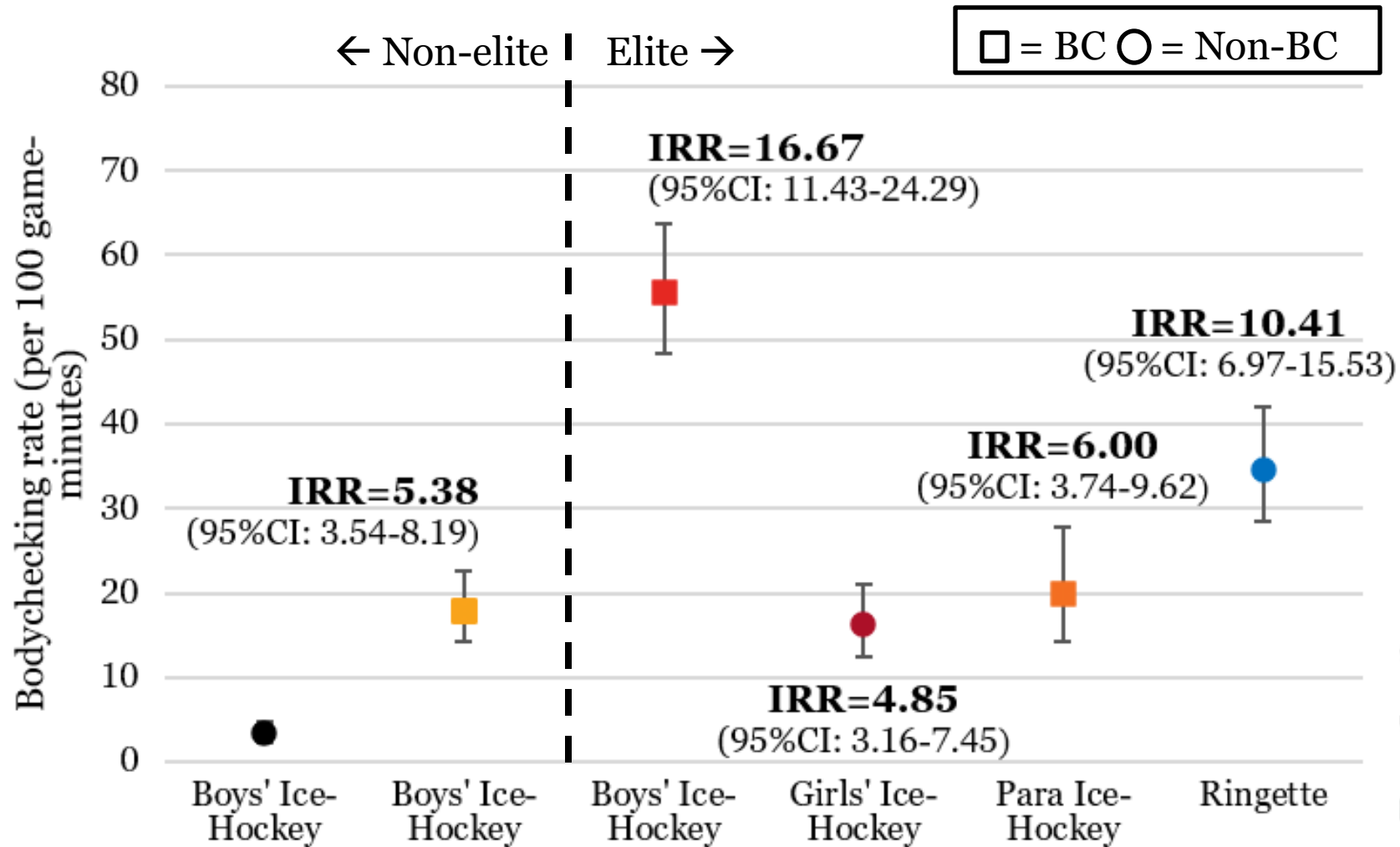


No significant difference between age groups

No significant difference between age groups

Bodychecking and Head Contact Comparisons

All Ice Sports – Bodychecking Rates



Rates of Bodychecking (BC)

Notes. All IRR compared to Non-elite non-BC Boys' Hockey; **indicates significant finding**



All Ice Sports – Head Contact Rates

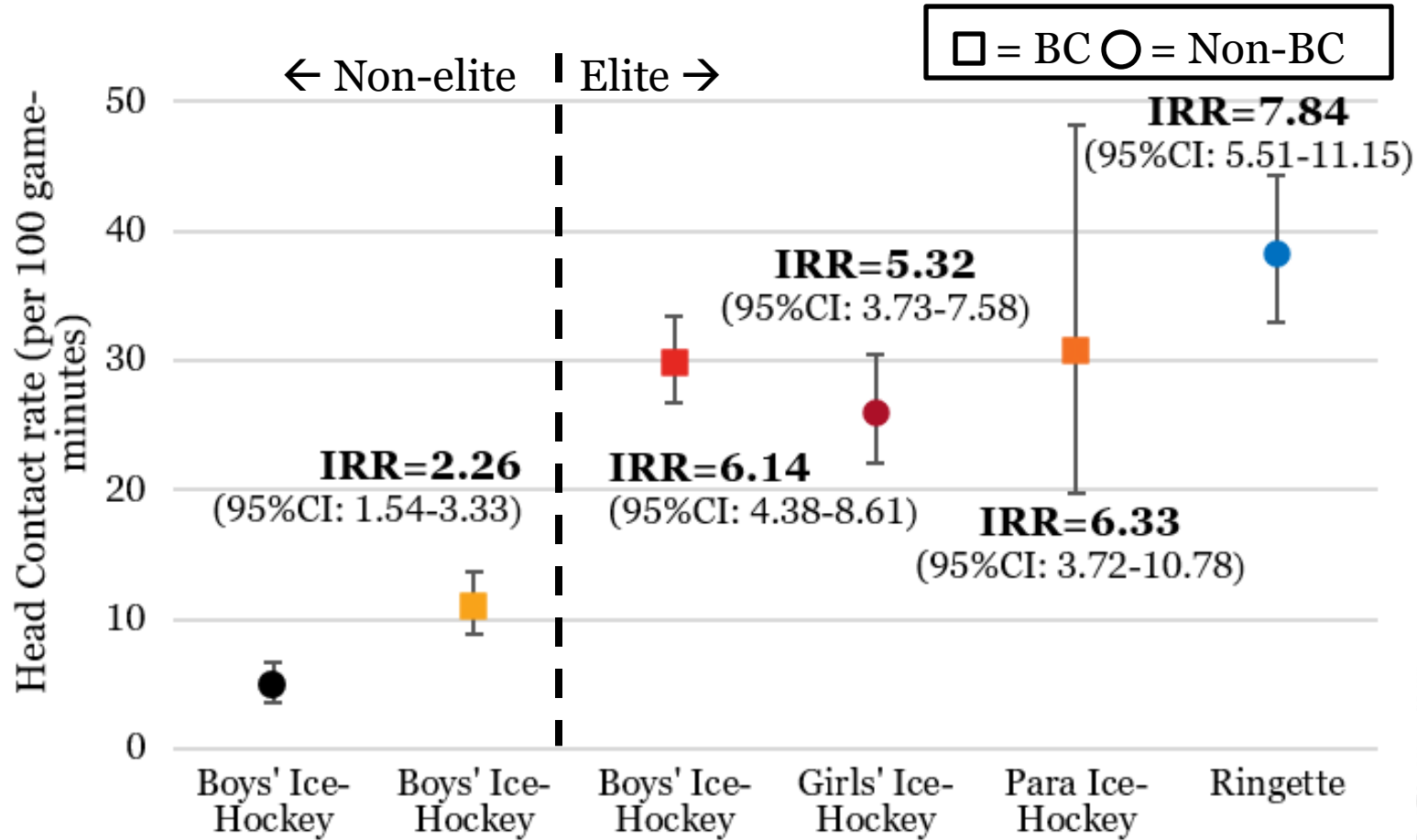
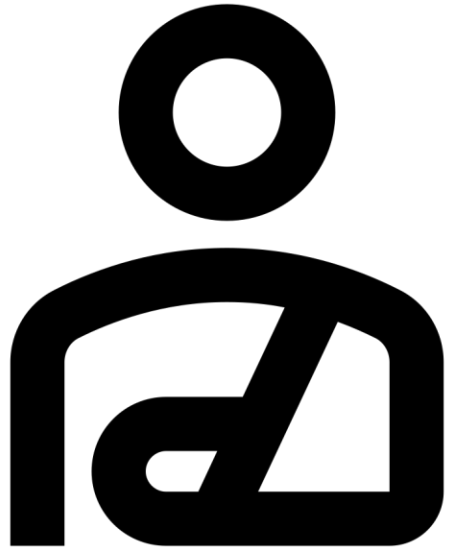


Figure 2. Rates of Head Contacts (HC)

Notes. All IRR compared to NE non-BC Boys' Hockey; **indicates significant finding**



Injury Rates



All injuries: **IR = 35.88/100 players/season**
(95%CI: 27.45-46.91)



Concussions: **IR = 12.94/100 players/season**
(95%CI: 8.42-19.89).



Injury Locations

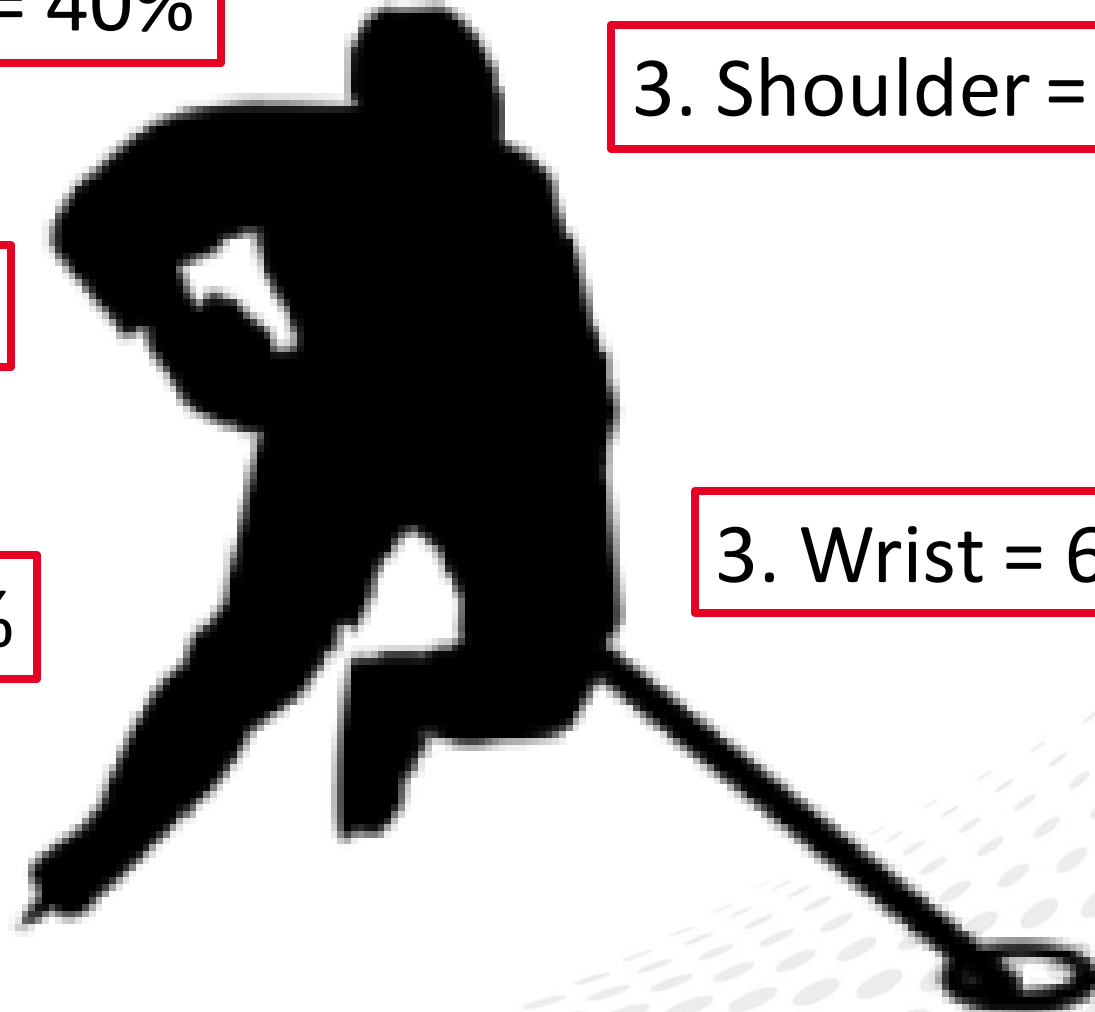
1. Head & Neck = 40%

3. Shoulder = 6%

3. Back = 6%

2. Knee = 23%

3. Wrist = 6%



Ongoing Projects



Neuromuscular training evaluation

Mouthguard evaluation



Shoulder pad evaluation

Referee training evaluation



So what?

- Ringette is an area with very little research previously done, so we are working to close this gap
- This research isn't possible/relevant without the collaborations with Ringette Canada and the players involved in the sport



Acknowledgements

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- Ringette Canada
- SIPRC Youth Advisory Committee (YAC)

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