



# **Exploring Canadian Career Firefighters' Understanding of the Return-to-Work Process after Musculoskeletal Injuries**

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# Background: Factors Increasing Injury Risk

Dangerous and high stress work

Unpredictable work environments

Physically demanding work



# Background: The Injury Stats



## United States Firefighter Injuries in 2020

Richard Campbell and Ben Evarts  
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**64,875** estimated injuries  
in 2020

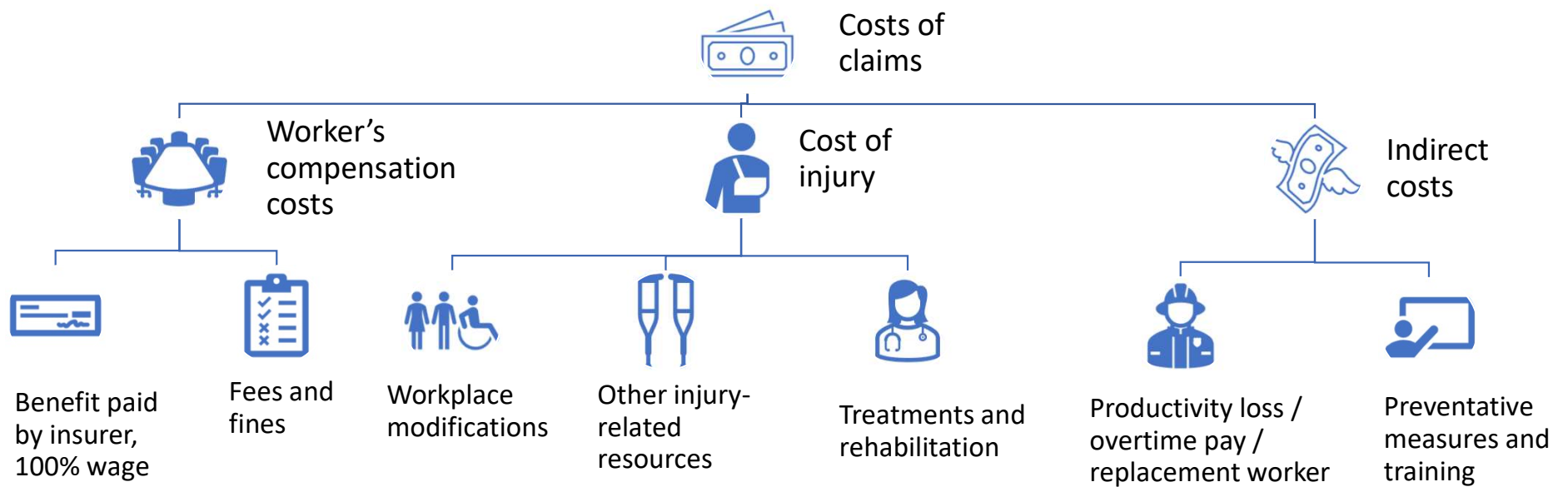
**48%** of injuries were  
musculoskeletal in 2020

**17% - 30%** of injuries  
resulted in lost time  
between 2016 - 2019

## Background: The Costs of Injuries

- In 2012, Calgary firefighter injuries cost **\$555,955**; and **77%** of claims were sprain/strain related
- U.S. firefighter injuries estimated to cost **1.6 – 5.9 billion dollars** annually
- **Employer pays all costs for work-related injuries**

# Background: The Costs of Injuries



## Background: Rationale



Prevention is great, but difficult for firefighter injuries



Firefighter injuries are inevitable



Focus on effective return to work strategies



Promote early and safe return to work

## Purpose

*To explore what career firefighters understand about return-to-work (RTW) procedures in their workplaces, and what career firefighters believe the facilitators and barriers to return-to-work are*

A firefighter in full gear, including a helmet with the number '5' and a harness, is walking through a smoky, debris-filled environment. The scene is dimly lit, with a blue tint. The firefighter is wearing a helmet with the number '5' and a harness. The background is filled with smoke and debris, suggesting a fire scene.

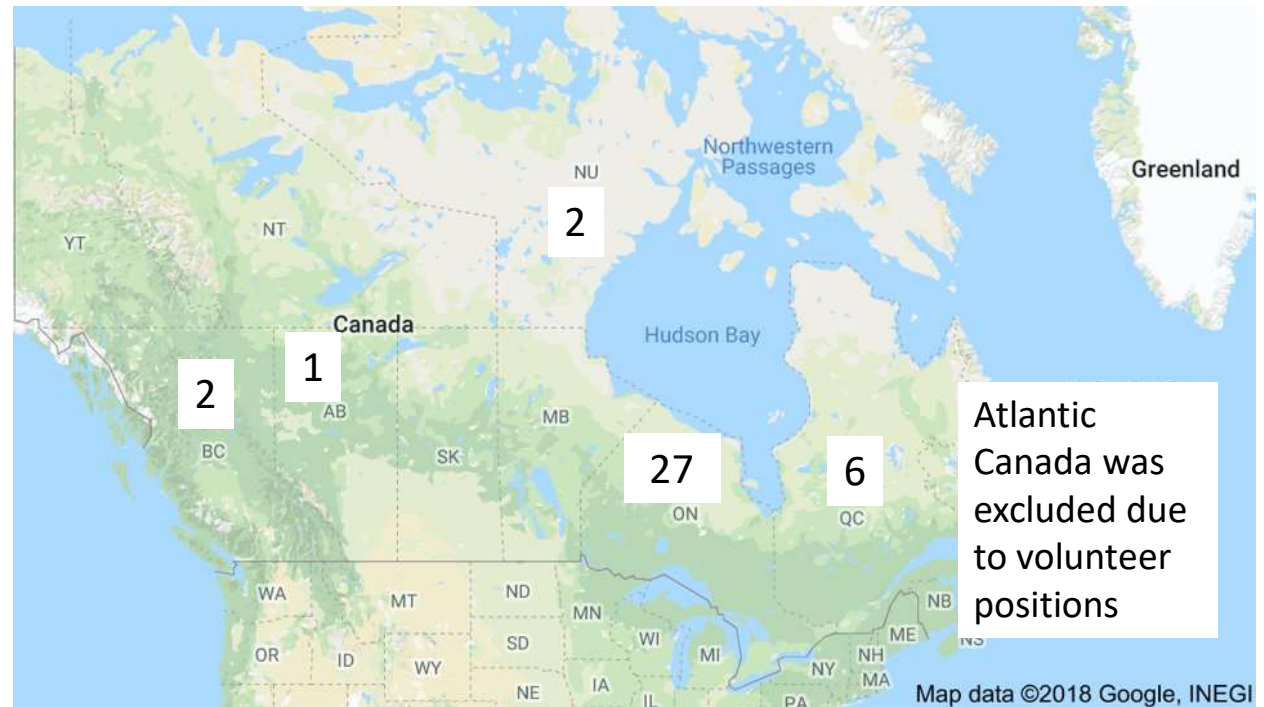
# Methods



# Methods: Participants

## 38 participants

- Different career firefighter ranks
- Rural and city departments
- 33 men, 5 women



# Methods: Data Collection and Analysis

## Data collection

- Semi-structured interview

## Analysis

- Qualitative description methods
- Two researchers performed the analysis
  - Inductive coding
  - Thematic analysis

A firefighter in full gear, including a helmet with the number '5' and a harness, is walking through a smoky, debris-filled environment. The scene is dimly lit, with a blue-tinted overlay. The firefighter is in the foreground, looking towards the camera. The background shows a large, dark structure, possibly a building, with smoke rising from it.

# Results

# Results: Themes



1. Variation in RTW knowledge



2. Access to treatment



3. Meaningful and suitable modified work



4. Pressures to RTW too soon



5. Physical demands make RTW more difficult

# Theme 1: Variation in the return-to-work process knowledge among firefighters

## Theme 1: Variation in the return-to-work process knowledge among firefighters

- 31 of 38 participants had some awareness of the RTW process in their department
  - All 31 firefighters mentioned that modified work could be available
  - Less aware of medical documentation details required, stakeholder involvement in the process and interventions that were used to promote return-to-work

## Theme 2: Accessible medical resources and treatments for the recovery of an injury

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*“He didn't ask me, you know, to try to work hard in front of him, you know, by just climbing anything. He did ask me nothing. He didn't ask me to pull some weights or anything like that. He just said, do you feel good? Okay, go back to work.”*

*“We are limited with how much coverage we have for things like physiotherapy, or massage, you know? That, to me, is the biggest hindrance.”*



## Theme 2: Accessible medical resources and treatments for the recovery of an injury

*“In [rural communities], it’s lack of medical resources. Many of my staff did not have a family doctor because there are not enough family doctors in [our town]. Also, the physiotherapy and occupational therapy assets in [our town] are limited. So, access to those is a bit of an impediment. Lack of a comprehensive wellness plan within the corporation for firefighters is also a bit of an impediment.”*

# Theme 3: Modified work must be meaningful and suitable

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*“And that’s where modified work becomes very important for our members and ourselves for making sure that we return to work when we’re ready to work and not injure ourselves further by coming back too early”*

*“Allow them some time at work to be able to do their stretches and do some of their exercises while they’re at work so they can actually get healthy and, you know, become an active member of the department again.”*

## Theme 3: Modified work must be meaningful and suitable

*“They just force you into whatever is available, and he ended up, I mean, going back and forth to [CITY] driving with his bum knee, which is also not the smartest idea, in traffic, back and forth for four or five days a week, ten hour days. And they didn't even really - he sat at a desk. They put him prevention, but he didn't actually do anything.”*

# Theme 4: Pressures to RTW too soon can lead to negative consequences

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*“One of the challenges is to ensure that the employer agrees with us. The unfortunate thing is when we get hurt at work, we're treated just like someone sitting behind a desk. It's that cookie-cutter approach. Oh, we're going to give you eight weeks. Yes, you hurt your back. We'll give you eight weeks of physiotherapy but by that time you should be 100%. The cookie-cutter approach doesn't work for firefighters because our injuries sometimes are more severe than someone who works in an office who's twisted the wrong way or pick up a box of files, as opposed to someone who's carry a 150-pound person out of a window or something like that.”*

## Theme 4: Pressures to RTW too soon can lead to negative consequences

*"I would say there's probably a bit of a stigma around being off work because of an injury. There's kind of the older mentality of just suck it up, you should be able to work through it ... why are you really off with your shoulder - it's just your shoulder, like you should be fine"*

*"I think if any injury in our field to work or anything other than perfect and ready to go is really seen as a weakness"*

# Theme 5: Heavy physical demands of firefighting can make it more difficult to return to work



## Theme 5: Heavy physical demands of firefighting can make it more difficult to RTW

*“Little injuries have more of an effect on us than any other worker I believe, because like a twisted ankle, most people could go in to work and do their job 100%, whereas a twisted ankle prevents me from doing my job even close to 100% if called upon to work in a fire.”*



# Discussion

## Discussion: Recommendations



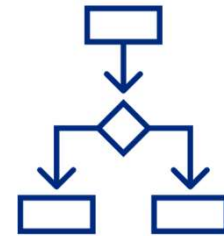
Clearly outlined RTW procedures



Firefighters must be fully recovered AND physically able to perform firefighting tasks



Targeted treatments and better benefit plans

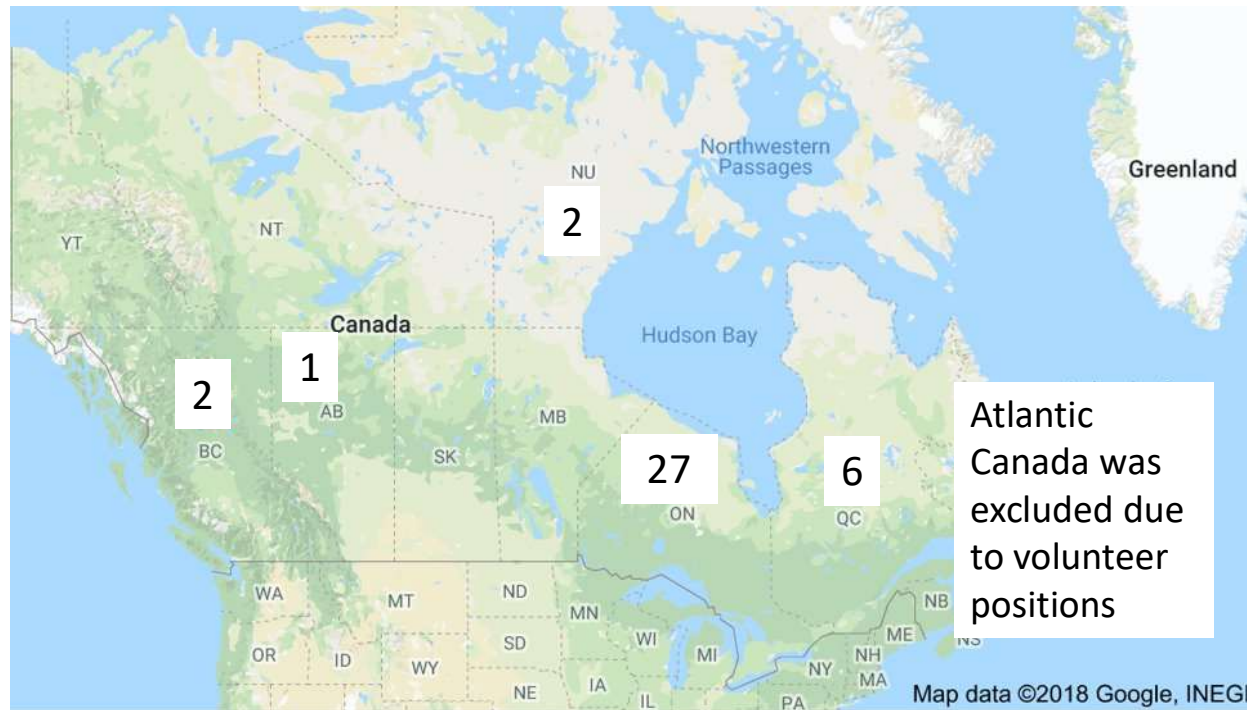


More options for modified work; allowing firefighters to make choices

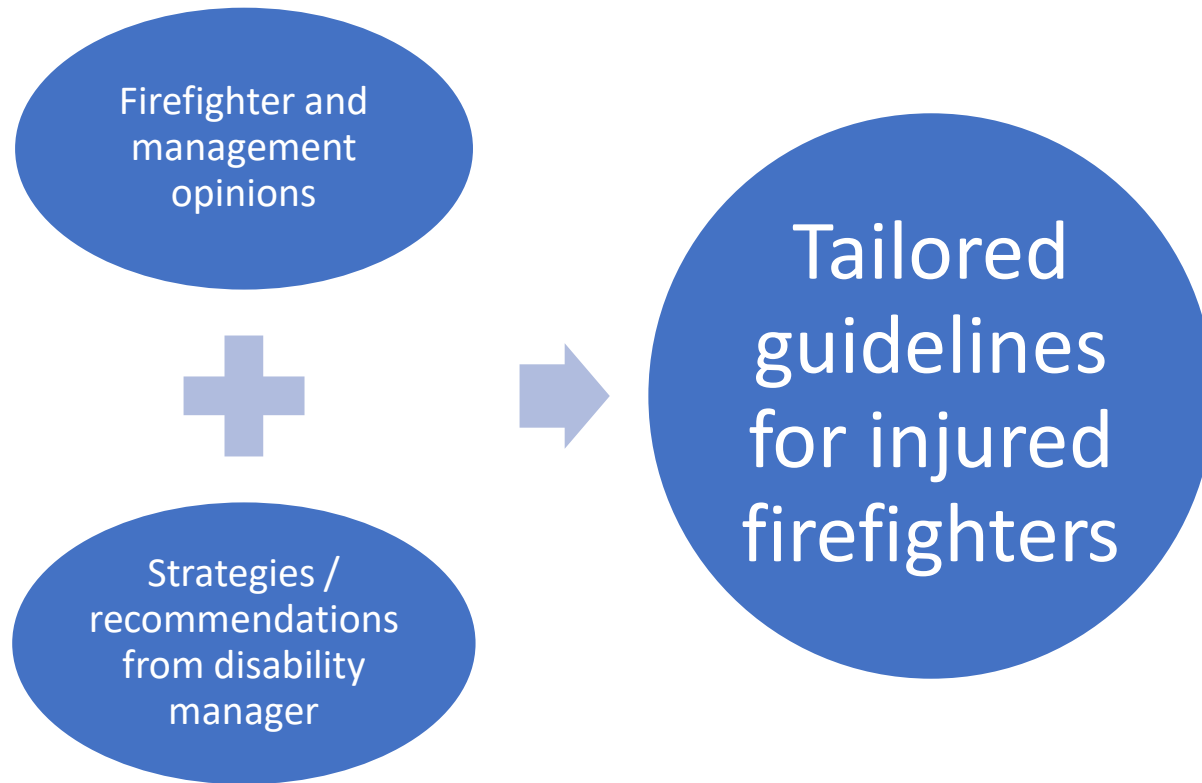


Focus on worker health rather than other factors

# Discussion: Limitations



## Discussion: Future Research





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