

A Structured Review of Health Information on Firefighter Websites

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KEY FINDINGS

- Firefighter websites across Canada lack consistent health resources and resources regarding musculoskeletal injuries.
- There is a need to improve the creation and sharing of injury prevention resources for firefighters.

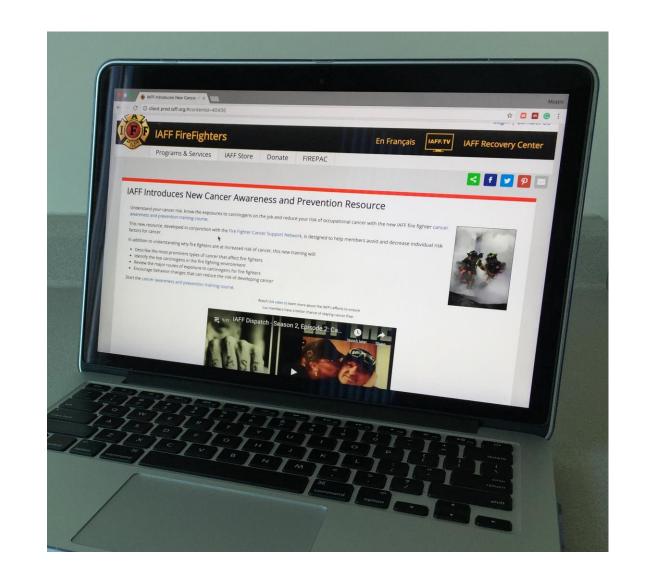
Background

- Firefighting involves many occupational hazards which increase the risk for health issues such as musculoskeletal (MSK) injuries¹, cancer², and PTSD³.
- Due to unique health risks⁴, access to firefighter-specific health information is crucial.
- No previous research has looked at the accessibility of health and safety resources on firefighter employer and union websites.

Objective

- To search and catalogue the information about the health resources available on Canadian firefighter websites.
- To identify gaps in the online health resources available to firefighters in order to guide future electronic resource creation and sharing.

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	Number of Mental Health Resources	Number of Physical Health Resources	Number of Work Health Resources	Total Number of Health Resources
International/ National Websites (n=3)	14	22	4	40
Provincial Websites (n=24)	26	11	12	49
Local Websites (n=282)	19	10	10	39

Table 1: Number and Type of Health Resources Found Across the Three Levels of Firefighter Websites

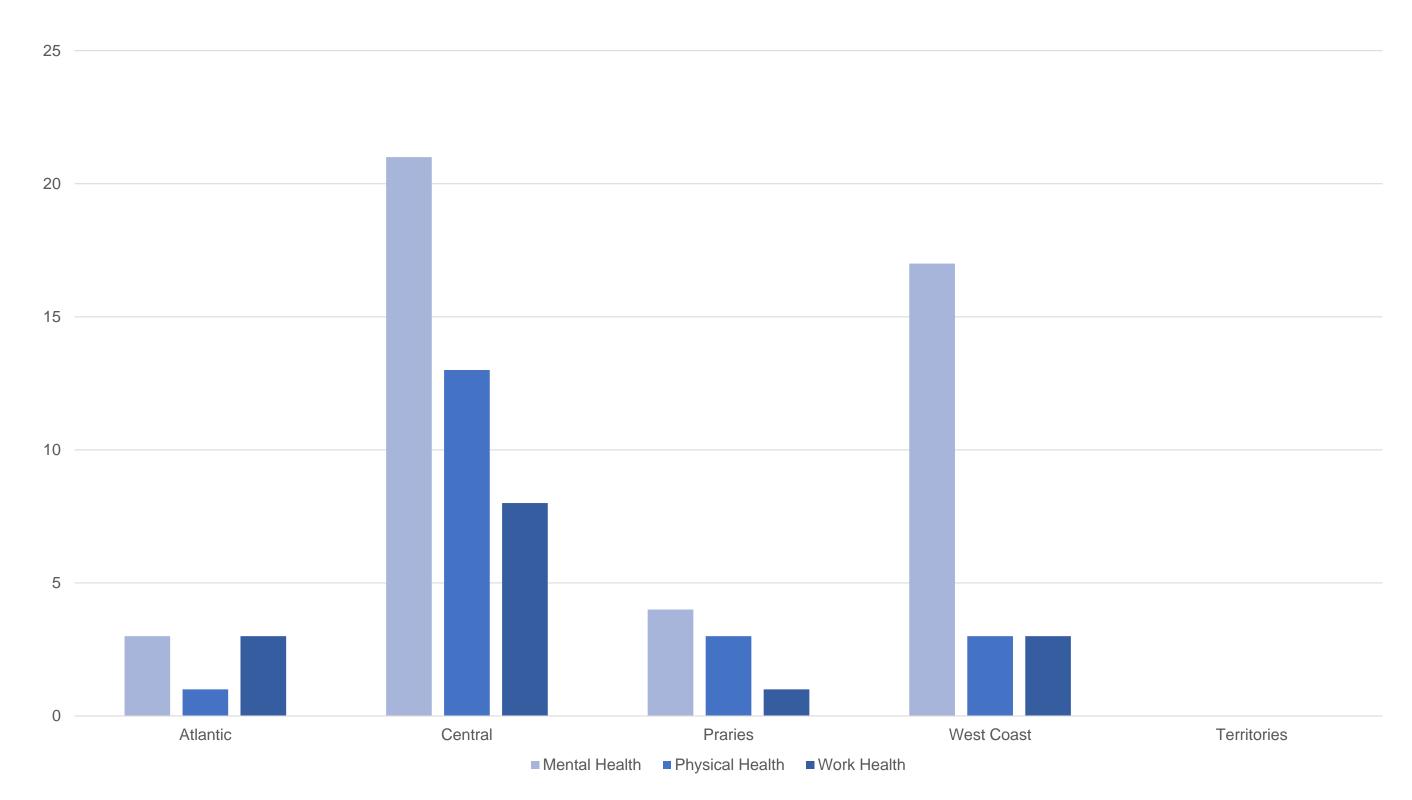
Methods

- Google search (July 2017) for the websites of 533 fire organizations (departments and union/associations at three levels: international/national, provincial, and local levels).
- Important information (i.e., website, resource format, health focus, topic) from all resources regarding firefighter health and safety were entered into tables based on geographical location at each of the three levels.
- Data analyses: Descriptive numerical summaries

Results

- 313 websites were found, 41 of which contained applicable health information (Table 1).
- 128 resources were identified (with only 4 duplicate resources); 59 on mental health, 43 on physical health, 26 on work health, and none on musculoskeletal injuries (Table 1).
- The provincial websites of British Columbia, Ontario and Quebec were key contributors in resources (particularly for mental health) (Figure 1).
- The most prevalent topics in mental health and physical health resources are shown on Figure 2.

Figure 1: Distribution of Health Resources by Provincial Regions of Canada



Legend: Atlantic = NL, PEI, NS, NB; Central = QC, ON; Prairies = MN, SK, AB West Coast = BC; Territories = YT, NT, NU

Conclusion and Discussion

Lack of Resources and Resource Sharing

- Although MSK injuries are very common in firefighters¹, no MSK resources were found.
- The lack of duplicate resources suggests little consistency and resource sharing.
- Only 13% of the websites contained resources, indicating lack of resources at the local level.

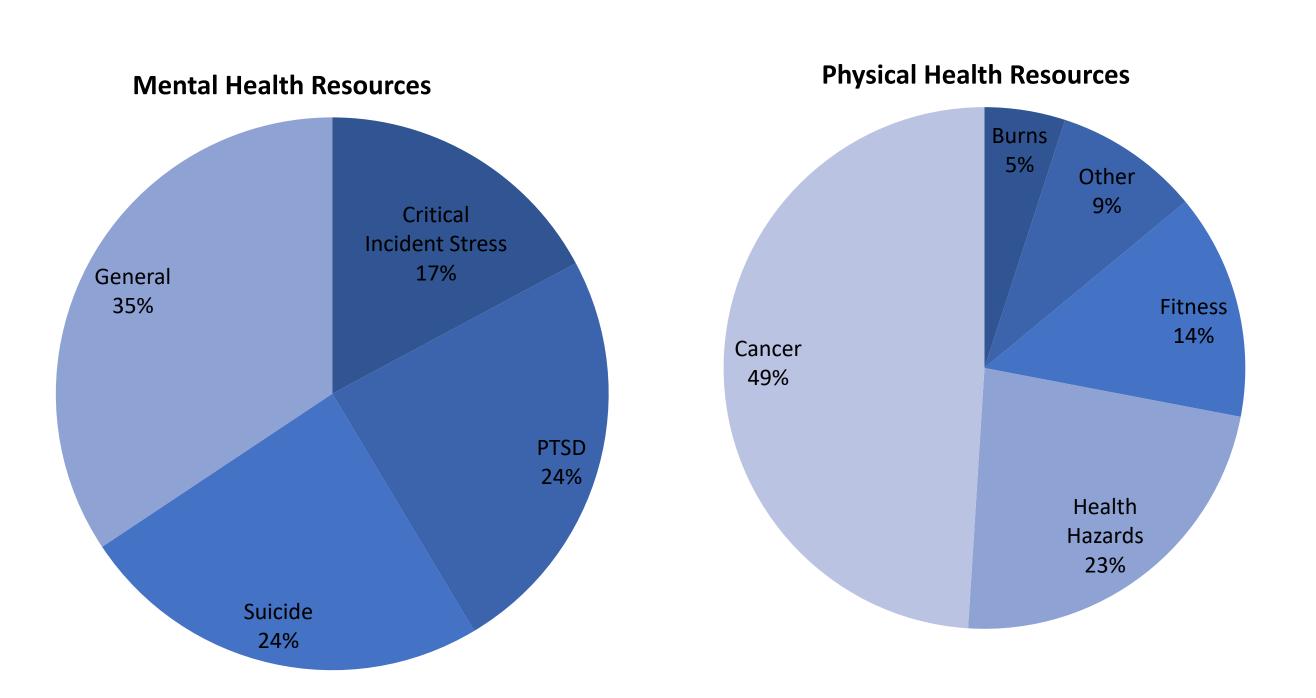
International/National and Provincial websites generally had more available resources

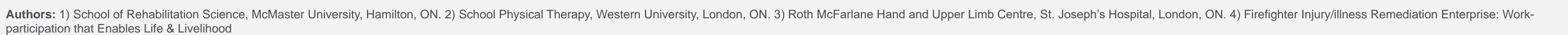
- Most local websites contained no resources (only 39 resources across 282 local websites).
- It is important that all fire departments/associations are made aware of the International/National firefighter association websites (40 resources across 3 websites).

Future Directions: Research, Development and Knowledge **Translation**

- Research and development of MSK injury resources for firefighters across Canada.
- Improve the accessibility of resources in remote areas (i.e., Northern Canada/Territories) and urban fire departments across Canada.
- Promote awareness of international, national and provincial websites to local fire departments (i.e., links through their department website).

Figure 2: Topic of Focus for Mental and Physical Health Resources





References: 1. Negm A, MacDermid J, Sinden K, D'Amico R, Lomotan M, MacIntyre N. Prevalence and distribution of musculoskeletal disorders in firefighters are influenced by age and length of service. Journal of Military, Veteran and Family Health. 2017;3(2):33-41. 2. Tsai RJ, Luckhaupt SE, Schumacher P, Cress RD, Deapen DM, Calvert GM. Risk of Cancer Among Firefighters in California, 1988–2007. Am J Ind Med. 2015;58(7):715–29.

3. Jones S. Describing the Mental Health Profile of First Responders: A Systematic Review. J Am Psychiatr Nurses Assoc. 2017;23(3):200–14. 4. Lourel M, Abdellaoui S, Chevaleyre S, Paltrier M, Gana K. Relationships Between Psychological Job Demands, Job Control and Burnout Among Firefighters. N Am J Psychol 2008;10(3):489–496.









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