Executive Summary

The Saskatchewan Workers’ Compensation Board commissioned this pilot program with the Firefighter Cancer Consultants after seeing a significant increase in firefighter occupational cancer diagnoses and deaths. The purpose of the pilot program was to gain a better understanding of the current firefighter cancer preventive landscape throughout the province. There were 15 stations (including eight departments) that participated in this pilot program. The departments ranged from small rural volunteer departments, to large metropolitan career departments. The pilot program consisted of policy reviews, fire station inspections, and in-depth interviews with fire department members. The interviews gave insight to how the departments function regarding firefighter cancer issues on scene and at the firehouse. Each participating department has received an individualized action plan report. The reports give practical recommendations based upon the current practices, to ensure the departments implement the best practices known to reduce their members’ risk of being diagnosed with an occupational cancer. The complete findings and recommendations were shared amongst Saskatchewan fire chiefs at their April 2019 conference in Moose Jaw.

Findings

The majority of departments have begun implementing cancer prevention initiatives. However, they are generally lacking in these significant policies or resources:

- SCBA use throughout the duration of overhaul
- Gross on-scene decontamination
- Washing PPE in gear extractors
- Storage of fire gear
- Backup sets of PPE
- Particulate blocking hoods
- Washing soiled uniforms after a fire
- Diesel exhaust systems
- Exposure documentation
- Department based annual medical physicals
Volunteer vs. Career

The data gathered showed a clear separation between volunteer and career departments resources that help combat occupational firefighter cancer. These items included:

- PPE Extractors
- Backup set of PPE
- Particulate blocking hoods
- Storage of PPE in the apparatus bay
- Lack of diesel exhaust systems
- Medical exams
- Exercise equipment

The Path Forward

The main priority should be training fellow firefighters about how significant of a threat occupational cancer is. Department members will be more supportive about procedural and cultural changes if they have been educated beforehand on why this change is necessary for the betterment of their lives and their families.

The firefighter cancer training should consist of firefighter cancer awareness, prevention, and support. There are a multitude of training options available throughout the country. Any chance to make these trainings personal to the members will also increase buy-in. Having firefighter cancer survivors or sharing the legacy of members who have succumbed to this epidemic makes this much more personal and could influence current members to take this topic seriously.

In order to properly address the current state of a department regarding cancer prevention, departments should complete a self-examination that compares their current practices with best practices for reducing their risk of being diagnosed with cancer. The “25” checklist is a great assessment tool that allows departments to understand where they currently stand and what items need attention. It is recommended that each department create a Health & Safety Cancer Committee who can work together on the assessment and implementation of preventative techniques.
An unfortunate trend throughout the Fire Service is that many departments prioritize items based on finances, not safety. To avoid this pitfall regarding firefighter cancer, it’s suggested to aim for the low hanging fruits initially. Try to implement the items that cost little or nothing, and are logistically easy to implement. Once this is completed, you should have a good foundation to build off of and grab those high hanging fruits later on. These items include:

• Wearing SCBA’s during a structure fire, car fire, and trash fire
• Drivers/Operators wearing full PPE & SCBA
• **Incident Commander wearing full PPE & SCBA during their investigation**
• **Fire Investigators wearing their SCBA & PPE during their investigation**
• Extra cylinders on scene
• Battery or Electric fans used throughout the duration of overhaul
• **Gross Decon on the fire scene**
• Decon tools/apparatus back at the firehouse
• **Shower ASAP after a fire**
• Wash soiled clothes in clothes washer at the station
• **Keeping PPE out of living quarters**
• Transporting PPE in personal/department vehicles
• Moving EMS equipment out of compartments directly over the diesel exhaust
• Being mindful of diesel exhaust on scenes
• Separation of apparatus bay and living quarters
• Moving drinking fountains/ice machines out of the apparatus bay
• Health & Safety Officer
• Health & Safety Committee
• **Annual skin exams**
• Skin protection
• Pregnant firefighter restricted duty
• **Fire exposure documentation**
• **FF cancer training**

Items in bold are priority items.
After you build your foundation, you can start working on the high hanging fruit items. The majority of these items cost a significant amount and may have to be budgeted with capitol funds or paid for with grants. These items may also be logistically difficult to implement due to lack of resources or cultural pushback. These items include:

- SCBA use throughout the duration of overhaul
- PPE cleaning extractors
- Backup set of PPE
- Particulate blocking hoods
- Storage of PPE away from the apparatus room
- Diesel exhaust systems
- Annual department ran medical physical exams
- Exercise rooms/passes
- Anti-sleep disruption measures

**In Summary**

The preventative measures recommended above will not be something that can be completed overnight. These measures are a part of a process that can be drawn out over the span of years. This new way of thinking does not come naturally to a majority of firefighters, so do not become discouraged if everyone is not initially supporting these changes. Eventually they will realize these measures are saving their lives, one step at a time.
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1 - Poor  
2 - Below Average  
3 - Average  
4 - Above Average  
5 - Excellent

R/V = Rural/Volunteer  
SC = Small City  
LC = Large City
THE "25"

1. Wear SCBA's and full PPE on all structure, car, and trash fires.
2. Engineers and Command staff should wear SCBA's and full PPE in proximity to the fire.
3. Wear SCBA's and full PPE throughout the duration of overhaul.
4. Investigators and Command should wear SCBA's and full PPE while inside the structure.
5. Use Wipes on scene to remove contaminants on the skin.
6. Wash hands before ingesting food or liquids while on scene.
7. Gross Decon PPE while on scene.
8. Transport PPE, SCBA's, and tools outside of the cab if possible.
9. Clean contaminated SCBA's, tools, and hose back at the fire station.
10. Shower ASAP, ideally out of service.
11. Change and wash contaminated clothing at the fire station.
12. Wash PPE ASAP including your helmet, hood, gloves, and boots.
13. Switch into backup set of PPE ASAP.
14. Upgrade PPE with new particulate blocking technology.
15. Keep PPE in totes if transporting in personal or department vehicles.
16. PPE should never go inside the fire stations' living quarters.
17. Avoid storing PPE in the apparatus bay.
18. Use Diesel Exhaust systems as recommended.
19. Avoid storing frequently used items in compartments directly over the diesel exhaust tip.
21. Conduct annual medical and skin exams.
22. Use sunscreen and wear a hat.
23. Exercise and eat healthy.
24. Avoid all tobacco products.
25. Keep documentation of exposures from fire calls.
CANCER RISK in Firefighting

TOP 12 ways to protect yourself and your family

- SBA use on all fires and throughout the duration of overhaul
- Annual medical and skin exams
- Start tracking fire exposures
- Keep PPE out of living quarters and the apparatus bay
- Always use a diesel exhaust system
- Take a shower ASAP after a fire
- Clean your soiled uniforms in a department clothes washer
- Have a backup set of PPE
- Establish a Safety Committee regarding firefighter cancer
- Wash your PPE in a gear extractor ASAP
- Always perform on-scene gross decontamination of PPE
- Nutrition & exercise

MISSION: ZERO

WorkSafe SASKATCHEWAN
Work to live.

FIREFIGHTER CANCER CONSULTANTS

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