



WEBINAR:
**A Crash Course
in Collision
Investigations**



**ROAD SAFETY
AT WORK**

BCHP
BC Highway
Patrol

Introducing today's partner and presenter



Sgt. P.S. (Patrick) Davies A/NCO IC
Fraser Coast Integrated Road Safety Unit



**BC Highway
Patrol**

Presenters from Road Safety At Work



Angelina Robinson
Client Relationship
Manager



Rick Walters
Road Safety
Manager

Overview

- The importance of investigating crashes
- How to be ready to respond
- Information: what to gather and how
- Use what you learn to prevent further crashes
- Tools and resources

Why investigate crashes?

- Protect company interests
- Police, WSBC, ICBC **don't** investigate all
- Purposes not aligned with employer purposes: understanding *why*
- Information not available to company(s)



Legal requirements and due diligence

Legal aspects

- WorkSafeBC
- National Safety Code
- Protect against penalties, liability

Due diligence

- Ethical duty to co-workers, employees
- Moral responsibility to other road users
- Protect company interests

Prevent injuries; improve your business

Prevent future crashes

Avoid injuries and other harm to employees

Avoid penalties, premium increases, repair costs

Prudent, effective way to strengthen your business.

It's smart business.

Emergency response plan



Action plan
ready if crash
occurs



Assign
responsibilities



Crash scene
response



Notifications,
reporting



Practice with a
mock incident

Crash investigation policy

- Investigations yield *valuable insights*
- *Prioritize* based on severity
- Establish *thresholds*
- *Pay attention* to crashes that “could have been much worse”
- Know *who* will investigate



Who will gather information at the crash scene?

Information at crash scenes is often *short-lived*

- Uninjured employee at scene
- Ensure they have camera, notepad, etc.
- If employee can't, who will?



Get your bearings

- Get overall perspective
- Identify crucial information
- Organize site with grid or concentric circle
- Methodically focus on specifics

IF YOU'RE INVOLVED IN A CRASH ACTION CHECKLIST

Print and laminate these instructions, and carry a copy in the glove box of work vehicles.

Immediate Response

- If safe, turn off your vehicle. Check yourself and your passengers for injuries.
- Call or have someone else call **911**. Clearly communicate your situation.
- Check the area for hazards (downed power lines, traffic, glass, debris, fuel leaks, fire, etc.). Make a plan to avoid them before exiting the vehicle.
- Put on your high visibility vest.
- Secure the scene to ensure further harm does not occur: turn on emergency flashers, ask someone to control traffic, set up temporary protective barriers, etc.
- Check if others involved in the incident have sustained injuries, or other harm.
- Provide all reasonable assistance, including first aid.
- Cooperate with emergency responders and enforcement officials as they arrive.

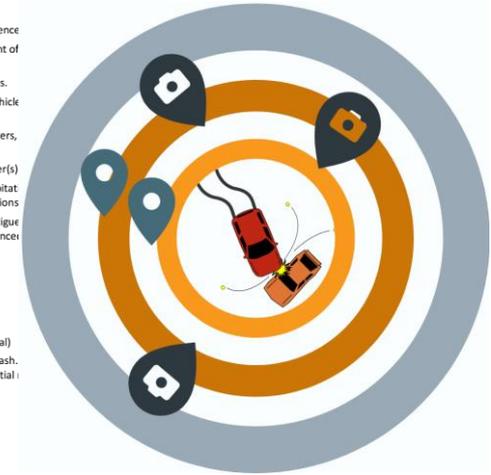
Collect Information - once emergency measures are in place, begin collecting information.

- Record the date, time and location of incident.
- Take photos of the scene and surrounding area, esp. short-lived evidence
- Make sketches of the scene - show direction(s) of vehicle, travel, point of location(s), eyewitness locations, etc.
- Describe what happened - use clear notes to state the order of events.
- Record Vehicle Identification Number (see insurance papers or on vehicle make, model, year and color of vehicles involved.
- Gather full names, addresses and phone numbers of drivers, passengers, owner(s) and witnesses.
- Record contact information vehicle insurer(s), including policy number(s)
- Use notes or photos to record information about the weather (precipitation, lighting), road (surface type, obstructions, traction) and traffic conditions
- Make notes about any indication of impairment (drugs, alcohol or fatigue behaviours of people involved, and other things that may have influenced

Notification

- Notify your employer and/or supervisor
- Notify [WorkSafeBC](#) if injured and require medical treatment
- Notify insurance company ([ICBC](#))
- Notify others (family, affected co-workers, clients awaiting your arrival)

Note: Notifications should occur as soon as reasonably possible after a crash. otherwise unable to do this, ask a co-worker or supervisor to help with initial



Click on image for link to checklist

Pictures tell the story

Locations of vehicles

Path of travel;
point of impact

Consequences –
injuries, property
damage, etc.

Objects,
circumstances that
may have been
factors

Weather, road
conditions



Supplies to carry in work vehicles

- MVI Investigation Checklist
- Smartphone with camera
- Vehicle emergency kit
- Notepad, pens
- Emergency contact info
- Inexpensive camera



Talk with people



Learn what others *saw* and *heard*



Viewpoints, perspectives and accounts may vary



Speak with as many witnesses as you can, prioritize



Take notes, record dialogue on phone



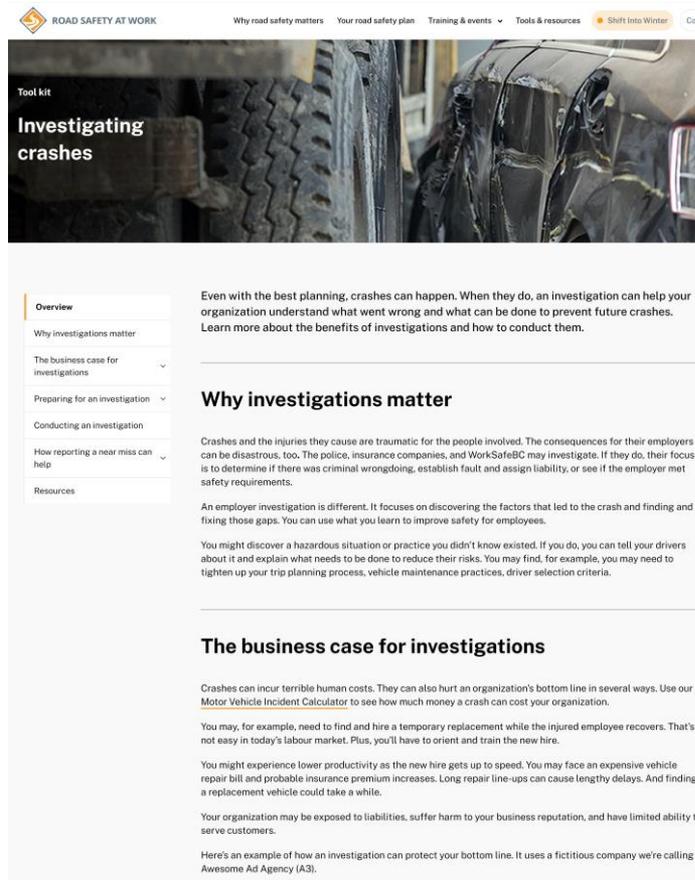
Licence plates of witnesses & 1st responders



Incident Investigation Tool Kit

Incident investigation Tool Kit

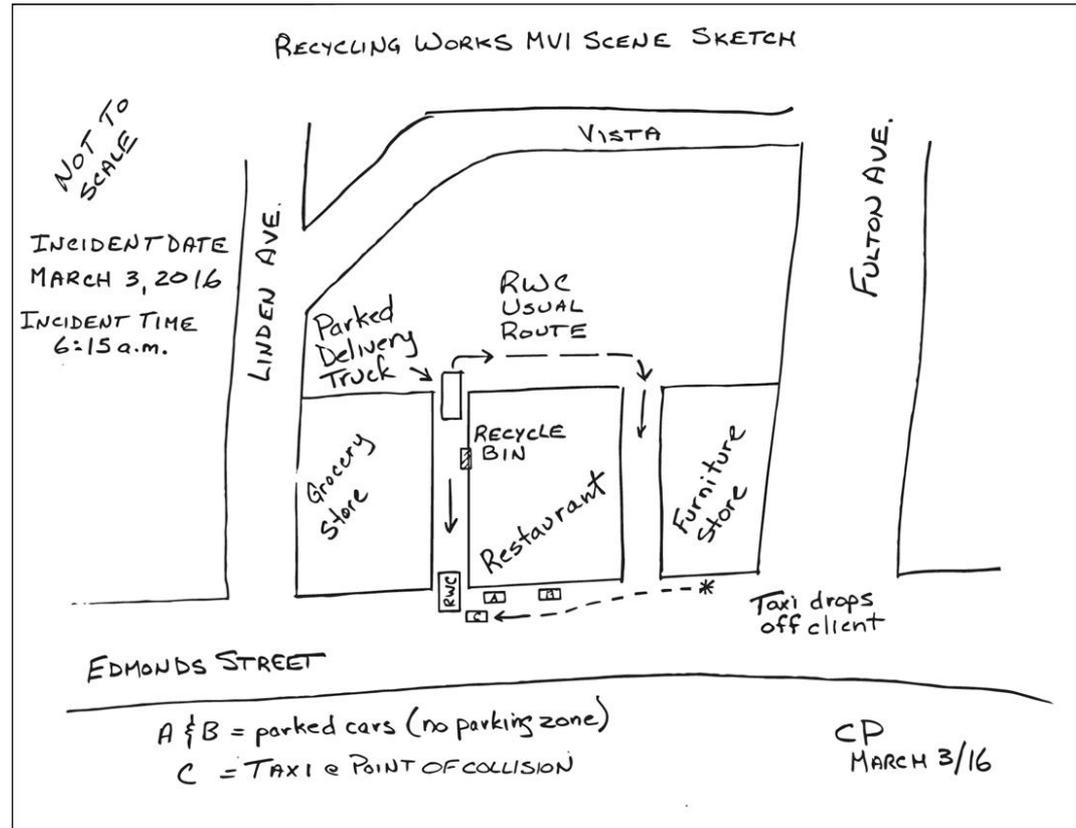
- Overview
- Why investigations matter
- The business case for investigations
- Preparing for an investigation
- Conducting an investigation
- How reporting a near miss can help
- Resources



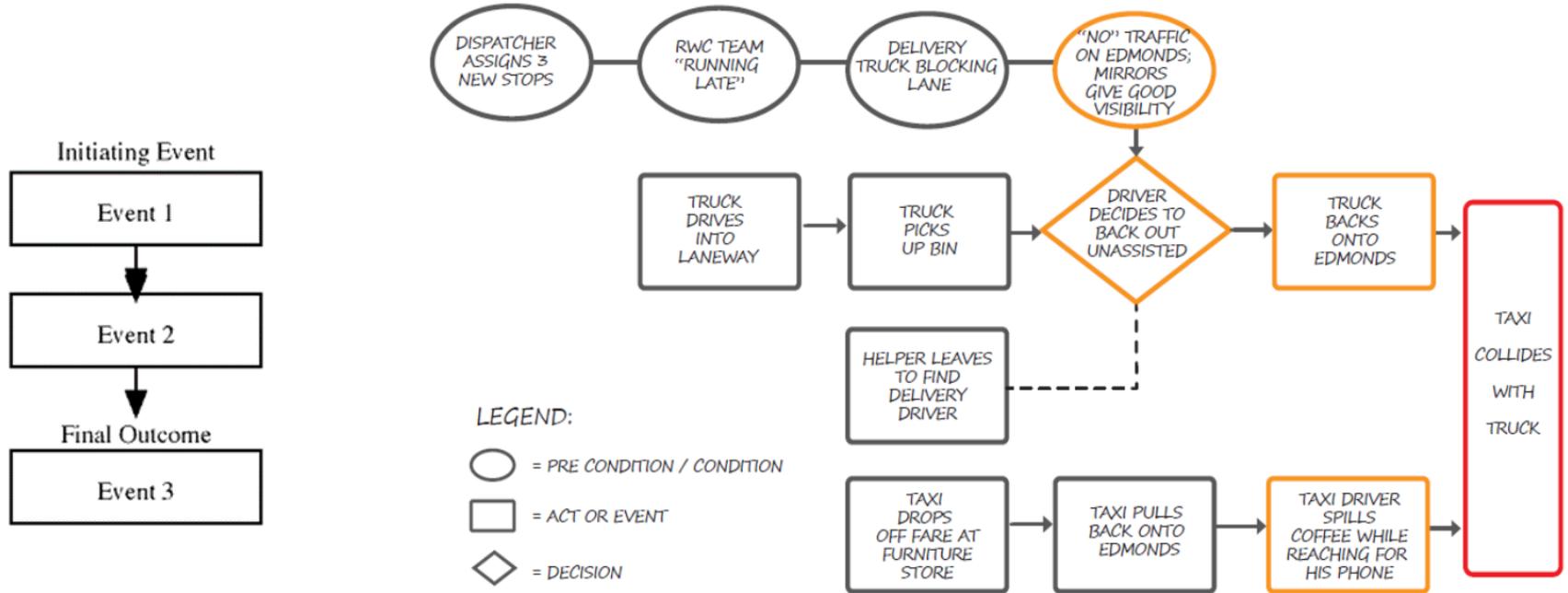
The screenshot shows the 'ROAD SAFETY AT WORK' website. The main navigation bar includes 'Why road safety matters', 'Your road safety plan', 'Training & events', 'Tools & resources', and 'Shift into Winter'. The page title is 'Investigating crashes'. A sidebar on the left contains a table of contents with links to 'Why investigations matter', 'The business case for investigations', 'Preparing for an investigation', 'Conducting an investigation', 'How reporting a near miss can help', and 'Resources'. The main content area features an introductory paragraph about the importance of investigations, followed by sections titled 'Why investigations matter', 'The business case for investigations', and 'Resources'. The 'Why investigations matter' section explains that crashes are traumatic and can be disastrous, and that investigations help organizations understand what went wrong and prevent future crashes. The 'The business case for investigations' section discusses the human and financial costs of crashes and provides a link to a 'Motor Vehicle Incident Calculator'.

Site sketch

- Rough overview of crash scene
- Features or events that may have played a role
- Simple, not to scale



What happened – Sequence of Events Map



MC/CP
MARCH 7/16

Questions

Getting to “why?”

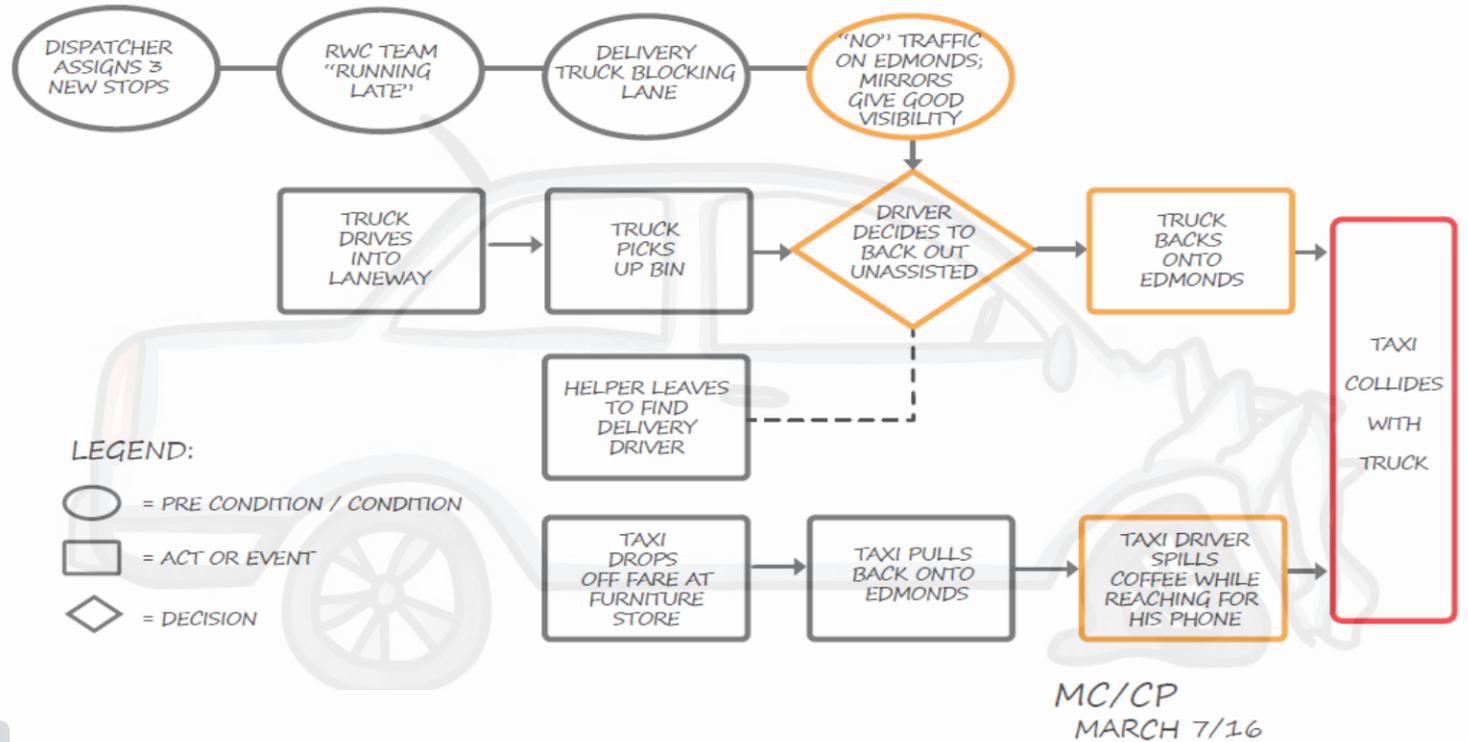
Analyze and interpret facts

- **Immediate causes** - unsafe or substandard acts, practices or conditions that lead directly to the incident
- **Underlying causes** - explain why the immediate causes occurred or existed



Sequence of events map = foundation

WHY?



Determining root causes



What happened?

Rear-ended another vehicle

Incident



Why didn't you have enough time to stop?

I was in a particular hurry that day.
I must have been speeding

Immediate cause: sub-standard act



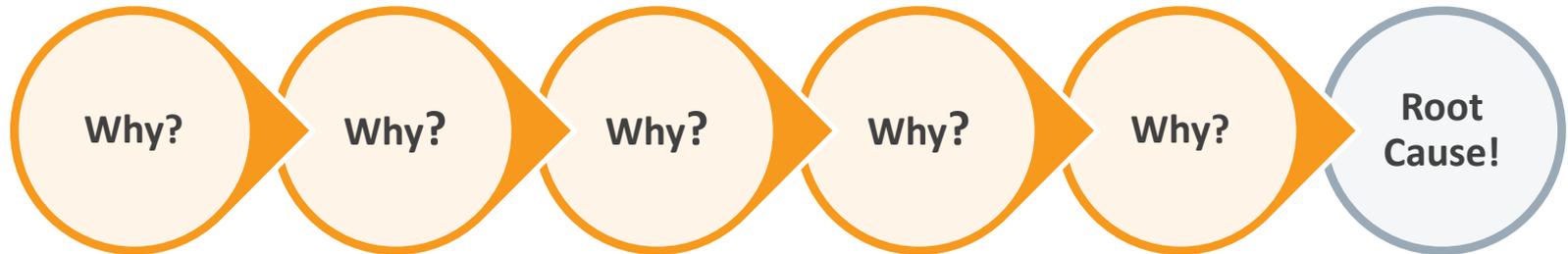
Why were you speeding?

Supervisor assigned 3 more clients; trying to get it all done.

Underlying cause: Inadequate supervision - assigned unrealistic expectations

The 5 WHY's

- Probe beyond immediate causes to find root causes
- Understand what happened, and why



Corrective actions: **Job / System factors**

Leadership / supervision: unclear direction, unrealistic assignments, poor instruction, lack of supervision, etc.

Engineering: insufficient assessment of loss exposure, inadequate standards, insufficient ergonomics

Maintenance: inadequate needs assessment, servicing, adjustment, scheduling; incorrect repairs

Work standards: inadequate development, communication or maintenance of standards, practices or policies

Tools and equipment: inadequate risk assessment, availability, inadequate standards / specifications

Purchasing: inadequate or incorrect specifications, research, receiving / prepping

Corrective actions: **Human factors**

Mental stress: driving environment, frustration, conflicting demands, routine / monotony

Physical stress: physical fatigue, injury or illness, medical condition, exposure to extreme temperature

Physical capability: vision or hearing, disability, insufficient strength, height or reach

Lack of knowledge: lack of experience, orientation or training; misunderstood directions

Lack of skill: inadequate instruction or practice, lack of coaching

Motivation: improper performance rewarded, lack of incentives, peer pressure, aggression, poor example

Draft the report

- Concise, accurate explanation of what happened, and why
- Inform readers
- Support conclusions / recommendations
- Guide implementation
- Due diligence – durable record

Simple report

1. Summary / overview
2. Immediate and underlying causes
3. Corrective actions – changes to reduce crash risks

Immediate Cause	Underlying Cause	Recommended Corrective Action
Driver in a hurry so backed into busy street	Improper planning / unrealistic scheduling: crew assigned 4 extra stops	Implement joint work planning process so work schedules are achievable

4. Appendices – supporting information

In-depth report

1. Executive summary
2. Purpose and objectives
3. Incident description
4. Investigation methods
5. Findings / conclusions
6. Recommendations / corrective actions
7. Appendix



Guide

Crash investigations

Investigations are an important part of every successful safety program. They help uncover underlying factors and conditions that cause or contribute to crashes. This enables your organization to take targeted actions to prevent similar crashes and avoid injuries and other costs.

Organizations that investigate both crashes and near-misses show their dedication to worker safety. When either event happens, it shows that road safety improvements need to be made.

This guide provides employers with step-by-step information on conducting investigations. It includes examples of diagrams and drawings to help you understand what to look for and document. You can use the guide on its own, or as part of our [Investigating Motor Vehicle Incidents](#) online course.

Table of contents

Step 1: Respond to the incident.....	1
Step 2: Gather information	2
Step 3: Map the sequence of events.....	7
Step 4: Determine underlying causes	8
Step 5: Recommend corrective actions.....	10
Step 6: Write your report.....	11
Step 7: Implement corrective actions	13

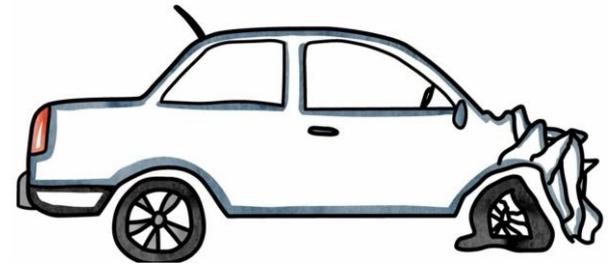
Implementing corrective actions

Be prepared to participate / assist in implementation

Corrective Action	Assigned To	Target Completion Date	Completion Date
Immediate action - Work with bin owner to move bin to easily accessible location	Supervisor	Sep 16	Sep 14
Immediate action - Review incident report with employees	CEO and Safety lead	Oct 21	
Near term – Implement joint work planning process so work schedules are achievable	Operations Super	Dec 16	

Summary

- Value and benefits of crash investigations
- Having an emergency response plan
- Investigation process
 - gathering information - photos, sketches, interviews
 - 5 Why's – immediate and underlying causes
 - building a solid report
 - implementing corrective actions



Resources



[Investigating
crashes tool kit](#)



[Vehicle
Emergency Kit](#)



[Incident
Investigation
Checklist](#)



[MVI
Investigation
Form](#)



[Sequence of
events example](#)



[Crash scenario
diagram
example](#)



[Online course –
Investigating
crashes](#)



[Contact us!](#)

Questions

Contact us with your questions



[Contact Sgt. P.S. \(Patrick\) Davies](#)



[Contact Angelina Robinson](#)



[Contact Rick Walters](#)

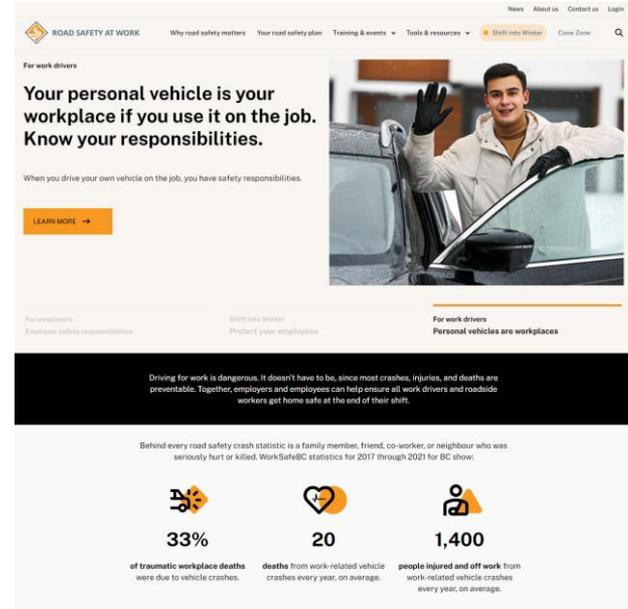


The screenshot shows the top navigation bar with links for News, About us, and Contact us. The main heading is 'How can we help you?'. Below it, there is a message: 'Let us know what you need and we'll get back to you. Know who you're looking for? Review our [team directory](#) to find their contact information.' The form includes a dropdown menu for 'What can we help you with?', a text area for 'Please give us a few more details about your question*', and fields for 'Your name*' (First Name and Last Name) and 'Your organization' (Organization Name). There are radio buttons for 'Email' and 'Phone'. A 'SUBMIT →' button is at the bottom. The footer contains the Road Safety at Work logo, navigation links (About us, Contact us, Login, Register), social media icons (Facebook, Twitter, Instagram, LinkedIn), and a 'Stay up to date' section with a 'SUBSCRIBE →' button.

Hover over name titles or web page image for contact tools

Visit the website

www.roadsafetyatwork.ca



Getting started with road safety



Why road safety matters

Anyone who drives full-time, part-time, or only occasionally for work can be injured or killed in a crash. That's why road safety needs to be part of your workplace safety program.



Your road safety plan

Preventing crashes and injuries is smart business. It's also part of your employer responsibilities. Use our template and other resources to build or improve a plan for your organization.



Assessing drivers

Protecting your people on the road starts with making sure they're legally allowed to drive and have the skills to safely drive for work. Use our step-by-step guide to driver assessments.

Thank you

Please follow us:

