

# Evaluation of Best Practice Programs to Improve the Health and Wellness of Truck Drivers in BC

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**Research Team:** Mamdouh Shubair (PI) & Omolara Odulaja, University of Northern BC; Alex Crizzle, University of Saskatchewan; Pierre Thiffault, Transport Canada; Earl Galavan, SafetyDriven-Trucking Safety Council of BC

Phil Bigelow, PhD, ROH  
[pbigelow@uwaterloo.ca](mailto:pbigelow@uwaterloo.ca)



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**WORK SAFE BC**

# Partnerships

- Agencies and Organizations
  - SafetyDriven - TSCBC
  - Owner-Operators Business Association
  - OOIDA
  - WorkSafeBC
  - Transport Canada
- Research Groups
  - Universities – UNBC, USask, UWaterloo
  - Institute for Work & Health
  - NIOSH



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# Brief outline

1. Background
2. Study Purpose
3. Methods
4. Results
5. Progress and Conclusion



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# 1. Background

- Truck Drivers are an at Risk Population
  - High risk for overweight, CVD, diabetes
  - High crash risk
  - High rates of non-crash injuries – falls and musculoskeletal disorders
- Large Occupational Group
  - 2<sup>nd</sup> most common occupation for men in Canada – 1 million commercial drivers; 300,000 drivers in Transport sector

# 1. Background

- Work Environment for Truck Drivers
- Health and Safety Concerns
- Chronic Disease Risk Factors
- Crash-related Risk Factors
- Challenges in Addressing Health and Wellness Concerns of Drivers

# 1. Background

- Work Environment for Drivers
  - Long workhours
  - Shiftwork
  - Often paid by miles driven
  - Hours of Service (HoS) control rest and break periods
  - Lack of truck parking
  - JIT logistics reduces schedule flexibility
  - Limited choices for healthy food at truck stops
  - Limited time and facilities for exercise

# 1. Background

- Health and Safety of Drivers
  - High risk of fatal injury
  - Occupation with the highest number and cost of lost-time injuries
    - BC over 87,000 LTIs per year (cost of over \$36 million)
  - Exposure to Whole Body Vibration
    - Associated with back pain
    - Impacts vigilance and associated with fatigue and crash risk
    - Impacts sleep and well-being

# 1. Background

- Health and Safety of Drivers (cont.)
  - High rate of musculoskeletal disorders
    - Vibration
    - Lifting – hand bombing freight
    - Awkward postures (also prolonged sitting posture)
  - High rates of slip trips and falls
    - Exiting cab
    - Tarping flatbeds and accessing trailers
    - Vehicle inspection and maintenance
    - Traction and weather

# 1. Background

- Chronic Disease Risk Factors
  - Highest BMI of all occupational groups
    - Constellation of factors
  - Prolonged sitting
    - Paid by mile so time spent driving is maximized
  - Lack of physical activity
    - Time pressures
    - Limited access to facilities
  - Dietary factors
    - Limited access to healthy food (truck parking problem)
    - Unable to carry fruit over US/Canada border
    - Snack consumption to maintain vigilance

# 1. Background

- Crash-related Risk Factors
  - Insomnia and sleep disorders
    - High rates of sleep apnea in drivers
    - Difficulty sleeping in cab sleeper for team drivers
    - Challenges finding parking
    - Sleep disruptions due to environmental conditions
  - Task related fatigue
    - Monotony
    - Vibration impacts on vigilance
  - Distraction
    - Multitasking
    - Use of electronics



# 1. Background

- Challenges in Addressing Health, Safety and Wellness(HS&W) Concerns of Drivers
  - Reviews indicate limited access to wellness related programs
  - Programs may be available but not documented in literature
  - Importance of integrated health protection and promotion
  - Need to understand what is available
  - Need to find and promote best practices

## 2. Study Purpose

- Determine:
  - The prevalence of Safety, Health, and Wellness programs available to truck drivers in BC
  - If HS&W program elements align with NIOSH TWH recommended elements, COR, and the NAFMP
  - How do carriers with HS&W programs differ from those with no programs
  - The proportion of programs integrated into other management systems (e.g., COR, ISO 9000 etc)
  - The facilitators and barriers to adopting HS&W programs

# 3. Methods

- Adapt Transit Cooperative Research Program Questionnaire (Gillespie et al 2014)
  - Management support for HS&W
  - Types of initiatives for HS&W
  - Organizational policies & practices for HS&W
  - Specific programs and initiatives
- Institute for Work & Health 8-item Organizational Performance Metric (Amick et al 2011)
  - Scale with good reliability and associated with health and safety performance of companies
- Adapt Safety Climate Scale (Huang, Zohar et al 2013)

# 3. Methods

- Questionnaire Developed for Carriers/Companies
  - To be completed by owner/safety manager/joint health and safety committee member
  - Questions to assess company-level initiatives and HS&W programs offered to drivers by external agencies (e.g., insurance)
  - Includes facilitators, barriers, and readiness to change
- Questionnaire Developed for Drivers
  - Focus on access to programs from all sources
  - Some health information collected
  - Barriers and facilitators from driver perspective
- Survey Monkey Platform for both

# 3. Methods

- Database of Transportation Companies
  - Obtained from WorkSafeBC
  - All registered truck transport companies in BC
  - Email and contact information obtained
- Distribution to Drivers through Organizations and Carriers
  - Link on owner-operator and driver organization websites
  - Link on health and safety and industry association websites
  - Newsletters/communication within companies

## 4. Results

### Contacts available (carriers)

**Very small**

11,949

**Small**

3455

**Medium**

453

**Large**

229

### Contacts not available (carriers)

11,322

Note: it is likely that the majority of carriers with no email addresses provided are owner-operators

# 5. Progress and Conclusions

- Pilot Testing of Questionnaire Indicates Study will be well Received
- Stakeholders Committed to Study and Assisting with Data Collection
- Challenges Expected to be with Owner-Operators and Very Small Carriers
- Future Research will be to Identify Effective HS&W Programs
- Expand work across Canada



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