Integrated Health Protection & Promotion Programs for Truck Drivers in British Columbia

NIOSH TWH 2nd International Symposium

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Partnerships

• Industry and Driver Organizations
  • Owner-Operators Business Association
  • OOIDA
  • Provincial Trucking Associations
  • Unions – Teamsters and UNIFOR
  • Provincial Health and Safety Associations
  • Regulatory Agencies

• Research Groups
  • Universities across Canada
  • Transport Canada
  • Link to NIOSH
  • Institute for Work & Health
Brief outline

1. Background
2. Study Purpose
3. Methods
4. Results
5. Progress and Conclusion
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\textsuperscript{nd} 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
  • How do carriers with HS&W programs differ from those with no programs
  • The proportion of programs integrated into other management systems (e.g., 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

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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