Development of a specialist investigation standard for heavy vehicle (HV) fatal collisions in Victoria

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Background – *Coroners Act 1985* (Vic)

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  - Injury deaths required to be reported to the coroner for investigation
  - Coroner must establish in the finding:
    - Deceased's identity
    - Cause of death
    - How the death occurred
    - Particulars for registering the death
  - Coroner may comment on any matter connected with the death related to public health and safety or the administration of justice

Background - Work-Related Liaison Service

- Work-Related Liaison Service
  - Established July 2005
  - Funded by the Victorian WorkCover Authority
  - Role to assist the coroner by conducting research on work-related deaths and providing evidence based information on injury risk factors and countermeasures for prevention

Background – WRLS Inclusion Criteria

- **On Employer Premises**
  - Engaged in work
  - On break
  - In employer parking lot
  - Engaged in recreational activities on employer controlled facilities for personal enjoyment
  - As a visitor for non-work purposes, not on official business
- **Off Employer Premises**
  - Working for pay or compensation, including at home
  - Working as a volunteer
  - Working in a family business
  - Travelling on business, including to and from customer contacts
  - Engaged in work where vehicle is the work environment
  - Working for self – not profit, repairing own roof, hobby farmer
  - Commuting to or from work site

Rationale

- HV Fatal Injury Problem
  - HV comprise ~30% of cases identified as "work-related" by WRLS
  - In Victoria per year
    - >1,000 HV collisions
    - ~60 HV fatal collisions

Rationale

- Limits of Death Investigation for Prevention Research
  - No systematic approach
  - HV fatal collision scenes are extensive and investigation is complex
  - Absence of specialist crash investigator involvement in majority of HV fatal collisions limits risk factor identification

Study Aims

1. Develop an investigation standard focused on OH&S to strengthen the coroners' role in prevention of HV fatal collisions

2. Identify evidence based prevention measures to assist the coroner and promote to industry

Method – Investigation Standard Development

- Database / Classification Systems Reviewed
  - ICD-10
  - National Coroners Information System
  - ANZ Standard Industry Classification
  - ANZ Classification of Occupation
  - Australian Transport Safety Bureau
  - Standards Australia – Workplace Injury and Disease Recording Standard
  - Mass Crash Databases

Method – Investigation Standard Development

- Data Field Assessment
  - Conducted by staff with experience in crash investigation, coroner's data and road safety
- 3-Point Data Field Ranking
  - Essential
  - Beneficial
  - Supplementary

Method – Investigation Standard Development

- Draft Investigation Standard
  - 302 Data Fields
    - 50 Essential
    - 188 Beneficial
    - 64 Supplementary
- Major Components
  - Deceased Details
  - Employment Details
  - Coroners' Investigation
  - Incident
  - Vehicle

Investigation Standard Trial – Retrospective Fatally Injured HV Drivers

- Retrospective Case Series
- Fatally injured HV Drivers
- 2000-2005 Victoria
- Inclusion Criteria
  - HV drivers holding approved licence
  - 4.5 GVM
  - Work activity at time of collision
  - Traffic conditions

Investigation Standard Trial – Retrospective Fatally Injured HV Drivers

- 2 case trial
- Information not present
  - Driving hours
  - Restraint
- Information Limited
  - Contributing factors
  - Counterpart

Essential Items	Case 1	Case 2
Present	33	27
Not Present	17	19
Not Applicable	0	4

Implications

- Identification of gaps in HV fatal collision investigation
- Identification of the role of known and other risk factors
- Inform prevention opportunities via the coroners system and to the transport industry

Future Directions

- Complete retrospective trial of cases
- Refine investigation standard
- Prospective trial