conclusion education materials, will further aid POLs with having conversations.

**Learning Outcomes** Describe how MS parents/coaches/staff evaluated concussion education training sessions.

### 3E – Road – Data, March 23, 2021

**3E.001** ASSESSING THE REAR-END CRASHES CHARACTERISTICS ON A RURAL MULTILANE EXPRESSWAY IN INDIA

Laxman Singh Bish*, Geetam Tiwari. Indian Institute of Technology Delhi, New Delhi, India

Expressways are rural multilane intercity highways which are being built rapidly lately in India. As per Indian government data, the recorded deaths on intercity highways such as national highways (NHs) and expressways are 36% of the total fatalities on Indian roads in 2018. However, the contribution of NHs in total road network length is 1.94%, whereas the existing length of operational expressways in India so far is unknown. Hence safety of rural multilane intercity highways such as expressways is a significant concern in India and need to be investigated. In this study first objective was to assess the characteristics of the rear-end crashes of the 165 km long rural multilane intercity expressway using the crash data from August 2012 through October 2018. The second objective was to identify the factors affecting rear-end crashes using random parameter count model. The factors considered are geometric design elements, service lane status and access points density. Results show that rear-end crashes constitute 49% of the total fatal crashes and 34% of the total non-fatal crashes. Besides, it was also revealed that truck-involved and car-involved crashes are prominent rear-end crash types. Also, truck-strike-truck and car-strike-car crashes have the highest number of cases for both fatal and non-fatal rear end crashes. There exists variation in the safety of horizontal curve segments as compared to linear segments. However, linear sections were having more rear-end crashes comparatively. At the end, possible interventions were discussed according to the findings to reduce the rear-end crashes on the expressway.

### 3F – WHS – Hazard and Risk, March 23, 2021

**3F.001** ANALYSING SUBJECTIVE INCIDENT DATA TO GUIDE STRATEGY

Kate Harris*, SA Health – NALHN, Adelaide, Australia

**Context** Incident-reporting systems enable organisations to capture and analyse large volumes of occupational safety incidents. By counting and categorising hazard and incident reports, these systems are crucial to understanding broad organisational risk. However, these systems are often unsatisfactory in identifying micro-trends, local hazards and those not anticipated by the system designers. Qualitative data analysis is not a standard function of most large scale reporting systems, identifying local or unique hazards often occurs outside the reporting system relying on free-text comments. Addressing hazards in this manner is labour intensive and not often integrated into risk management pathways.

**Process** Cluster analysis using the freely available NODEXL software program provides means to analyse subjective incident data in a semi-quantitative manner. The data can self-categorise to form a picture of local level hazards. This presentation includes examples of this method used to analyse Workforce MSI, challenging behaviour and Mental Stress incident reports in Healthcare.

**Outcomes** A visual representation of qualitative incident data to inform local strategy.

A repeatable and targeted method of hazard ID.

The identification of new or unanticipated hazards and their interactions.