

Wyoming Transportation Event Occupational Fatalities and EMS Accessibility

This project will investigate emergency healthcare accessibility in fatal occupational motor vehicle crashes in Wyoming (WY). Specifically, this study will utilize Geographic Information Systems (GIS) to analyze emergency medical services response times and travel distances for occupational fatal motor vehicle crash sites and length of survival for crash victims not found dead on scene. The *objective* of this study is to identify areas of the state where travel distances and times of EMS response result in reduced durations of survival for fatal occupational MVC victims. Therefore this study will address a need in the MAP-ERC's region as well as the NORA mission of research and intervention especially in transportation and mining sectors. The *specific aims* of this study are the following: 1) identify EMS response times and travel distances that are associated with increased duration of survival for MVC victims, and 2) raise awareness of emergency and trauma care accessibility in WY. These aims will be achieved through spatial analysis utilizing GIS on a previously compiled surveillance dataset of WY occupational fatalities (Anderson, Conway & Lincoln, 2010). The *expected outcomes* of these aims include the following: 1) an informed decision of the impact the post-event, environmental factor of EMS response time and travel distance has on the high rate of WY fatal occupational MVCs, 2) definitive geographic areas in need of improved emergency and trauma care accessibility, and 3) a methodology for addressing EMS accessibility in similar rural regions. This study is expected to have a positive impact for the State's goal to reduce occupational fatalities in WY. Lastly, maps will be generated from significant findings portraying specific areas in the state where EMS accessibility may be limited. This study is *significant* because it will provide information required for the state to lower its rate of occupational fatalities by informing state, community and healthcare providers of areas to address in the provision of optimal emergency and trauma care.