

# UNION PACIFIC RESEARCH UPDATE

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# RESEARCH PROVIDERS

Denver University, Health  
Improvement Solutions,  
University Services

# UP/FRA RESEARCH AGENDA

- ▣ Assess the relationship between safety, health and risk factors such as: fatigue, sleep disorders, stress, depression, etc.
- ▣ Part of UP FRMS
- ▣ Create evidence-based interventions
- ▣ Partnerships with Labor and Regulators
- ▣ Bottom-line Implications: Improve employee health and safety while reducing medical costs and improving productivity.

# Subjects of Inquiry

- ▣ Behavioral Health
  - Depression
  - Stress
  - Coping
- ▣ Fatigue
  - Sleep Disorders
- ▣ Physical Health
  - Obesity
  - Other Factors

# PRIOR RESEARCH UPDATES

- ▣ Depression (Denver University)
  - OHN/Manager/Peer training signs and symptoms.
  - Awareness and general education.
  - Additional research recommendations
- ▣ Sleep Disorders (University Services)
  - Voluntary screening
  - Awareness and general education
  - OHN training
- ▣ Organizational Stress (Denver University)
  - Assessment/Analysis tools

# CURRENT & RECENTLY COMPLETED PROJECTS

- ▣ Coping Mechanisms (Completed)
  - Assess current coping mechanisms and provide more adaptive strategies
    - ▣ Relationships among conditions examined
    - ▣ Coping improved with new strategies
    - ▣ Reissue current education and develop additional to provide positive strategy options
- ▣ Safety-Related Risk Factors (near completion)
  - Assess relationship between accidents & injuries with risk factors such as stress, depression , fatigue and obesity

# CURRENT

- ▣ Safety & Health Risk Algorithm Validation Study
  - Objectives
    - ▣ Validate the Safety & Health Risk Algorithm (SHRA)
    - ▣ Examine efficacy of SHRA among railroad employers.
    - ▣ Utilize algorithm to implement methodology for reducing accidents and injuries.
    - ▣ Learn more about relationship between health risk and safety .
  - Methods
    - ▣ Data Collection: work unit incident data & SHRA scores.
    - ▣ Data Analysis: to determine health risk prevalence and safety incidents.
  - Two Year Study

# PROPOSED RESEARCH

- ▣ BAA
  - Review and Evaluation of FRMS
    - ▣ Scientific Panel
  - Education Review
  - Creating a Supportive Home environment
  - Software Development: Personal health behaviors/potential relationship with biomathematical models.
  - Qualitative Inquiry
- ▣ PTSD
- ▣ Crew Resource Management (CRM)



# CONCLUSION

- ▣ Evidence-based programs and interventions to reduce risks and improve safety and health.
- ▣ Informed discussions, communications and program design.
- ▣ Improved communications and relationships among stakeholders.
- ▣ Direction for future program development and research agendas.