REPORT SUMMARY

FTA Report No. 0223
June 2022

FTA RESEARCH
FEDERAL TRANSIT ADMINISTRATION

FTA STANDARDS DEVELOPMENT PROGRAM: MEDICAL FITNESS FOR DUTY AND FATIGUE RISK MANAGEMENT

Background

In accident investigations performed by the National Transportation Safety Board (NTSB), fatigue, medical fitness for duty, and other related factors have been indicated as causal or contributing to fatal transportation events and are the source for recommendations to U.S. Department of Transportation Modal Administrations dating back to 1989. NTSB's 2019–2020 Most Wanted List of Transportation Safety Improvements included these fatigue and medical fitness for duty-related topics.

Objectives

Objectives of this research were to conduct background research and analysis on needs and gaps for new standards, recommended practices, guidance documents, or procedural considerations in the areas of medical fitness for duty and fatigue risk management and present findings to FTA related to the development or issuance of voluntary standards, protocols, guidelines, or recommended practices related to medical fitness for duty and fatigue risk management.

Findings and Conclusions

Factors related to medical fitness for duty and fatigue risk management that should be addressed include increased employee safety reporting programs, pre-employment and return-to-duty medical exam certification, development of non-punitive attendance policies and procedures, and improved Hours of Service policies and worker scheduling, among others.

Research related to medical fitness for duty included an examination of medical examination certification/certificate regulations issued by USDOT modal administrations and regulations, laws, or directives prescribed by state DOTs, State Safety Oversight Agencies (SSOAs), or other state or regional authorities or those required locally. CUTR examined fatigue risk management including recognition and reporting of and testing for sleep disorders, training programs that address these issues, and cognitive overload human factors.

Among the research findings are the following:

- The limited availability of national transit safety causal and contributing factors related National Transit Database (NTD) data restricts the ability to understand the full impact of fatigue and medical fitness for duty risk factors in the industry.
- Robust and mature employee safety reporting programs encourage employees to report fatigue and fitness for duty concerns and are essential for safe transit operations.
- Requiring pre-employment and return-to-duty medical examination certification for all safety-sensitive employees may reduce reportable incidents.
- Verification of explicitly-defined minimum medical fitness for duty qualification criteria for employment, through medical examination performed by a certified medical examiner, may reduce incidents and improve overall system safety.

- Testing for sleep disorders and associated practices may reduce the potential risk factors associated with driving while fatigued.
- Development of non-punitive attendance policies and procedures that encourage self-reported fatigue may reduce the number of fatigue-related incidents or close calls.
- Hours of Service policies that define the limits for driving time, time on duty, time off duty between shifts, maximum work week hours, maximum number of consecutive workdays, and emergency service provisions to reduce or mitigate fatigue risk may reduce the number of transit safety events.
- Consideration and mitigation of impacting factors of fatigue in the design of transit worker scheduling and transit route scheduling may reduce the potential for fatigue-related safety events and improve operator ability to perform their duties as assigned.
- Development of a formal work schedule manager certification program to ensure that all managers have the required expertise to properly create schedules taking employee health, safety, and performance into account may improve the safety of the industry through a reduction in fatigue-related safety events.

Benefits

A transit employee who is not medically fit for duty or is fatigued may be unable to effectively perform safety-critical tasks and, therefore, may jeopardize their own safety or that of other transit personnel, riders, or the traveling public. Catastrophic events may be avoided if a transit operator, maintenance technician, dispatcher, or other transit employee responds timely and effectively to safety-critical tasks occurring during routine daily operations.

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Project Information

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