Development of a Commercial Motor Vehicle Driver Fatigue Management Program

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NAFMP Steering Committee

• Consortium of public and private entities
  • Transport Canada
  • FMCSA
  • Alberta Transportation
  • Alberta Workers Compensation Board
  • Alberta Employment and Immigration
  • Société de l'assurance automobile du Québec
  • Commission de la santé et de la sécurité du travail du Québec
  • Canadian Trucking Alliance
  • Alberta Motor Transport Association
  • ATRI
  • Quebec Trucking Association
What is an FMP?

- Fatigue is multifaceted
- Address fatigue through a comprehensive approach

- New South Wales Mine Safety Advisory Council
- International Civil Aviation Organization
- Federal Rail Administration
- US Nuclear Regulatory Commission
- Federal Aviation Administration
FMP Goals

• Development of a “guide to motor carriers”
• Use with carriers of all sizes
  • Fatigue-related crashes
  • Driver health and wellness
  • Voluntary
  • Beyond prescriptive HOS regulations
  • FMP certification
FMP Development

• Phase I
  • Beta Test – 6 drivers

• Phase II
  • Pilot Test – 45 drivers

• Phase III
  • Field Test – 121 drivers

• Phase IV
  • Finalize materials, guidance, and support
What’s in the FMP?

• 10 FMP training and education modules
  • Five primary areas
  • Five audiences
• FMP Implementation Manual
• Business case for an FMP (ATRI)
  • ROI calculator
• Housed on it’s own LMS (ATRI)
  • FMP certification
Welcome to NAFMP

The NAFMP is designed to address the issue of driver fatigue with a comprehensive approach that includes:

- Information on how to develop a corporate culture that facilitates reduced driver fatigue
- Fatigue management education for drivers, drivers’ families, carrier executives and managers, shippers/receivers, and dispatchers
- Information on sleep disorders screening and treatment
- Driver and trip scheduling information
- Information on Fatigue Management Technologies

For the past several years, Canadian and American regulators, carriers, and researchers have worked on the development of a comprehensive approach for managing fatigue. This work has been led by a consortium of government and industry agencies with an interest in developing a more effective means of dealing with professional driver fatigue.

The NAFMP Steering Committee is comprised of Transport Canada, the Federal Motor Carrier Safety Administration, Alberta Transportation, Alberta Workers Compensation Board, Alberta Employment and Immigration, Société de l’assurance automobile du Québec, Commission de la santé et de la sécurité du travail du Québec, Alberta Motor Transport Association and the American Transportation Research Institute.

NAFMP Steering Committee members have committed significant time and resources to the development of a comprehensive FMP that would enhance a carrier’s ability to effectively deal with the challenges of fatigue in a highly competitive, widely dispersed, and rapidly changing industry.

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# FMP Training and Educational Modules

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<tr>
<th>Module</th>
<th>Target Audience</th>
<th>Estimated Duration</th>
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<tbody>
<tr>
<td>Module 1: FMP Introduction and Overview</td>
<td>Carrier Executives and other managers</td>
<td>45 min</td>
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<tr>
<td>Module 2: Safety Culture and Management Practices</td>
<td>Carrier Executives and other managers</td>
<td>1.5 hours</td>
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<tr>
<td>Module 3: Driver Education</td>
<td>Drivers</td>
<td>3 hours</td>
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<tr>
<td>Module 4: Driver Family Education</td>
<td>Driver spouses and family</td>
<td>45 min</td>
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<tr>
<td>Module 5: Train-the-Trainer for Driver Education and Family Forum</td>
<td>Carrier safety managers and other trainers</td>
<td>3.5 hours</td>
</tr>
<tr>
<td>Module 6: Shippers and Receivers</td>
<td>Shippers and Receivers</td>
<td>30 min</td>
</tr>
<tr>
<td>Module 7: Motor Carrier Sleep Disorders Management</td>
<td>Carrier Executives and other managers</td>
<td>1 hours</td>
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<tr>
<td>Module 8: Driver Sleep Disorders Management</td>
<td>Drivers</td>
<td>1 hour</td>
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<tr>
<td>Module 9: Driver Scheduling and Tools</td>
<td>Dispatchers and managers</td>
<td>1 hour</td>
</tr>
<tr>
<td>Module 10: Fatigue Monitoring and Management Technologies</td>
<td>Carrier Executives and other managers</td>
<td>1 hour</td>
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Instructional Methods

• Instructor-led PPT presentation
  • Used by a qualified instructor in a classroom setting

• Web-based non-interactive PPT presentation
  • Downloaded and used by learner as self-study

• Web-based interactive course
  • Interactive course created with CourseCreate authoring tool
  • Self-paced
Obstructive Sleep Apnea (OSA)

- One of the most common sleep disorders
- The throat muscles repeatedly relax and block and/or narrow the airway during sleep
- Breathing interruptions result in reduced blood oxygen levels and excessive brain activity during sleep
Leçon 1 : caractéristiques de la fatigue et accidents causés par la fatigue
Example of Web-Based Interactive Course

Module 3: Driver Education

<table>
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<tr>
<th>Introduction</th>
<th>Characteristics of Fatigue &amp; Fatigue Crashes</th>
<th>Sleep &amp; Other Factors Affecting Alertness</th>
<th>Health, Wellness, Drugs, &amp; Medications</th>
<th>Alertness &amp; CMV Driving</th>
<th>Conclusion</th>
</tr>
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**Age Differences in Sleep**

Adults need 7-8 hours - Teenagers need 8-9 hours - Elderly need more

Older adults:
- Lighter sleep
- More easily disrupted
- May take more naps
- Not more likely to fall asleep at the wheel

*Young males* (<30) are highest risk group for asleep-at-the-wheel crashes

But everyone can be at risk!
Checks on Learning/Quizzes

Module 7: Sleep Disorders Management for Motor Carriers

Choose your answer.

Why is it important to include health and wellness education as part of a comprehensive sleep disorders program?

- OSA is unrelated to overweight and obesity.
- Sleep health and general health are unrelated.
- Lifestyle choices and behaviors impact and influence sleep health.
- OSA is not influenced by lifestyle choices and behaviors.

Submit  Reset

Module 8: Driver Sleep Disorders Management

Matching Countdown

The following exercise shows categories for sleep apnea risk factors as well as the specific risk factors that fit these categories. Click on the pairs that go together within the time allowed.

- Epworth
- High Blood Pressure
- Sleep Indicators
- Found in 20% of CPAP drivers with sleep apnea
- Genetics & Family History

Time: 57

Module 3: Driver Education

Place the following 5 steps to behavior change in their desired order.

1. Unaware of problem
2. Aware, thinking of change
3. Planning to change
4. Taking action
5. Sustaining action

Submit  Reset

Module 7: Sleep Disorders Management for Motor Carriers

Why is weight management often prescribed as an adjunct treatment option to accompany PAP or other OSA treatment? Check all that apply.

- Weight loss can decrease OSA severity.
- Weight gain can increase OSA severity.
- A significant percentage of people with OSA are overweight or obese.
- Weight does not influence OSA; therefore, weight management is not recommended as an adjunct treatment option for OSA.
Implementation Manual

• Easy to use guide for carrier management
  • Introduction to fatigue
  • Overview of the NAFMP
  • Step-by-step implementation guide
  • Fatigue risk management systems
  • Train-the-trainer
  • OSA screening and treatment program
Thank You!


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