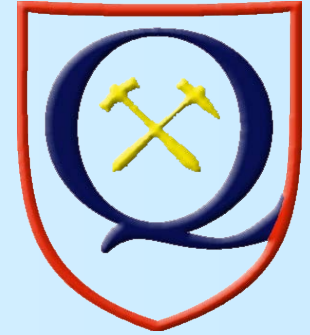


On the Road to Zero

MSD Prevention Strategies in the Transportation Sector



Business Case for Reducing MSD's

Centre for Health & Safety Innovation (CHSI)

5110 Creekbank Rd. Mississauga, Ont.

Wednesday February 18, 2009

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Teaching Occupational Health and Safety

- Technology
 - Legislation
 - Management Systems
-
- www.safetymanagementeducation.com/

Top 10 Reasons Why You Need To Know How To Manage Occupational Health And Safety

- 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - 6.
 - 7.
 - 8.
 - 9.
 - 10.
- 

Top 10 Reasons Why You Need To Know How To Manage Occupational Health And Safety

- 1. Because it's the law!**
- 2. What you don't know can hurt you and it can kill you!**
- 3. Because it makes good business sense**
- 4. Because you want to know your rights and responsibilities**
- 5. Because it's part of your job and you want to keep it**
- 6. To avoid lawsuits**
- 7. Because it's connected to everything human resources – recruitment/retention/internal responsibility/productivity/employee engagement**
- 8. To protect your company's reputation**
- 9. To avoid industrial relations disputes/grievances**
- 10. Moral obligations**

National



Perception

Canada



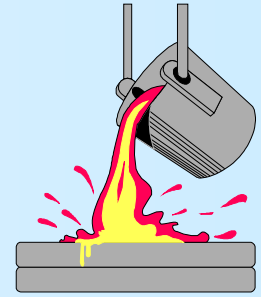
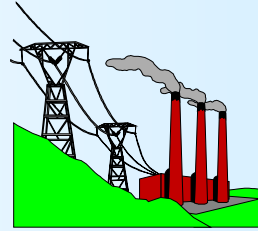
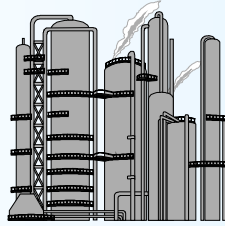
- 900 work-related fatalities
- 1 million workplace injuries
- \$5.3 billion in direct costs
- \$30 billion estimated total costs (direct & indirect)

Ontario



- 230 work-related fatalities
- 100,000 workplace injuries
- \$2.4 billion in direct costs
- \$14 billion estimated total costs (direct & indirect)

Source: 1996 Human Resources Development Canada report
(Historical Summary of Occupational Accidents & Their Costs in Canada 1970-1996)

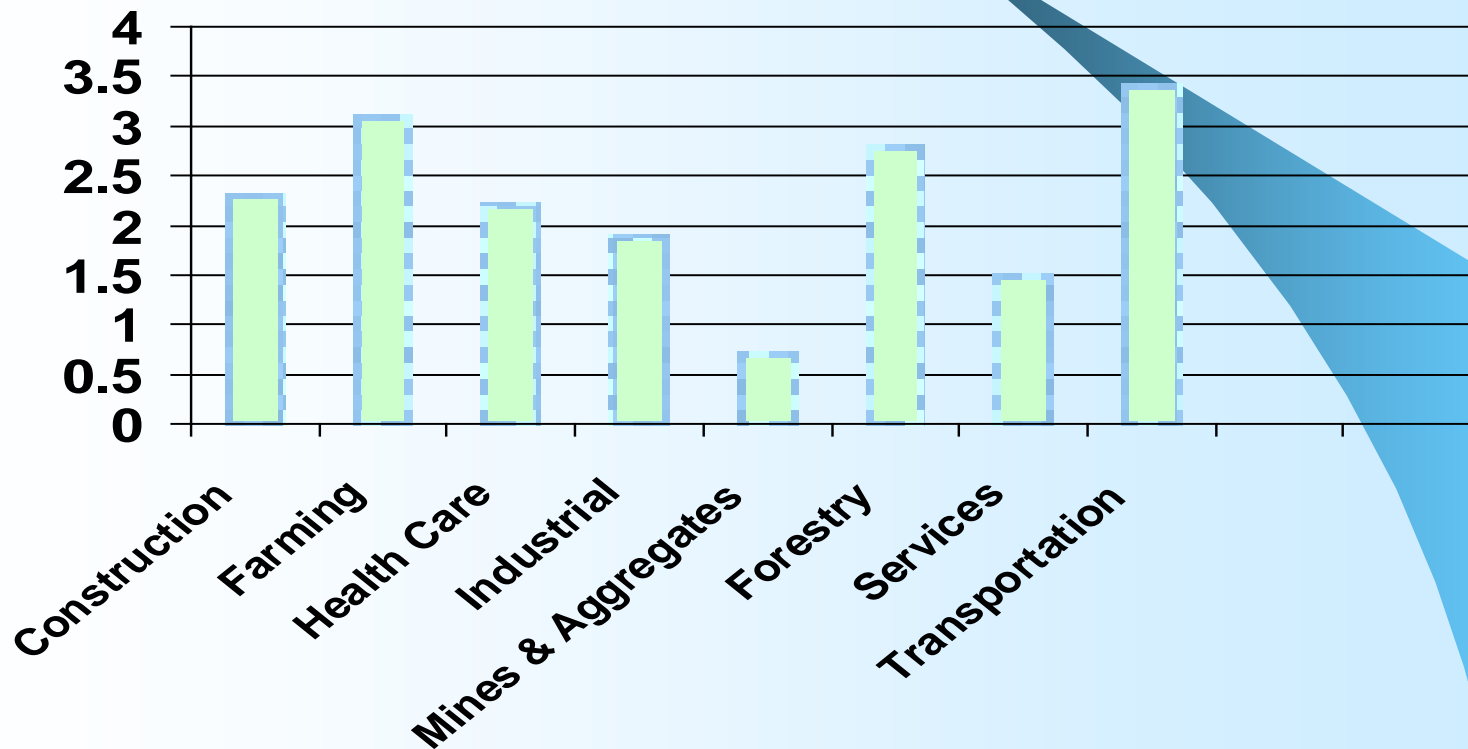


SECTORS

- Forestry
- Health Care
- Aerospace
- Police/Fire/Security
- Steel
- Public Institutions
- Automotive
- Education
- Utilities
- Service/Retail
- Manufacturing
- Petro-chemical
- Construction
- Mining

ISSUES

Ontario Lost Time Injuries By Sector 2005*

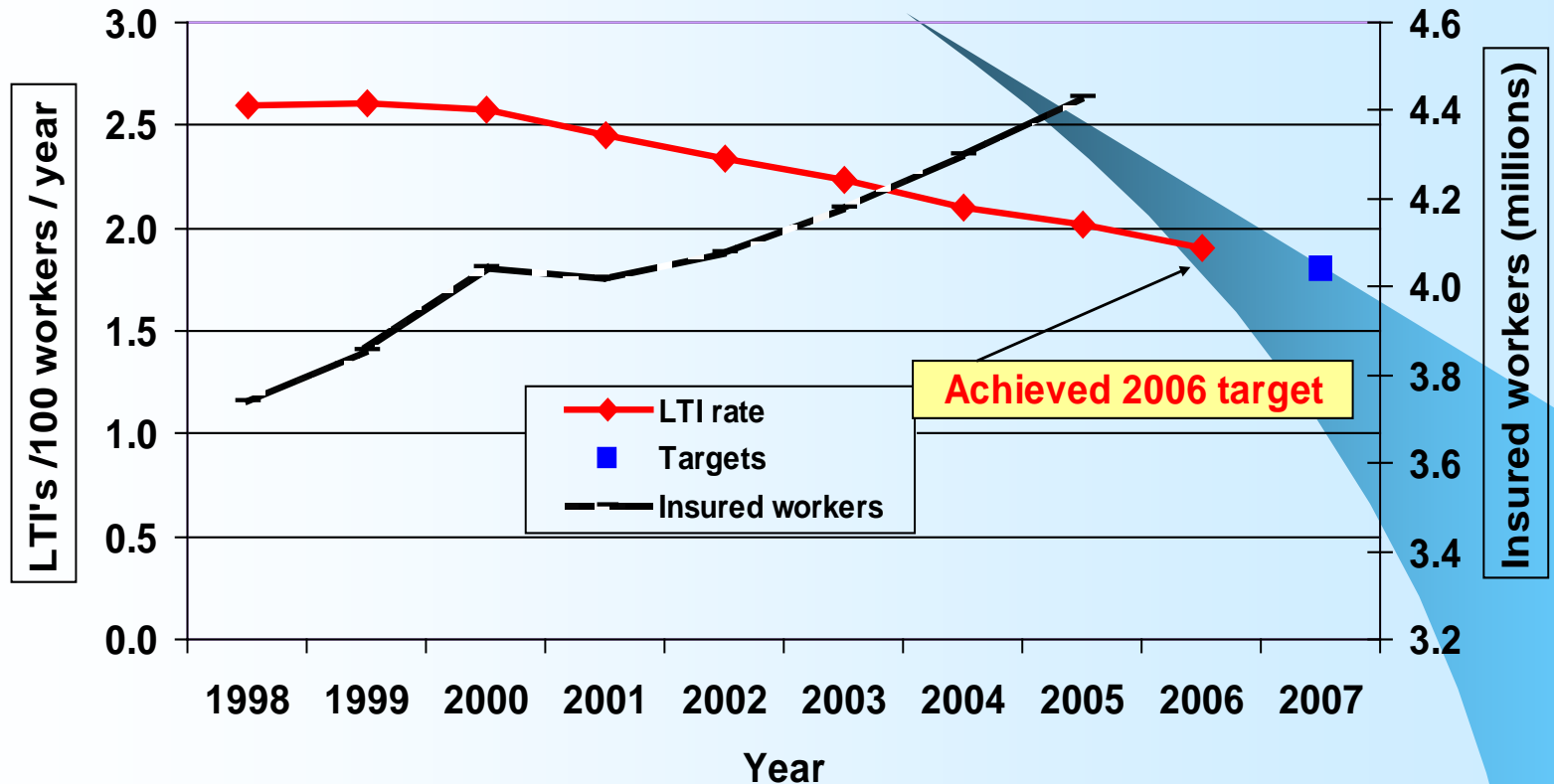


* Source: Worker Safety & Insurance Board as of October 31, 2006

Fatalities per 100,000 workers per year & Employment – 1976 to 2005



ONTARIO LOST TIME INJURIES



Results:

14,649 fewer LTI over the past two years than there otherwise would have been. Ontario businesses avoiding over \$960 million in costs associated with workplace injuries

INTERNAL RESPONSIBILITY SYSTEM CHAIN OF RESPONSIBILITY

CONTRIBUTORY RESPONSIBILITY INTERNAL

JOINT HEALTH &
SAFETY COMMITTEES

SAFETY
DEPARTMENTS

ENGINEERING
DEPARTMENTS

PURCHASING
DEPARTMENTS

DIRECT RESPONSIBILITY

PRESIDENT



MANAGER



SUPERVISOR



WORKER

CONTRIBUTORY RESPONSIBILITY EXTERNAL

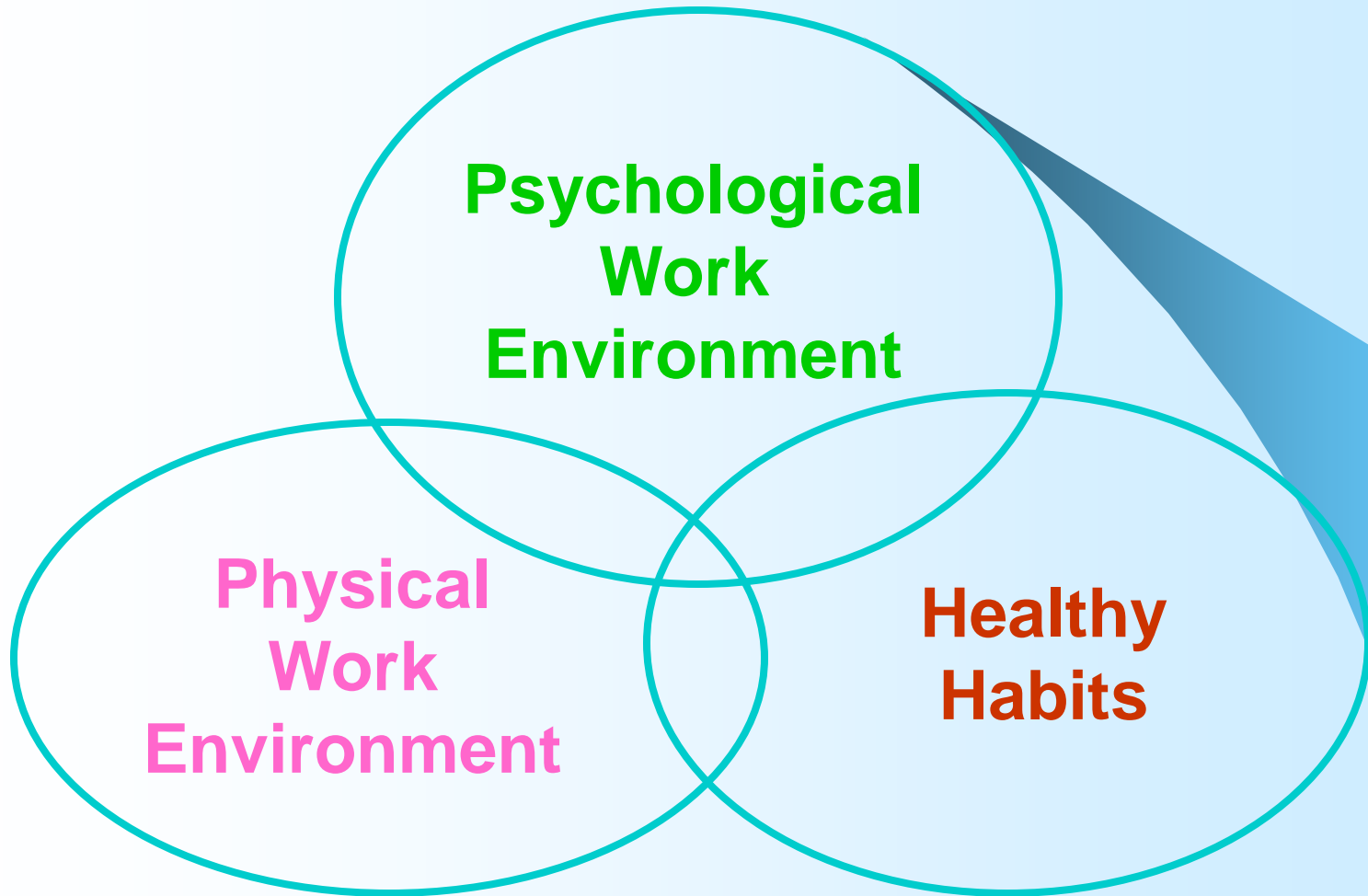
UNIONS

SAFETY
ASSOCIATIONS

SUPPLIERS

Ministry of Labour

Healthy Workplaces



The Business Case for Preventing MSD injuries

- Overall roughly 30% of LTI's are MSDs
- Average cost of LTI in General Trucking is \$42,693
- Average cost of LTI in Class E Transportation and Storage is \$31,987

(Source: 2009 WSIB
Premium Rates Manual)

Thanks Jennifer Marshall !

LTI rates – general trucking –

- 20044.26 per 100
- 2005.....4.23per 100
- 2006.....3.64 per 100
- 2007.....3.64 per 100
- 2008.....3.39per 100

On National Scale

- If Direct and Indirect Costs amount to \$30B - then 30% or \$10B can be saved if strategies to prevent MSDs are implemented

Can be used in determining appropriate scale of investment in research , training and regulatory attention – Return on Investment depends on LTI reduction . If the goal is Zero - investment can be high on national scale – The question remains what investments lead to greatest return : technology , training or management practices ?

On Firm Level

- If LTI average direct cost is \$ 42,000 (trucking) and indirect cost is \$150,000 - say total cost of injury is \$200,000
- In good times , say profit margins are 20% : that means you have to sell \$1M of goods to make up for the loss due to an LTI .
- In bad times if margins are low – say 5% : that means you have to sell \$4M to make up for the loss due to an LTI .

Business Results Through Health and Safety

MIR- 811

**Adapted from WSIB/CMA :
Business Results Through Health and Safety**



Evolution of PLAD Designs

1



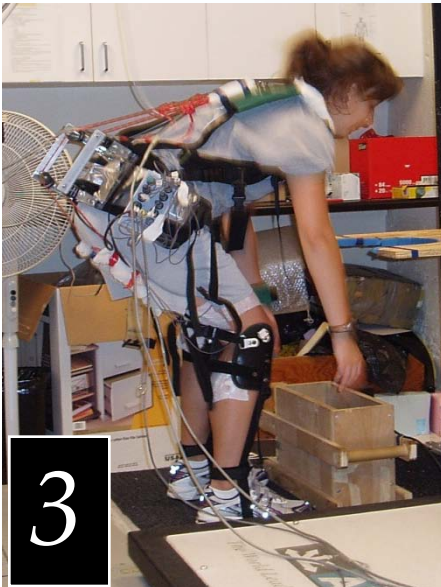
PLAD 1: Common bar and 6 elastic elements

2



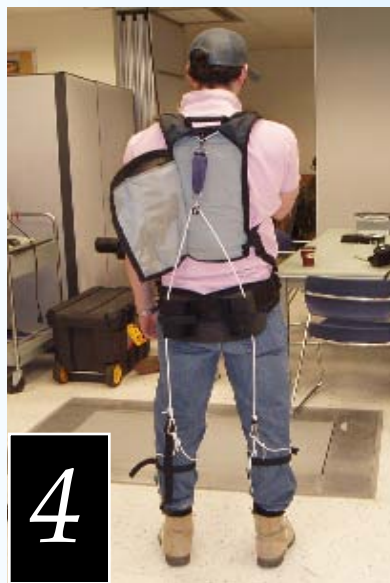
PLAD 2: Continuous bands and common bar

3



PLAD 3: Double bar and 2 elastic elements

4



PLAD 4: Broad Bar with 1 elastic element

5



PLAD 5: Housed within coveralls and uses multiple springs

Prototypes #1 & 2 of Mover's Pack



Testing in Lab and in Field



WHO?

WHERE?

???

WHEN?

WHAT?

???