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# Ontario's Occupational Disease Action Plan (ODAP): Turning the Plan into Action!

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# Introduction

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- Objectives and Need for a plan
- Ranking of Exposures
- 5 Priorities-Reinforced for 18/19
- ODAP by Approach and Accomplishments to Date
- ODAP Implementation
- Challenges, Feedback & Discussion-How can we grow Momentum?

# Occupational Disease Action Plan: Objective and Current Status



## Objective:

- To develop a system partner action plan aimed at reducing illnesses and fatalities associated with occupational diseases in Ontario workplaces
- The priorities determined based on the best available evidence (research and data sources), the current environment, and where the best opportunities exist to have an impact
- The Action Plan to build upon previous and ongoing work related to occupational disease and look for opportunities to address gaps in prevention.

## Current Status:

- The Occupational Disease Action Plan was finalized in December 2017 and implementation began in Jan 2018.
- Confirmed System Priority for 17/18 & 18/19

# Why an Occ Disease Action Plan?



- In 2015, there were 154 occupational disease deaths in Ontario, compared to 72 traumatic fatalities (Day of Mourning Fatalities Report).
- Occupational disease fatalities have outnumbered traumatic fatalities in each of the past ten years, and have increased each year since 2012, while traumatic fatalities have decreased.
- Leading diseases resulting in deaths: Mesothelioma (34.5%), Lung Cancer (28.5%)
- Between 2006-2015 (WSIB Sch.1):
  - ~125,000 occupational disease claims allowed, >\$950M in benefit costs
  - Long latency 3% claims, but >60% costs
  - NIHL 23% of all claims
- All significantly lagging indicators, plus many, many deaths and illnesses unrecognized, unreported and/or not allowed

\*Sources: WSIB, By the Numbers, 2015

# Meeting of Occupational Disease Research/Data Experts



- **Purpose:** To recommend where prevention efforts should be focused based on severity and prevalence research.
- **Research/Data Attendees:** Centre for Research Expertise in Occ. Disease; Occ. Cancer Research Centre; Institute for Work and Health; Centre for Research in Occ. Health & Safety; Public Health Ontario; Workplace Safety & Insurance Board
- Based on the available data and evidence, the research experts recommended:
  - Focusing on occupational exposures that lead to diseases vs. the diseases alone;
  - Ensuring new and emerging risks are included in the list of priorities
  - Strengthening surveillance systems to inform prevention efforts.

Occupational Diseases	Occupational Exposures
<ul style="list-style-type: none"><li>• Skin disease</li><li>• Respiratory disease (asthma)</li><li>• Noise induced hearing loss</li><li>• Cancer</li><li>• Infectious diseases</li><li>• Hand-arm vibration syndrome (HAVS) and other vibration related diseases</li></ul>	<ul style="list-style-type: none"><li>• Diesel engine exhaust</li><li>• Noise</li><li>• Allergens/irritants- Skin and Lung</li><li>• Asbestos</li><li>• Shift work</li><li>• Organic solvents</li><li>• Solar ultraviolet radiation</li><li>• Silica</li></ul>



# Reference Group





# ODAP Priorities

- General Occupational Disease Awareness
- Noise
- Allergens & Irritants (both skin & lung)
- Diesel Exhaust Emissions
- Emerging Issues- Nanotechnology , EMF/RF



# Approaches

- Intelligence & Decision Support
- Research & Data Management
- **Awareness**
- Advisory & Support Services
- Education and Training
  - **WSN Diesel JHSC Cert II Course developed**
- Legislation & Enforcement
  - **1 year Blitz-Noise**
  - <https://www.labour.gov.on.ca/english/about/consultations/oels/index.php>
  - **Consultation period ends May 4, 2018**
- Programs





# ODAP: Awareness

- Develop & implement a communications and marketing plan focusing on raising awareness of harm and prevention with respect to the priority exposures: noise and/or allergens and irritants and/or diesel hazards in the workplace, with an underlying theme of general occupational disease prevention (17/18 & 18/19 System priority)
- Coming Soon: [Preventoccdisease.ca](http://Preventoccdisease.ca)



# ODAP: Implementation Structure

- Implementation Team:
  - Coordinated by & Steven Grossman, PVO & Val Wolfe, OHCOW
  - Sets principles (hierarchies of Prevention & Control), Guides working groups
  - Reviews implementation, especially broad goals
  - Strategizes and plans
  - Maintain momentum, expand and strengthen network
- 5 Working Groups: EMR; Intelligence & Data; Noise; Diesel Exhaust; Allergens & Irritants
  - Conduct environmental scan of current initiatives & perceptions
  - Prioritize and activate relevant ODAP actions in that context
  - Identify deliverables and quantifiable measures of success

# ODAP WG: Noise



- Chair: Mike Russo, IHSA
- Initiated broad campaign on the hazards of noise in the workplace for International Noise Awareness Day, April 26 2017, with video, wordmark, wide-scale social media, online campaign, including OHCOW tool for workplaces to upload (crowd-source) sound-levels
- Ongoing promotion (awareness, education) of noise at system conferences (e.g. Partners in Prevention), Webinar
- System partner webpages and resources dedicated to noise created/updated
- MOL All Sector Provincial Noise Enforcement Initiative (April 1, 2017 – March 31, 2018)





# ODAP WG: Noise

Continuing ...

- Updated Wordmark, 5 things to do About Noise-Manual, Feedback/Follow-Up
- Expanded to 4 Webinars around:
  - March (World Hearing Day) – Focus for All “Regulation 381”
  - **April 25 (International Noise Awareness Day)- Focus for JHSC/H & S Reps/Workers- “5 Things to Do About Noise”**
  - May (Better Speech & Hearing Month)- Focus on H & S Professionals
  - October (National Protect your Hearing Month) -Focus on Employers/Supervisors



# ODAP WG: Diesel Exhaust

- Chair: Kevin Hedges, OHCOW

(Update 19 April 2018)



# Why is exposure to diesel exhaust an issue?



Organisation	Year	Comments
HEI <sup>1</sup>	1999	<b>Evidence not strong enough</b>
ACGIH <sup>2</sup>	2002	Recommended 0.02mg/m <sup>3</sup> (measured as REC)
ACGIH <sup>2</sup>	2003	Recommended limit withdrawn
MSHA <sup>3</sup>	2008	<b>Evidence becoming stronger -</b> Effective date for Occupational exposure limit (OEL) in the US for underground metal / non-metal 0.16mg/m <sup>3</sup> (TC) ~ 0.12 (REC)
IARC <sup>4</sup>	2012	<b>Strong evidence –</b> IARC monograph – confirmed carcinogen. <b>Lung cancer.</b>
NCI / NIOSH <sup>5</sup>	2010 - 2013	Study findings support a much lower OEL which may have a significant impact on UG mining.
HEI <sup>1</sup>	2013	<b>Expert panel established</b>
HEI <sup>1</sup>	2014 6 March	Workshop held in Boston – open to public, academia, regulators , industry and engine manufacturers.
HEI <sup>1</sup>	November 2015	<b>Expert panel review released. Strong evidence!</b> <b>Likely significant impact especially in UG mining!</b>

# Why is exposure to diesel exhaust an issue (the latest)?




Organisation	Year	Comments
<a href="#">BHPB</a> <sup>6</sup>	November 2015	After reviews by a leading Australian Epidemiologist and the IOM <sup>7</sup> BHPB (Global Standard) – Exposure must be <b><u>as low as technically feasible</u></b> . Interim target set at <b><u>0.03mg/m<sup>3</sup></u></b> (measured as EC NIOSH 5040)
<a href="#">Health Canada</a> <sup>8</sup>	2017	Human Health Risk Assessment for Diesel Exhaust. <b>Causal lung cancer, suggestive <u>bladder cancer</u></b> .
<a href="#">OCRC</a> <sup>9</sup>	2017	Burden of Occupational Cancer in Ontario. Policy Recommendations For Diesel Engine Exhaust: 1. Adopt occupational exposure limits of <b><u>0.02mg/m<sup>3</sup></u></b> (elemental carbon EC) for the mining industry and <b><u>0.005 EC mg/m<sup>3</sup></u></b> for other workplaces). 2. Upgrade or replace old on-road and off-road trucks and diesel engines. (OCRC, 2017 p.25).

## Latest from Ministry of Labour ([March 20 2018](#)) **current and proposed exposure limits**:

On and off-road diesel engines are widely used in other industries such as construction, transportation and warehousing. As an important first step in minimizing and controlling worker exposures to DPM in these sectors, the MOL is proposing to add a new listing and OEL for DPM measured as total carbon, in the Ontario Table (Table 1) in **Regulation 833 based on the revised MSHA limit of 160 µg/m<sup>3</sup>, (0.16mg/m<sup>3</sup>)total carbon (~0.12 mg/m<sup>3</sup> Elemental Carbon)(MOL, 2018)**. 45 day consultation period due May 4, 2018.



How do we **prevent occupational exposures** to diesel exhaust for “ALL WORKPLACES”

Items from <b>Terms of Reference</b>	Activities
2.1 Jurisdictional scan	Look for leading practices – Example requirement for diesels used in construction and tunneling in Switzerland to be fitted with diesel particle filters (DPF) <a href="https://www.dieselnet.com/standards/ch/nonroad.php">https://www.dieselnet.com/standards/ch/nonroad.php</a> Refer to VERT <a href="https://www.vert-dpf.eu/">https://www.vert-dpf.eu/</a> for certification of filters. Canadian Federal Requirements?
3.1 Raising awareness	Occupational Cancer Research Centre (OCRC) has worked closely with Workplace Safety North (WSN) and developed Infographics: Controlling diesel particulate matter from <a href="#">on-road vehicles</a> and <a href="#">underground mines</a> . <a href="#">OCRC / MIRARCO Lung Cancer and Prevention in Mining Conference</a> OCRC <a href="#">Report: Burden of Occupational Cancer in Ontario – Major Workplace Carcinogens and Prevention of Exposure</a> <b>Learn from Mining – <a href="#">Mining Diesel Emissions Council</a></b>
4.1 Deliver educational opportunities	WSN has developed a generic training module for Joint Health and Safety Committees (JHSC) <b>ODAP / OCRC has partnered with CARcinogen Exposure (CAREX – Canada) to deliver a Webinar on June 5<sup>th</sup>, 2018 from 11am – 12pm PDT, 2 – 3pm EDT</b>
5.1 Align system educational resources	<div style="text-align: center;">  <p><b>2018</b></p> <p><b>2019 and beyond</b></p> </div> <div style="text-align: right; font-size: 2em; font-weight: bold;">Learn from mining</div>
5.2 Identify gaps to develop new resources	
5.3 Review mandatory training initiatives to identify opportunities to strengthen prevention	
5.4 Align existing training initiatives	
5.5 New training initiatives	





## From **(CAREX – Canada)**

- Join us for a webinar on diesel exposure in workplaces, taking place June 5<sup>th</sup>, 2018 from 2 – 3pm EDT.

The goal of this webinar is to convey the importance of diesel engine exhaust as a workplace hazard and to discuss ways this hazard can be assessed and controlled in the workplace. There will be ample time for questions and discussion.

- This webinar is presented in partnership with the [Occupational Cancer Research Centre \(OCRC\)](#) and Occupational Disease Action Plan (ODAP) Working Group on Diesel Exhaust. Together, we will cover questions such as:
  - Why take action on diesel exposure in the workplace?
  - What workers are exposed in Canada?
  - What regulations and guidelines exist across Canada and internationally?
  - What control measures are recommended?



## Diesel Exhaust Webinar (June 5<sup>th</sup>, 2018 from 2 – 3pm EDT).

### Speakers include:

- **Cheryl Peters**, PhD: Co-Principal Investigator of CAREX Canada, Research Scientist at Alberta Health Services, and Adjunct Assistant Professor at the University of Calgary
- **Paul Demers**, PhD: Director of the Occupational Cancer Research Centre, Professor at the Dalla Lana School of Public Health at the University of Toronto, and Member of the ODAP Working Group on Diesel Exhaust



## Key facts about diesel engine exhaust (**The Facts**):

Diesel engine exhaust is a complex mixture of gases and particulates created during diesel fuel combustion. This mixture can contain other known and suspected carcinogens such as benzene, polycyclic aromatic hydrocarbons (PAHs), metals, and particulate matter.

The International Agency for Research on Cancer classifies diesel engine exhaust as a known human carcinogen (IARC 1) associated with lung cancer. It can also irritate eyes, throat, and bronchi, and cause light-headedness, nausea, cough, phlegm, and allergic reactions.

Approx. 897,000 Canadians are exposed to diesel engine exhaust at work, primarily in transportation-related occupations. This corresponds to approximately 560 lung cancers attributed to occupational exposure to diesel engine exhaust each year in Canada, based on 2011 cancer statistics.

For more information:

[CAREX Canada Estimates of Occupational Exposure – Diesel Engine Exhaust \(2014\)](#)

[CAREX-OCRC Fact sheet on the Burden of Occupational Cancer – Diesel Engine Exhaust \(2017\)](#)

(Courtesy of **Alison Palmer** – Executive Director (CAREX Canada)).



# ODAP WG: Allergens & Irritants

- Chair: Linn Holness from CRE-OD
- Reviewing research and data (e.g. academic literature, WSIB Data, Clinical Path Test Data, HSA consultant surveys, OHCOW cases, polled expert opinions) & determined focus areas for prevention work around lung and skin allergens and irritants
  - **Wet Work**
  - **Cleaning Agents**
  - **Isocyanates**
  - **Preservatives**
- Compiled and categorized all current system resources on the priority allergens and irritants
- Created a general backgrounder for each of the priorities and is working with the system partners to customize these new resources for their audiences.
- Going forward the working group will be
  - Developing a business case for the prevention of skin and lung exposures
  - Developing a dissemination plan for generic skin health fact sheets
  - Assessing the system needs for lung health resources



# ODAP WG: Data & Intelligence

- Chair: Victoria Arrandale, Occupational Cancer Research Centre
- Developing a plan (e.g. potential pilot project) for obtaining occupational exposure baseline data from Ontario workplaces to support action to prevent occ. Disease
- Develop and use existing exposure and disease surveillance data (e.g. WSIB data, OCRC Occupational Disease Surveillance System Project) to inform priorities, better target prevention efforts and generate research questions



# ODAP WG: Data & Intelligence

- Continuing....
- The Working Group is planning to develop an 2018-19 OSHPIP proposal for a potential pilot project that would digitize historical exposure data from Health and Safety Associations and other system partners
- Continue to review existing disease and surveillance (WSIB data, ODSS data, Patch Test Data) data gathered and analyzed to inform ODAP priorities & prevention efforts
- OCRC (CCO), MOL and the Ministry of Health and Long Term Care are in discussions regarding a funding proposal to establish an occupational disease surveillance program for the province building off OCRC's Occupational Disease Surveillance System (ODSS).



# ODAP WG: Electronic Medical Records

- Chair: Henrietta Van Hulle
- Cultivating multi-level inter-ministerial discussions on adding occupation to EMRs
- Developing a plan to promote the importance of tracking patient work-related information in Electronic medical records eg. Health Care & EMR user conferences
- MOL continues to engage OntarioMD on this issue, with the goal of developing a pilot project in Ontario.



# Let's keep Occ-omplishing Together!

- ODAP has created energy and momentum to address large, complex, and poorly understood issues
- Efforts & success affected by many external and competing internal factors
- Think of IT as Orchestra, Working Groups as Chamber Orchestras, but what we need is a Choir.
- Partnerships Key – welcome to the ODAP Choir!
- Challenge to achieve functional reach
- Priorities and Activities reviewed annually; Input & ideas always welcome 😊
- Watch for Occ-tober Symposium coming in October at CHSI
- Thanks for your interest and voice 😊