

**OHCOW**  
Occupational Health Clinics  
for Ontario Workers Inc.



# **2020-2021** ANNUAL REPORT

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This Annual Report provides a summary of OH COW's achievements from April 1<sup>st</sup>, 2020 to March 31<sup>st</sup>, 2021 and highlights some of our key priorities including: Promoting [Occupational Health Issues](#), taking action against [Occupational Disease](#), fostering [Workplace Mental Health](#), and championing vulnerability in the context of our patient, workplace, project, system, and provincial work.





# About Us

The Occupational Health Clinics for Ontario Workers Inc. (OHCOW) is a unique organization dedicated to protecting workers and their communities from occupational illness, disease, and injury; to support their capacity to address occupational hazards; and to promote the social, mental, and physical well-being of workers and their families.

We strive to accomplish this through the identification of workplace factors which are detrimental to the health and well-being of workers; by empowering workplace parties to make positive occupational health changes in their workplace and by providing information, knowledge, and organizational skills to the workplace parties to eliminate work practices that cause injury, illness, and disability.

We are a small organization of experienced and dedicated staff striving to make a significant impact in these key areas by learning from workers (and workplaces), leveraging research, translating knowledge, developing tools, and especially, cultivating partnerships and networks to broaden reach and impact. Together, we are making a difference.

## Mission & Vision

**Mission:** To protect workers and their communities from occupational disease, injuries, and illnesses; to support their capacity to address occupational hazards; and to promote the social, mental, and physical well-being of workers and their families.

**Vision:** The detection, prevention and elimination of occupational disease, injuries and illnesses, and the promotion of the highest degree of physical, mental, and social well-being for all workers



# Message from Chair and CEO

On behalf of David Chezzi (President & Chair of the Board) and Michael Roche (CEO) we welcome you to the 2020-2021 Occupational Health Clinics for Ontario Workers Inc. annual report.

The fiscal year 2020-2021 was significantly disrupted by the pandemic both at a strategic and operational plan level. Strategically, the Board's draft 3-year plan was postponed due to the System Plan being delayed. Operationally, we followed the draft plans for both the System and OHCOW Board but diverted significant resources to address issues relating to COVID-19.

OHCOW continues to prioritize the most significant hazards in the system with a prevention approach, including the hierarchy of controls and the precautionary principle. We also continue to prioritize our resources for the most vulnerable workers in the province.

To meet our goal of operating as effectively and efficiently as possible, we have updated our financial systems, HR systems and are in the process of updating our operational systems to include an electronic medical records format. These updates will allow us to operate seamlessly between both remote and office settings. By adapting to changing conditions it has meant that we have been able to continue to provide all of our services to workers even though various clinics were closed at different times during the 2020-2021 fiscal year due to the pandemic.

Operations for 2020-2021 included work on clusters with a dedicated group of staff. For the three funded projects (namely Rubber Workers, Peterborough, and McIntyre Powder) OHCOW met all transfer payment agreement objectives. The current number of clusters that we have not yet addressed continues to be a significant number at around 20 different groups of workers. For these cohorts we are working with Stakeholders and System Partners to efficiently and effectively address the needs of these workers.

We continue to work on our three main program areas including: Occupational Disease, Workplace Mental Health and Occupational Health Issues and have robust operational plans for each with key objectives and timelines.

COVID-19 has had a significant influence on all of us in all aspects of our lives. OHCOW has been profoundly challenged both professionally and personally. During these times trust is essential in Health and Safety. Workers need to have confidence in the organizations and individuals providing them services. By operating in a framework that uses the precautionary principal and evidence based medical scientific principles, OHCOW can operate in a competent, safe, and ethical fashion and professionally address hazards in the system. Some examples of the hazards we have tried to address during the pandemic relate to our work on modes of transmission, addressing the virus using the precautionary principle and making recommendation relating to ventilation and types of personal protective equipment. We also made recommendations to vulnerable worker populations during the pandemic including Temporary Foreign Agricultural Workers.

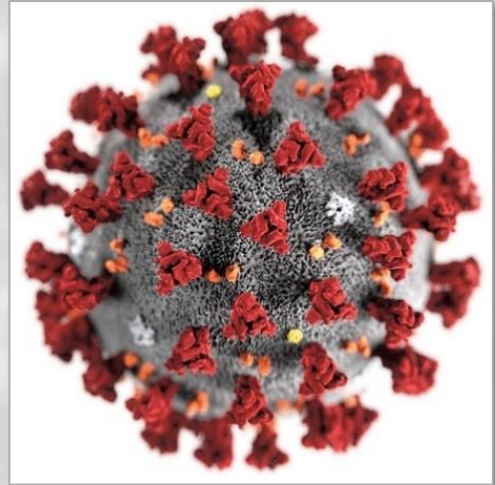
We continue to be grateful for the tremendous efforts of our staff and physicians for all the work they have done during the past year. Their lives have personally been disrupted but they have continued to provide services to the workers of the province and we truly appreciate all their efforts. We also want to thank our Board of Directors and the Local Advisory Committees for their guidance during these trying times. Lastly, we thank you for your interest in our 2020-2021 Annual Report and we encourage you to explore the rest of the report as well as our website at: <https://www.ohcow.on.ca/> to learn about the many wonderful services and accomplishments of our organization.

# COVID-19 Pandemic Response

## Our COVID-19 Response

As a Health and Safety Organization we pride ourselves on our people-first philosophy, with a priority for the health and safety of both our staff and our patients. Internally, our Leadership team started risk-response discussions in January and when the realities of the COVID-19 pandemic became clear we quickly transitioned to a blended work from home for staff and virtual visits for our patients, adapting our internal operations and supporting business continuity. By mid-March, all staff were teleworking except those involved with and supporting our critical day-to-day operations.

At the same time OHCOW's COVID-19 Response Team (CRT) was developed with an interdisciplinary membership of Nurses, Doctors, Hygienists, and Leadership to ensure a collaborated and informed response for the organization.



The CRT has been sharing information and best practices with our Provincial Health and Safety Committee, our Leadership team and all our Staff through regular email updates, all-staff conferences, and team meetings. This includes recommendations on how to ensure the safety of our staff, patients, and visitors as well as the development of protocols to guide when and how staff and patients might return to the office.

The CRT continues to monitor information on the emerging science of COVID-19, vaccines, and the provincial vaccination plan, as well as regional and community risk as we begin to look forward to a return to the office.

## OHCOW's COVID-19 Resources, Tools, and Research

COVID-19 has touched every aspect of our work, from moving our in-person events to virtual platforms; providing webinar information sessions for knowledge exchange and transfer: to being the focus of much of our research and new tool development. OHCOW has been taking an approach of "Staying Apart to Stay Healthy since March of 2020. (COVID related updates from [March 2020](#)).

The COVID-19 situation is a rapidly evolving threat to Ontario's public and occupational health in the early days of the Pandemic OHCOW was not fully aware of the long-term nature of this virus. Many of our earliest resources developed in direct reaction to the COVID-19 threat were stop gap, temporary solutions, which evolved into more fulsome resources as we began translating the evolving research and science.

OHCOW created a number of important [COVID-19 resources](#) including the [Regional Risk Tool](#), [Workplace COVID-19 Risk Management \(Control Banding\) Framework Matrix](#), [Ventilation Checklist](#), [Agricultural Workers and COVID-19 Safety Guidance & Resources](#). We provided key knowledge translation through the [Occ-COVID Webinar Series](#) and provided occupational health expertise, leading the OHS System Partners, through [ODAP](#), to update the [Prevent Occupational Disease](#)



[Website](#) to include COVID-19 resources. OHCOW staff also participated in the national [Best Brains Exchange](#) about transmission science and worker protection hosted by federal health and research agencies.

Once we determined this was a longer-term situation, we began offering education and information through webinar events and series, which have the advantage of being both online and interactive.

Our five [Mayday Mayday 2020](#) sessions focussed heavily on COVID-related issues in the workplace. [Virtual Home Office Ergonomic Assessments](#) became the norm. Additionally, the [Temporary Foreign Agricultural Workers \(TFAW\) and COVID-19 Safety Guidance & Resources](#) were revamped several times as updated guidance and new science became available. This included a series of videos along with a variety of English, Spanish & low-literacy resources, as well as other languages, [more below](#).

Other key activities included:

### **COVID Airborne Risk & Implications**

OHCOW's translation of SARS-CoV-2 transmission & COVID-19 prevention evidence has continued throughout the pandemic. Visit [COVID Airborne Risk & implications](#) for the latest: OHCOW Canadian Medical Association Journal Healthcare PPE published [Response](#), a recent [PHAC Evidence Brief](#) on aerosolization, several Occ-COVID Series of videos ([more below](#)), plus related [position papers and presentations](#).

### **Pandemic Experience Surveys**

Important insights around the mental health impact of PPE & Infection Control deficiencies were gained through the Healthcare and Generic Worker Pandemic Experience Surveys last spring. OHCOW also re-launched an updated version to capture any change to worker experience and continues to collect data presently. More information in the [Research and Data section](#) of this report.

## **Year of the Nurse**



The World Health Organization declared 2020 the International Year of the Nurse and Midwife to honour the 200<sup>th</sup> anniversary of Florence Nightingale's birth, the founder of modern nursing. The Year of the Nurse carried extra significance and meaning in the wake of COVID-19. As we celebrate and recognize nurses in Ontario and around the world this year, we owe them all a deep appreciation for their care and the sacrifices made during this crisis. The pandemic brought to light the courage and

commitment that nurses work under every day and showed the important role that nurses play in the community.

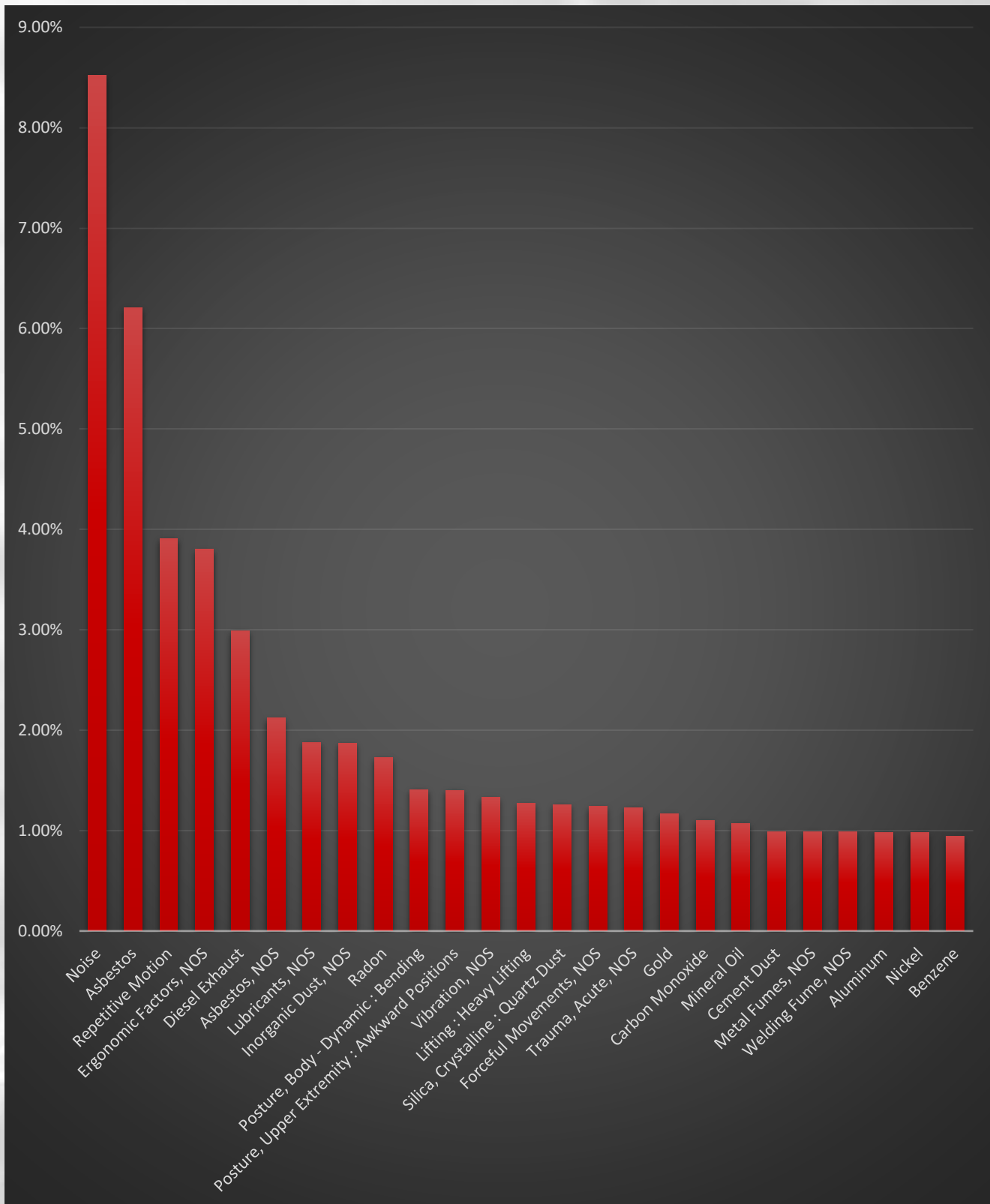
OHCOW is proud to honour and celebrate the Year of the Nurse and would like to take a moment to appreciate the care, professionalism, and dedication of our nurses during this year - and every year. Their knowledge, expertise and passion for Occupational Health Nursing is demonstrated everyday as they go above and beyond to help our patients (and their families) contend with workplace illness, injury, and disease. Thank-you to all our OHCOW nurses for everything you do and for being the amazing nurses that you are.



*Nursing Week 2021*



# Most Prevalent Case Exposures in the Past Five Years



# Prevention Through Intervention

It is critical to be able to identify workplace exposures, past or present, and how they affect the health of workers. Recognizing causal relationships allows for the ability to support claims when warranted, but more importantly, to advise workers, workplaces and even industries on how to prevent such exposures in future.

## A Paramedic/Firefighter's Fight for a Non-Hodgkin's Lymphoma Claim More than Meets the Eye

### Background

OHCOW was presented with a case involving a Firefighter who was short a few years employment as a Firefighter, for his claim for Non-Hodgkin's Lymphoma. The patient was diagnosed at the age of 52 with the disease. The WSIB Policy calls for 20 years of work as a Firefighter to be allowed a claim for Non-Hodgkin's Lymphoma. The patient only had 16.5 years of exposure. Our goal was to find more duration of exposure versus "exposure" which is the typical goal with regards to complex patient files which are presented to Occupational Hygienist's at OHCOW.



### Intervention/Approach

The patient was able to retrieve overtime related evidence during his work as a Firefighter, through Paystubs. Approximately 188 hours of overtime for an 11-year period was calculated and for which we presented in the claimant's file. However, this was not enough to meet the WSIB Disease Policy. The patient also worked as a paramedic for 22 years prior to becoming a firefighter. At first glance it was assumed we would not find suitable exposures from the patient's role as a paramedic. The WSIB did not consider this role in their initial assessment and denial. In collecting data through interviews with the patient and further exposure characterization, it was found that the patient was exposed to similar firefighter related exposures, which firefighters incur namely through Non-Fire Suppression related activities. The patient was stationed in Fire Halls/Stations for 22 years of his career as a paramedic. We researched the various exposures firefighters incur at Fire Stations and were able to relate those exposures to the patient, due to the fact that he was stationed in the fire halls between calls. The exposures were namely to polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and diesel engine exhaust (DEE). Moreover, firefighter research shows that work in the various work zones at a fire, such as Hot, Warm and Cold Zones, can also lend to exposures. The patient worked in the Warm and Cold Zones of fires he attended in his paramedic role. The research revealed that these zones are not free of contaminants, inclusive of the Non-Hodgkin's Lymphoma related exposures such as (PAHs, VOCs and DEE). Furthermore, diesel engine exhaust exposures are incurred by both paramedics and firefighters during their travel to and from the fire scenes as well as within the fire halls. During the time the patient was stationed within fire halls, there were no engineering controls to capture the Diesel Engine Exhaust emitted from the fire apparatus during fire runs (start and shut off of engines within fire halls). Track back of contaminants within the fire halls and vehicles is inevitable in both jobs. The Patient as a paramedic would wear his paramedic uniform to and from the fire scene. However, over the years, firefighters implemented decontamination procedures for their bunker gear, unlike the paramedics. Thus, we were able to conclude that the patient had several cumulative years of exposure to Non-Hodgkin's Lymphoma causing exposures to

PAH's VOCs and Diesel Engine Exhaust during his 22 years as a paramedic. Our research also revealed that exposure to diesel engine exhaust and NHL claims are generally considered with more than 10 years of exposure. The patient had approximately 34 years of exposure to diesel engine exhaust based on our findings.

### OHCOW Impact

This case was an eye opener in the sense that historic job titles and the protocols workers had to implement in their daily work cannot be overlooked when considering exposures from the workplace and their possible relation to Occupational Disease. The exposures which Firefighters incur in their daily work is not primarily from Firefighting alone. NON-Fire Suppression related activities are as critical in a Firefighters exposure history. In this particular case, the Paramedic, who was stationed in Fire Halls for over 22 years, would have incurred bystander exposures to the exposures Firefighters incur within Fire halls as well as within the Fire Zones. This was namely due to the processes and protocols that paramedics in this patient's experience were involved in during his time of employment. This is why it is clear that each individual's story, each individual's employment history is so unique and so relevant when it comes to taking exposure histories and writing up Retrospective Exposure Profiles. At the end of the day, Occupational Hygiene is generally defined as the art and science dedicated to the anticipation, recognition, evaluation, communication, and control of environmental stressors in or that arise from the workplace and that may result in injury, illness, impairment, or affect the well-being of workers and members of the community. OHCOW Occupational Hygienists all apply their unique experiences to their Clinical work and years of experience in applying the science and strategy on cracking cases that come forward to the Clinics. As professionals we may all approach the case differently, but at the end of the day, the end goal is the same. The aim is finding the clues of exposure and leaving no stone left unturned.

### Dupuytren's Contracture Background

The worker was referred to OHCOW by the union with respect to their diagnosis of bilateral Dupuytren's Contracture developed during their employment as a welder since 1970.

The worker developed Dupuytren's Contracture over the third metacarpal (middle finger) in the right hand and of the second metacarpal (index finger) in the left hand. The claim was originally denied by the WSIB stating "...unable to establish that your regular duties as a welder were the direct cause of this diagnosis."



The OHCOW physician stated that "Recent epidemiological studies including a well-done meta-analysis have indicated that both manual work and exposure to hand-arm vibration are independent risk factors for Dupuytren's contracture."

### Intervention/Approach

The worker's union advocate reached out to OHCOW and requested that we review the worker's workplace exposure history and analyse if the exposures that he experienced were related to the diagnosis of bilateral Dupuytren's Contracture which developed in 2010.



He worked 40 hours per week as a welder/fitter. His job entailed working with vibrating tools with forceful gripping, for up to 30-50% of the workday. The worker noted that his work would vary from day to day and the time of the year and there were times when he would perform grinding for a month at a time especially when constructing and repairing spoons which is a device that is used to sample molten metal.

The OHCOW ergonomist reviewed the worker's exposures noting the combination of gripping and vibration and examined them both separately. He stated that using vibrating tools, requires high grip force to hold and operate the tool. The hands will often get fatigued and numb when holding the vibrating tool for extended periods. It should be noted that the worker wore gloves for protection and that wearing gloves will impair sensation of touch and grip force is increased. With the lack of sensation, this will lead the worker to squeeze harder thereby increasing the rate of vibration absorption. While the gripping increases, this makes the muscles stiffer compared to a loose grip when the tendons are slack. The ergonomist concluded that the worker had no familial history of Dupuytren's Contracture, the type of tasks that he performed, and the equipment used that it was likely that the exposure to vibration, forceful gripping and the use of gloves materially contributed to the development of Dupuytren's Contracture.

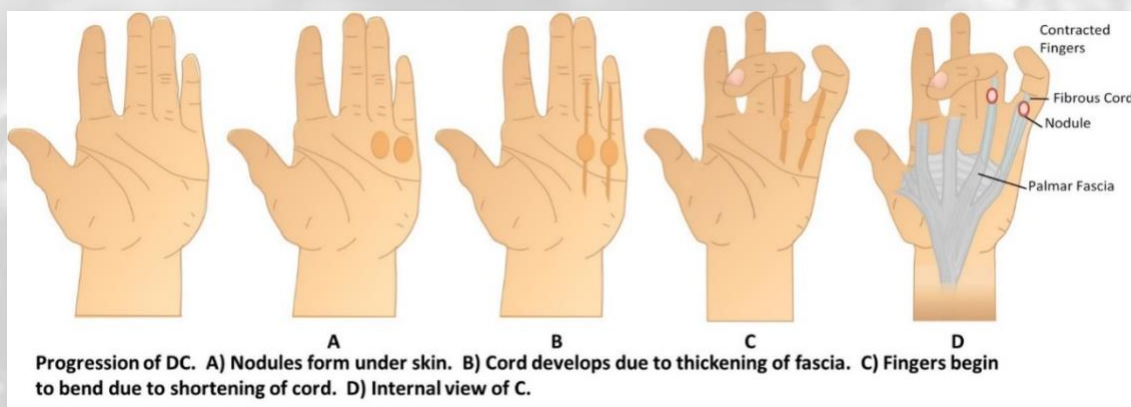
The OHCOW physician also reviewed the worker's file and concluded that based on the most recent epidemiological evidence, manual work with his hands and his exposure to hand-arm vibration for many years made a material contribution to the development of Dupuytren's contracture.

### OHCOW Impact

The worker's advocate presented the OHCOW's ergonomist and physician reports to WSIB for entitlement to health care benefits as a result of the worker's job duties. In order for a claim to be allowed, there are five criteria that must be met - the employer, worker, personal work-related injury, proof of accident and compatibility of diagnosis to accident or disablement history. WSIB stated that all of the criteria have been met. WSIB also considered both of the reports that were submitted by OHCOW.

### Moving Forward

OHCOW has begun an in-depth review and critique of the WSIAT discussion paper of Dupuytren's Contracture which is often used as a resource to deny worker's compensation claims. The document itself is outdated and full of a number of errors and inconsistencies. In addition, a new proposed mechanism for injury for the development of Dupuytren's Contracture that has not been previously considered or researched has been developed that would potentially result in denied claims for Dupuytren's Contracture being reopened and reconsidered.

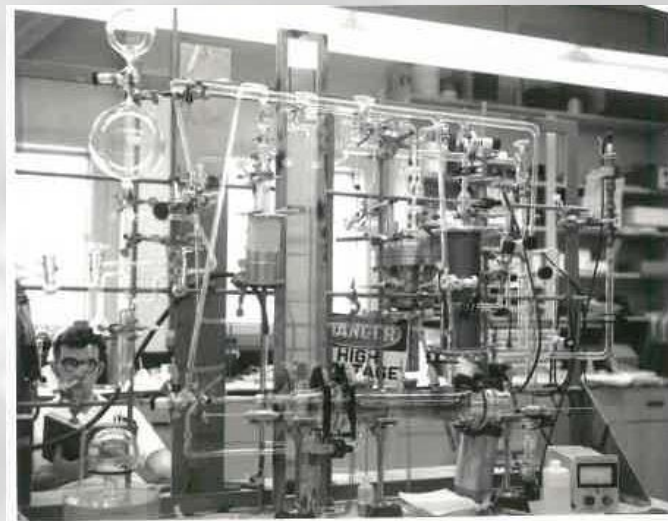


## Chemical Technician develops Acute Myelogenous Leukemia (AML) after working with pure benzene and exposure to ionizing radiation

### Background

The worker was referred to OHCOW by the union with respect to the diagnosis of acute myelogenous leukemia (AML) and possible exposures that may have contributed to the development of the disease.

According to information provided by the worker and from the National Dose Registry (Health Canada) for ionizing radiation exposure he worked as a chemical technician in a federal government laboratory from 1966 until 1997 when he retired.



### Intervention/Approach

The worker's union advocate contacted OHCOW and requested that we review the worker's workplace exposure history and analyze if the exposures that he experienced were related to the diagnosis of AML in 2020.

The OHCOW hygienist reviewed the worker's exposures to benzene considering both airborne and dermal routes of entry. Airborne concentrations were evaluated with models to determine estimated air concentrations (no historical monitoring data was available) and duration of exposures. Dermal exposures were evaluated using both quantitative and qualitative methods. The worker used pure benzene to clean glassware and equipment with a soaked cloth and had no protective equipment (respiratory or skin). The room was not designed for use with controls to mitigate chemical exposure - i.e., there was no local exhaust and minimal (just for a standard office room) general dilution ventilation. Exposure models indicated airborne benzene would have been present in levels at or approaching exposure guidelines and there was high potential for skin contact at levels of concern. Ionizing radiation exposure records from the National Dose Registry (Health Canada) for the worker were also reviewed and compared with literature references reporting on the link between ionizing radiation exposure and the development of AML.

The OHCOW physician also reviewed the worker's file and prepared a letter for inclusion with the WSIB case file.

### OHCOW Impact

The worker's advocate presented the OHCOW's hygiene and physician reports to WSIB for entitlement to health care benefits as a result of the worker's exposures. It is hoped that the input from OHCOW will lead to a favorable decision for the worker by the WSIB.

### Moving Forward

OHCOW has begun review of additional diseases relative to occupational exposures at the facility.



## COVID-19 and Its Effect on Workplace Ergonomics

### Background

COVID-19 and the global pandemic has forced many people to vacate their regular work settings and work from home. Since the transition from traditional work to working from home came on quite rapidly, many people were not prepared to work at home. Many people lacked adequate workspaces within their homes. A lot of people also did not immediately have access to the correct computer equipment required to perform their jobs. This led to an increase in risk factors (awkward postures, static postures, repetition, and force) associated with the acquisition of Musculoskeletal Disorders (MSD) such as neck strain, back strain, shoulder strain, epicondylitis, and carpal tunnel syndrome.

Since the Ergonomists from OHCOW had also been forced to work from home, they quickly realized that working from home without an adequate workspace and correct office equipment led to poor Ergonomics with the associated increased risk for MSD.

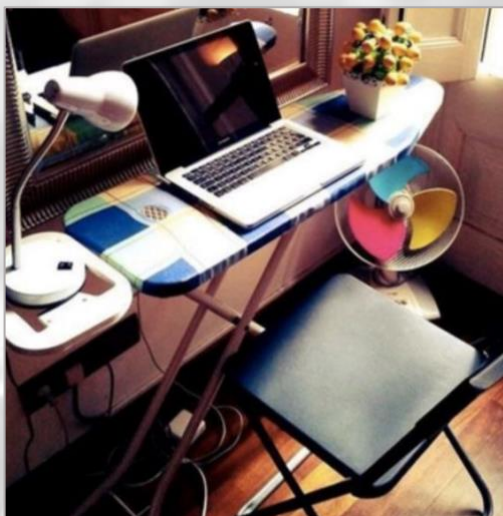
### Approach

In an attempt to help the workers of Ontario set up their home workstations in such a manner as to avoid as many MSD risk factors as possible, several webinars on the subject were designed and performed by OHCOW Ergonomists:

- [Ergonomic Tips for Temporary Home Workstations](#) (in partnership with WHSC)
- [Ergonomic Tips for Temporary Home Workstations - Three Months Later](#)
- [The Impact of COVID-19 on Workplace Ergonomics](#)

Feedback from these webinars as well as other workplace inquiries demonstrated that there was a necessity to also help workers directly with their home workstation ergonomics. This led to the implementation of the “Virtual Home Office Ergonomics Assessment” service at OHCOW.

The service involved obtaining information from the worker regarding their current workstation setup, equipment, and work practices, along with any injuries or illness they may have been suffering from. The OHCOW ergonomist then conducted a “virtual” ergonomic assessment via either video or telephone. Ergonomic recommendations (based on the current CSA Z412 Standard: “Office Ergonomics - An application standard for workplace ergonomics”) were provided during the assessment. Some of the recommendations provided even utilized household items to enhance the ergonomics of the workstation setup.



Ironing board as height adjustable work surface

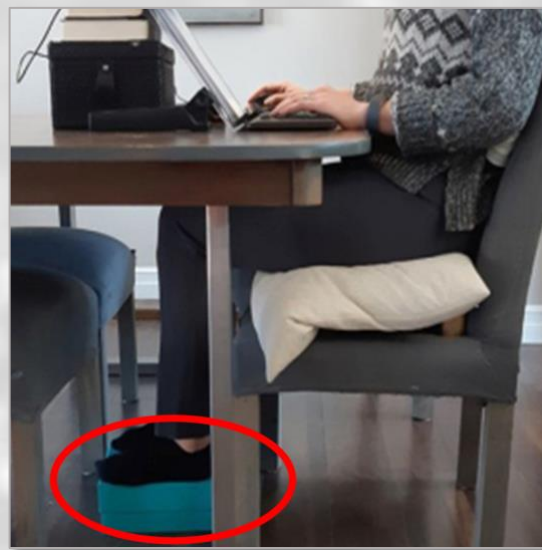


Binder as document holder





Pillows to create better chair fit



Box to serve as footrest

### OHCOW Impact

OHCOW's Ergonomists have performed numerous [Virtual Home Office Ergonomics Assessments](#) for Ontario Workers as well as many additional virtual workplace presentations/webinars on the same or similar topics.

As the effects of COVID-19 and the global pandemic have continued, OHCOW's Ergonomists have now also begun performing "virtual" Ergonomic assessments for "traditional" office and industrial work settings.

By adding "virtual" Ergonomic assessments to our available services it has allowed OHCOW to reach many more Ontario workers quicker and easier than we could have in the past.

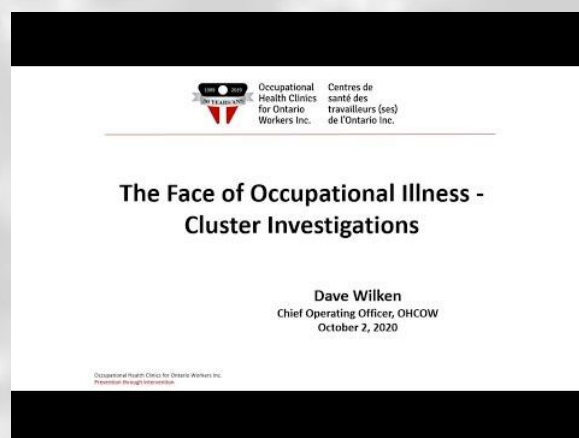
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# Key Priority: Occupational Disease

OHCOW through their clinical work and occupational cluster investigations provide a unique perspective on a full circle occupational disease prevention approach (primary, secondary & tertiary). OHCOW created a number of important [COVID-19 resources](#) along with its ongoing Clinical/Cluster Investigation work. OHCOW also hosted an [Occupational Disease Winter Webinar Series](#) which included sessions around Cancer Adjudication and Policy-Making (Dr. Paul Demers -OCRC and Dr. Katherine Lippel -U of Ottawa, Robert DeMatteo), McIntyre Powder & Neurological Disorders (Dr. Paul Demers-OCRC), Is Your Cancer Work-Related (OHCOW), Work-Related Heart Disease (OHCOW), Investigations 101: Using Retrospective Exposure Profiles to Assist in Proving Cases of Occupational Diseases for Workers Compensation Claims (OHCOW).

## Occupational Disease Cluster Investigations

Occupational disease cluster investigations are opened at the request of individuals, worker organizations and community groups who suspect that health conditions that a group of workers have in common were caused by exposure in their shared workplace or industry. OHCOW approaches these reported clusters at both the group and individual level, pursuing several goals: to evaluate common exposures and identify those that should be reduced or eliminated (primary prevention); to screen individuals for early signs of disease so that treatment can mitigate harm and workers can avoid compounding exposures (secondary prevention); to provide individualized occupational hygiene and medicine assessments to workers and the family members of deceased workers to help them decide whether to file claims for workers' compensation and to be used as evidence in that process (tertiary prevention). This work also helps move forward research and raise public awareness of underappreciated workplace hazards and medical conditions, with recent work focusing attention on the neurological and cardiovascular effects of exposure to nanoparticles, the effects of endocrine disrupting chemicals and the work-relatedness of many cases of sarcoidosis and idiopathic pulmonary fibrosis. In addition to reviewing these issues within individual clusters, internal OHCOW working groups work on issues common to more than one cluster project, including occupational causes of cancer from the very common (prostate cancer) to the extremely rare (cancer of the parotid gland).



See the video above for a review of ongoing work on various clusters as presented by OHCOW staff and workplace partners at the 2020 [Occ-tober](#) event.

## Peterborough Satellite Office

Our satellite office in Peterborough was officially opened in 2018 but OHCOW has been actively engaged with the Peterborough community, especially workers at General Electric and Pebra/Ventra Plastics and their families, since 2004.

Work during the year focussed primarily on Pebra/Ventra Plastics, with the release of a historical exposure report concentrated on the Pebra Plastics period (1986 to 1996), reviews of all current and

closed OHCOW files for workers at the plant and follow-up calls to approximately 120 workers or survivors with closed files for whom contact information was available. These calls sought updates regarding health status and WSIB claims and resulted in the reactivation of more than 50 files through a multi-stage remote intake process that updated consent documentation, full health histories and work histories.

General work on exposures and health conditions of concern was also begun, often in tandem with other cluster investigations. Salivary gland, prostate and other cancers, chronic toxic encephalopathy and endocrine disrupting chemicals were identified as issues of particular importance for this group of workers. OHCOW's Peterborough project will continue with these issues, as well as more active work on groups of files from the GE plant, particularly cancers and non-malignant lung diseases.

For more about our Peterborough office, including GE Peterborough and Pebra/Ventra Plastics and 2020's Report on exposures during the Pebra Plastics period (1986 and 1996), visit our [website here](#).

You may also wish to view recordings of our information sessions:

- [Pebra/Ventra Plastics Information Session](#) - Wed, 14 Oct 2020
  - [Ventra/Pebra and Rubber Workers Project Updates](#) - Tue, 24 Nov 2020
- 

### McIntyre Powder Mining Cluster

McIntyre Powder is finely ground aluminum dust that was inhaled by over 27,000 Ontario miners between 1943 and 1979, under a compulsory workplace prophylaxis program that was theorized to prevent the lung disease silicosis. Since 2016, OHCOW has been assisting former miners who were exposed to McIntyre Powder and investigating the work-relatedness of their health issues.

Following the May 2020 release of the ground-breaking Occupational Cancer Research Centre (OCRC) study on McIntyre Powder and neurological disorders, OHCOW held an information session with that study's principal investigator, Dr. Paul Demers. He presented and discussed the results of the OCRC data linkage study that resulted in WSIB recognizing claims for Parkinson's related to McIntyre Powder exposure. The study also found elevated rates of Alzheimer's and motor neuron disease among miners in general as compared to the broader population of Ontario.

More on the information session, including video and a link to the study, on our [website here](#).

OHCOW's work investigating diseases found in the McIntyre cohort, including neurological and cardiovascular disease, lung and other occupational cancers, sarcoidosis and idiopathic pulmonary fibrosis continues. Individual occupational hygiene and medicine assessments are provided using the best available data from the Ontario Mining Exposures Database (OMED) and individuals' Mining Master File records. To date, over 600 miners and surviving family members have registered with OHCOW as part of this project, with full health and work history information collected on over 500 miners and entered into OHCOW's McIntyre Powder Project Database. Work on individual medical and hygiene assessments, as well as scientific papers for publication continues.

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## Ontario Rubber Workers Cluster Investigation

The Rubber Workers Project seeks to investigate the cause of cancer clusters that have occurred in workers employed in the rubber industry in the Kitchener, Waterloo, and surrounding area.

OHCOW has worked with United Steelworkers (USW) Local 677, the Office of the Worker Adviser (OWA) as well as the Steelworkers Organization of Active Retirees (SOAR) since 2002 to provide information and objective hygiene and medical assessments to workers from the rubber industry in Kitchener where more than 6,000 workers were employed in tire fabrication plants before the last plant closed in 2010.

### OHCOW's Role

In 2020/21 OHCOW continued to follow up on these cases and provided occupational hygiene and medical assessments of possible work-relatedness for any rejected claims where additional information or research had bearing.

We have also:

- continued a project to develop an industry job exposure matrix, extracting data from case files, union health and safety records and MOL industry history.
- sought plant drawings as a Freedom of Information request from the municipality for use as reference documents.
- connected with researchers from the Occupational Cancer Research Centre (OCRC) to look for parallels in a large historical dataset they manage (the ODSS) and similar industries.

Our work with the rubber workers continues, with areas of focus including investigations into:

- Prostate and Bladder Cancer
- Leukemia
- Malignant Lymphoma (including multiple myeloma and other lymphopietic cancers)  
Stomach and Oesophagus Cancers
- Larynx and Lung Cancers

Retrospective retiree focus groups to fill in exposure knowledge gaps continue to be planned but remain delayed by COVID safety concerns.

## Neelon Casting Cluster Investigation

The Neelon Casting foundry operated in Sudbury under several owners and names from the mid-1970's until it was closed in 2007, three years after being bought by US-based competitor The Affinia Group. United Steelworkers (USW) Local 2020, which represented the more than 2,000 workers employed over the life of the foundry, contacted OHCOW in July 2020 for help in providing objective hygiene and medical information and individual assessments to those workers. A concerning number of deaths and illnesses from potential occupational diseases had been noticed within a Facebook group of past Neelon employees. Local 2020 Disability Services representative Jessica Montgomery was assisting workers and families with WSIB claims, and WSIB had established a dedicated team to work on the files.

OHCOW immediately established a framework for working with Local 2020, began consolidating information from previous OHCOW work with Neelon workers, and organized government inspection records and other historical information gathered by the local union into an electronic library for reference and for sharing with the WSIB.

In October 2020, OHCOW organized a web-based virtual information session in partnership with USW, MLTSD and WSIB to inform former Neelon workers and family members on health conditions of concern, the roles of the different organizations, and how to initiate occupational disease claims through Local 2020 (more information and video available on our [website](#)). Via organizing within the Facebook group, local media coverage of Local 2020's efforts and this event more than 150 claims were initiated by the end of 2020-2021.

In addition to gathering medical records and work histories from individual workers, OHCOW committed to producing a historical exposure report detailing the work processes and conditions throughout the history of the Neelon Casting facility. To that end, an advisory committee of Neelon workers was assembled with the help of Jessica Montgomery and USW 2020 staff, with group meetings and drafting led out by Dale and Bob DeMatteo who have developed similar reports on the General Electric and Pebra/Ventra Plastics plants in Peterborough. This report is expected to be publicly released during the first half of 2021-2022 and serve as a reference for numerous similar Ontario workplaces, many of which have also ceased operations in recent decades.

### **Ontario's Occupational Disease Action Plan (ODAP)**

OHCOW continues to lead the Occupational Disease Action Plan (ODAP) promoting action through collaboration with the Ministry of Labour, Training, and Skills Development (MLTSD) -Prevention, Operations and Policy divisions), Health and Safety Associations, Specialized Research Centres (such as the Centre for Research Expertise in Occupational Disease and the Occupational Cancer Research Centre) and the Workplace Safety and Insurance Board, as well as the Ontario Lung Association, Public Health Ontario and the Ministry of Health and Long-Term Care. With the plan in its fourth year, the COVID-19 pandemic urgently shifted ODAP's occupational disease prevention efforts to bring the latest evidence-based science and solutions to workers and workplaces. A COVID-19-specific area was added to the Prevent Occupational Disease website [www.preventoccdisease.ca](http://www.preventoccdisease.ca) along with many updated resources posted by each health and safety system partner.

Popular culture awareness of occupational disease and the hierarchy of control due to the COVID-19 pandemic was recognized and leveraged by OHCOW and ODAP to continue long-latency occupational disease prevention work aligned with its continuing priorities under the guidance of its 6 Working Groups: Noise, Allergens & Irritants, Diesel Exhaust Emissions, Respiratory Hazards, Intelligence & Decision Support, and Electronic Medical Records.

ODAP activities and actions have increased provincial awareness through targeted collaborative communications and knowledge translation sessions.

#### **ODAP Year Four Highlights:**

- **Respiratory Hazards Working Group:** OEL Adjust Tool ([see below](#))
- [Physician/Clinician's Toolkit](#)
- Updated COVID-19 resources & continued curation of [www.preventoccdisease.ca](http://www.preventoccdisease.ca)
- Silica Control Tool Pilot Project planning
- COVID Tools & Resources ([see above](#))
- Annual Occ-tober Symposium/webinar



# Occ-tober

Impact = Knowledge + Change + Action

OHCOW's 6<sup>th</sup> Annual Symposium supporting the Occupational Disease Action Plan (ODAP) aligned the efforts of the Occupational Health and Safety System and partners toward Occupational Disease Prevention and minimizing hazardous exposures in Ontario workplaces in order to reduce the incidence and burden of occupational disease whether chronic/long latency or more acute/infectious.

## Session 1: The Face of Occupational Illness - Cluster Investigations

- Words of Welcome: Chief Prevention Officer
- OHCOW staff and Project Contributors - The Face of Occupational Disease-Cluster Investigations

## Session 2: Knowledge Mobilization for Occupational Disease Prevention

- Using Scientific Evidence to Help Determine the Work-Relatedness of Cancer
- The Occupational Disease Action Plan - Where we're At and Where we're going
- A Passport for your Work Journey
- COVID - An Occupational Disease - A Report from Best Brains Exchange - Transmission Routes for COVID-19 - Implications for Public Health

## Session 3: Change for Occupational Disease Prevention

- Update on the National Chemical Management Plan
- Asbestos Free Canada

## Session 4: Tools & Action - How you can Prevent Occupational Disease

- Exposure /Control Banding
- Occupational Exposure Limit (OEL) Adjustment Tool ([see below](#)) - Why and How
- The Silica Control Tool - A “Living” Risk Assessment Tool for the Construction Industry
- COVID Regional Risk Tool



## Session 5: Leading into November - Lung Month

- Diesel Calculator & Background
- Preventative Maintenance in Mining to reduce Diesel Emissions Exposure
- Work-Related Lung Disease

Visit our [website](#) to view videos and slides from all five sessions.



# Key Priority: Workplace Mental Health

Healthy minds are fundamental to our wellbeing and our ability to thrive and perform. Workplace stress is a serious health and safety hazard that can have devastating effects on our mental health. Everyday workers feel these effects with up to 10% of Canadian workers rating their workplaces as having a poor or toxic climate\*.

With a majority of adults spending most of their waking hours at work, it is vitally important for organizations to recognize and address the factors affecting workers mental health. Recognizing and managing workplace psychosocial factors can create a supportive and healthy work environment and play an essential part in maintaining workers' positive mental health.

OHCOW's focus for this key priority is **primary prevention at the organizational level**. Primary prevention addresses the cause or source of the problem. We aim to encourage and support workplaces to make the changes necessary to *prevent* negative impacts on the mental and physical health of workers; with a goal of creating psychologically safe and healthy workplaces where everyone can thrive.

\*OHCOW EKOS National COPSOQ Survey 2016, 2019.

## Mayday, Mayday! 2020

Mayday, Mayday is an internationally recognized cry for help, and Mayday itself celebrates the contribution of workers the world over. OHCOW's 5<sup>th</sup> Annual Symposium on Workplace Mental Health, Stress and Injury Prevention was held as a 5-week webinar series that drew on speakers from across Ontario and beyond to highlight and share solutions to Workplace Mental Health, Stress and Injury Prevention with considerations for the global COVID-19 pandemic.

1. COVID-19 & Psychological Health & Safety in Healthcare
2. Survey Savvy - Choosing the right Tool
3. Research Review on Bullying, Law & Mental Injury Prevention
4. International Approaches to Stress & Injury Prevention
5. Worker Pandemic Experience & MH Working from Home

Videos and slides available on our [website](#).

## Mental Health & COVID-19: Resources

[Mental Health and COVID-19 resources](#) were sourced and curated by OHCOW staff as we recognized that the uncertainty of the pandemic situation, the constant evolution and barrage of information, and recommended isolation was stressful for many, both at work and at home.

## Pandemic Experience and Impact

OHCOW workplace stress experts, along with several academic and labour partners developed a survey to measure the experiences of healthcare workers (HCWs) and a second survey of non-health care workers, during the pandemic. The surveys are based on several scientifically recognized questions that measure different aspects of job-related psychosocial conditions, along with symptoms related to intense stressful conditions and mood disorders.

Several publications and presentations of the results were developed and provided to Ontario workers and beyond. For further information read more in [Committed to Research and Data](#) below or visit our [Pandemic Experience and Impact](#) webpage.

# Key Priority: Occupational Health Issues

Much of OHCOW's work is directed at broad occupational health promotion efforts which encapsulate injury prevention, targeted hazard reduction and vulnerability initiatives.

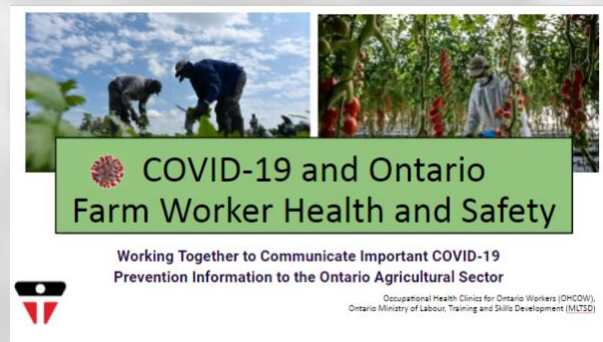
## **Championing Vulnerability: OHCOW's Migrant Farm Worker Program (MFWP)**

Early in the pandemic we recognized a significant challenge finding COVID-19 resources for worker education in formats accessible to them (workplace guidance text heavy, not translated). E.g., Ontario Government COVID-19 Safety Pictograms (initially English only). There were also numerous resources created by public health units, community health centres, health and safety associations etc.

OHCOW grouped worker resources into PDFs and circulated to employer networks to support worker COVID-19 safety orientation and education, plus curated COVID-19 educational resources (English/Spanish + low literacy) from credible sources around the world:

- [Ontario COVID-19 Safety posters & resources](#), including many translated into Spanish
- [Comprehensive list of Canadian, US, and Mexican resources](#), English & Spanish resources

OHCOW MFWP staff also recognized that providing information in video format would be valuable to employers and especially to workers. Hence, we organized a joint webinar in partnership with the MLTSD in June, and then elaborated and broke down the content into a video series which was released in September.



## **COVID-19 Health and Safety Videos for Ontario Farm Workers**

Introduction & COVID-19: Risks on Farms and COVID-19 Safety

[English](#) & [Spanish](#)

What to do if you have COVID-19 Symptoms: Symptoms, Reporting, Testing & Income Support for Sick Workers

[English](#) & [Spanish](#)

+ Non-Emergency Health Care - Primary Health Care and Mental Health Support

[English](#) & [Spanish](#)

Working Together on the Farm:

[English](#) & [Spanish](#)

This series has been a useful resource and has now attracted more than four thousand views.

### **Kairos Temporary Foreign Agricultural Worker Empowerment**

The OHCOV MFW Program was also invited to submit a proposal to the Kairos Temporary Foreign Agricultural Worker Empowerment during COVID-19 Project which was accepted and began in March of 2021.



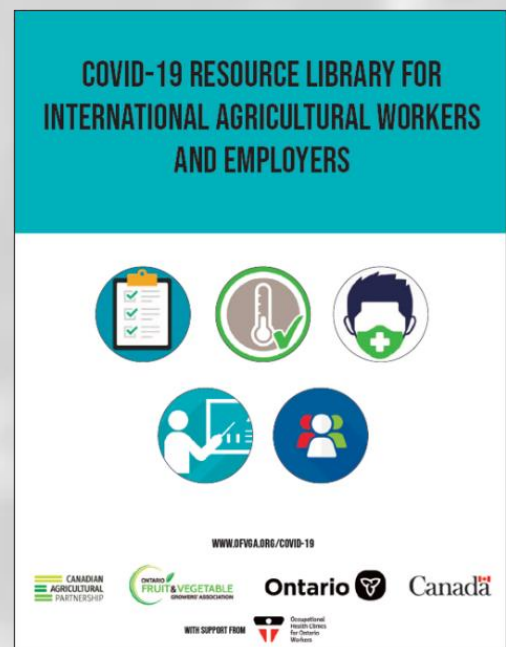
### **OHCOV + Ontario Fruit and Vegetable Growers COVID-19 Resource Project**

OHCOV partnered with the Ontario Fruit and Vegetable Growers (OFVGA) to execute a multi-faceted project in the winter of 2021. It included research and curation of existing resources, a survey of workers to identify concerns and knowledge gaps and then development of targeted resources to meet those gaps.

A preliminary COVID Resource Library was assembled and released in February 2021. It included an extensive set of resources covering relevant COVID-19 topics (English, Spanish and Thai) that were vetted to ensure alignment with federal, provincial, and municipal guidelines.

Twenty-seven worker interviews with Thai, Latinx and Caribbean workers were then held, aimed at:

- Better understanding what COVID-19 related information international agricultural workers received during the first wave of the pandemic
- Identifying topics for which workers felt they needed more information





These discussions led to resource creation:

#### Project Team

- General COVID-19 Safety
- **Quarantine and Isolation Periods**
- **COVID-19 Testing**
- **Workplace Disinfection and Shared Housing**
- Cohort Safety
- COVID-19 Transportation Safety
- **Income Support**
- **Mental Health**
- **COVID-19 Vaccine**

#### Stakeholder Involvement

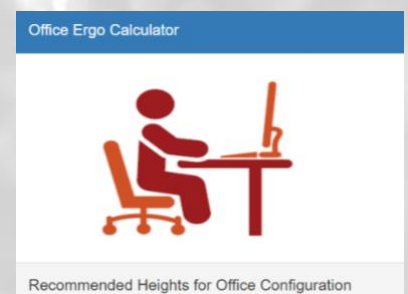
- **WSIB** - accessible version of their pamphlets and information for agricultural workers
- **Windsor-Essex County PHU** - translation into Thai
- **Public Health Ontario** - allowing us to adapt their resources
- **Refugee 613/OCASI** - collaborating to create COVID-19 vaccine resources

More information on the OFVGA website [here](#)

### Injury Prevention/Ergonomics

OHCOW's six Ergonomists kept busy throughout 20/21, providing education, training and worksite consultations as well as researching and writing reports on the work-relatedness of Musculoskeletal Disorders (MSD), hand-arm vibration syndrome (HAVS) and other physical injury clinical cases. Many [ergonomic resources](#) and [tools](#) are available on our website and are covered elsewhere in this document efforts included Work from Home webinars, resources and virtual ergonomic assessments, as well as working toward revamping our popular Office Ergonomics Handbook for modern workstations which continued and will be launched in 21/22.

They also conducted a validation study of the Office Ergo Calculator with CROSH, which led to several recommendations currently being added, plus finalized an amalgamated version of Anthropometric Tables, both available in the [ErgoTools](#) section of the website. The Anthropometric tables are a combination of a number of anthropometric databases in an attempt to provide the most comprehensive and concise data set of anthropometric dimensions. The datasets included in this tool include Anthropometric Survey of US Army Personnel (ANSUR I), Anthropometric Survey of US Army Personnel (ANSUR II), DINED Anthropometric Database, and Civilian American and European Surface Anthropometry Resource (CAESAR).



## Repetitive Strain Injury Day (RSI Day)

Repetitive Strain Injuries (RSI) refers to a category of injuries involving damage to muscles, tendons and nerves caused by overuse or misuse. For over 20 years OHCOW has been affiliated with this international event in order to increase awareness and prevention of these disorders.



### [RSI Day 2021 - Exploring New Horizons Webinar Series](#)

Our annual international event continued for its 22nd year to increase awareness and prevention of musculoskeletal disorders. Due to COVID-19 restrictions the traditionally hybrid event was held virtually only, and was extended to a weekly webinar series for the entire month of February on the following themes:

#### Office Ergonomics

- Investigating the impact of physical, psychosocial, and behavioural changes related to modern, flexible office settings
- A Truly Remote Workstation - Working from Your Car
- OHCOW's New Office Ergonomics Handbook - Part 1

#### Ergonomic Tools

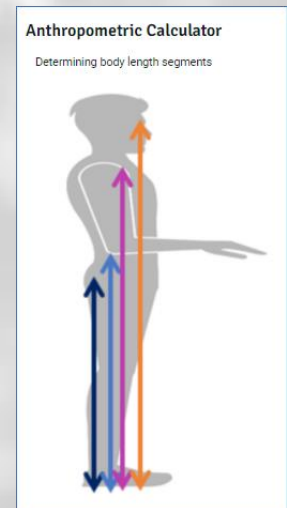
- Introducing the Anthropometrics Calculator
- Rapid Upper Limb Assessment
- OHCOW's New Office Ergonomics Handbook - Part 2

#### Musculoskeletal Disorders

- Understanding and Use of WSIAT Discussion Papers
- Dupuytren's Contracture
- OHCOW's New Office Ergonomics Handbook - Part 3

#### New Technology

- Understanding Industry 4.0
- New Assessment Methods for Above-Shoulder Work and Manual Materials Handling
- OHCOW's New Office Ergonomics Handbook - Part 4



# Collaborative Partnerships





# Community Engagement

Though the 2020-2021 year was significantly disrupted by the pandemic, and we were unable to hold events and engage in community outreach in public, we continued with new solutions to stay engaged. Our clinic doors remained physically closed but we held about 30 live webinars/info sessions via video conferencing plus a myriad of partner events, and consultations all online

## **Webinars (and other interactive online sessions)**

OHCOW held over 40 interactive online sessions and produced several pre-recorded webinars and informative videos, in the April 1<sup>st</sup>, 2020 to March 31<sup>st</sup>, 2021 period. Visit our [News & Events section](#) for a chronological list.

Major webinar series included:

**Mayday, Mayday! 2020** - read about it [above](#).

## **Occ-COVID Science, Solutions & Success Stories**

Began in July 2020, with 11 sessions during this fiscal year:

- COVID-19 Transmission: Taking Stock of the Science
- Solutions: The Hierarchy of Prevention/Control Banding
- The Role of Infectious Dose and the Hierarchy of Prevention (Controls) for COVID-19
- Transmission Reduction, Ventilation Optimization & Knowledge Activation for effective Workplace Prevention
- It is Time for Effective PPE as a Control: Respiratory Protection During COVID Winter
- A Medical Perspective: What We Know about the Long-Term Health Effects
- “Air” on the Side of Caution
- Face Coverings & Respirators - Filling the Gaps
- Airing it out: Ventilation Solutions and Tools at a Critical Time
- Updates from the Medical Perspective
- A Year in Review - Elastomeric Respirators - Beyond the Mask

We continue to add sessions past that period as well. View the complete and up-to-date list of sessions as well as links to videos, slides, and other additional resources and information [on the Occ-COVID event page](#).

**Occ-tober Symposia Webinar Series on Occupational Health & Disease Prevention** - read about it [earlier in this report](#).

## **Occupational Disease Prevention Winter Webinar Series**

- Using Science in Cancer Adjudication & Policy-Making: Cluster Project Implications
- McIntyre Powder & Neurological Disorders: Results of the OCRC Study
- Is Your Cancer Work-related?
- Work-Related Heart Disease
- Investigations 101: Using Retrospective Exposure Profiles to Assist in Proving Cases of Occupational Diseases for Workers Compensation Claims

View videos, slides, and more information [on our website](#).

## OH-PODS Podcast

Listen and subscribe using [Apple Podcasts](#), [Spotify](#), and [more!](#)

Nail Salons Services during a Global Pandemic  
In Conversation with James Miuccio and Sonia Lal,  
Occupational Hygienists at OHCOW

OHCOW hygienists discuss critical information on how to better protect yourself during COVID and the use of Nail or Hair Salon Services. During the early months in COVID, a lot of folks were growing out their hair, hair colour, and beards as salon services were closed and employers were struggling to get into compliance with all the requirements for safely working during this Pandemic. James and Sonia bring you health and safety-related information from the Centers for Disease Control with regards to how you can protect yourself when perusing the Salon Services and how employers and employees at these workplaces can work safely amongst each other and with their clientele. Come listen in on this fun yet scientific conversation!




## The Lens Newsletter

Stay up to date on all of OHCOW's tools, resources, and events throughout the year by subscribing to our newsletter, The Lens.

You will receive The Lens via email about 8 times a year.

Subscribe to or view past issues [here](#).


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### The Lens


FEBRUARY 2021

#### Updates, Events, and Resources

**Webinar: Agricultural Workplace COVID-19 Inspection Initiative and TFAW Safety**

February 11, 2021 – 10:30 AM

The 2021 growing season is fast approaching, and temporary foreign agricultural workers have again started arriving to Ontario agricultural operations, amidst a serious global pandemic.



Join us to learn about the details of The Ontario Ministry of Labour, Training and Skills Development (MLTSD)'s initiative from the MLTSD manager responsible for coordinating it, with the opportunity to ask questions.


[More information & registration](#)

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**RSI Day 2021 - Exploring New Horizons Webinar Series**

Session 2 on Ergo Tools this Friday (February 12) at 10am!

Our annual event promoting awareness and prevention of Repetitive Strain Injuries



# New Apps/Tools

## OEL Adjust Tool

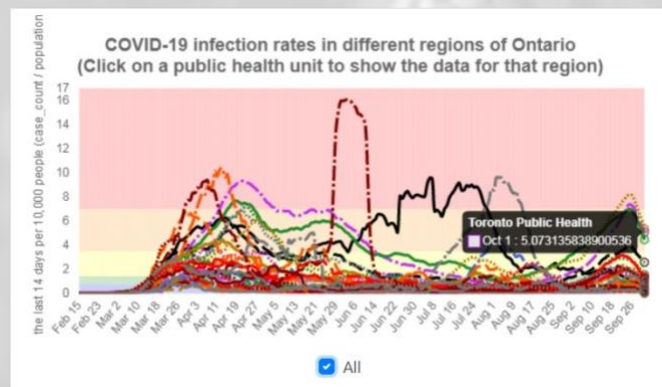
Exposure Assessments play an essential role in prevention and this new tool allows the calculation of the adjusted OEL (Occupational Exposure Limit) for an unusual or extended work shift. Brought to you by OHCOW, and the Occupational Disease Action Plan Contributors, this tool allows the calculation of the adjusted workplace exposure limit for an unusual or extended work shift which has been adapted using the methodology set out in [the Guide for the Adjustment of Permissible Exposure Values for Unusual Work Schedules \(March 2015\)](#), published by Quebec's Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST).

This method, used in the Province of Quebec and referenced by the ACGIH and other health and safety organizations, considers toxicological information such as sensitization, irritation, organ toxicity, reproductive system toxicity and teratogenicity, in addition to exposure and recovery times. Irregular work shifts are now commonplace in many industries and the standard eight-hour workday/40 hour work week (which has been the basis for the time-weighted average (TWA) occupational exposure limits) is often not the reality. To address this change, exposure standard adjustments have increasingly become an essential component in workplace exposure assessment.

## Regional Risk Tool

This tool determines your local infection risk and corresponding tips for COVID-19 prevention in non-healthcare workplaces.

- based on Public Health Ontario COVID-19 reported case counts
- graphs the 14-day rolling count divided by population for a rate per 10,000 in each Public Health region against a backdrop of 5 coloured risk levels, plus a current At a Glance chart, then follow the coordinated tips to protect your workplace from infection
- regional infection risk levels are classified into 5 categories (coloured bands)
- escalating set of tips, based on risk, to protect your workplace from COVID-19
- Updated [Regional Risk Table at A Glance](#) includes Ontario's new Colour Levels





## Workplace COVID-19 Risk Management (Control Banding) Framework Matrix

A communication and education tool based on the US [OSHA](#) Risk Levels, aligned with the Hierarchy of Controls (reinforcing that “higher order controls” (e.g. distancing and ventilation) are much more effective than personal protective equipment when managing the risk of infection from an aerosol transmissible disease like SARS-CoV-2). And reminding that the degree of infection protection control (IPC) should be commensurate with the level of risk in order to help support decisions on risk management and control.

As the risk for infection gets higher, for higher risk jobs, such as health care workers (HCW) working near COVID19 patients; it is even more important that more emphasis be placed on engineering and administrative controls, not just PPE.


More information available on our [website](#).

Workplace COVID-19 Risk Management (Control Banding) Matrix				
	Low Risk (Caution)*	Medium Risk*	High Risk*	Very High Risk
<b>Physical Distancing</b> <i>Most Effective</i>	Maximum distance apart. Minimum physical distance 2 metres, all situations. When possible work from home. Keep direct contact control to a minimum, especially visitors.	Support & enable network under curbside service delivery. Reconfigure layout. Rear & points of interaction to maintain physical distance > 2 metres as much as possible.	Use Telepresence. Reconfigure layout for single physical location. Physical distance not possible in most situations. Rear & points of interaction. Rear & points of interaction. Rear & points of interaction.	Use Telepresence. Reconfigure layout for single physical location. Physical distance not possible in most situations. Rear & points of interaction. Rear & points of interaction. Rear & points of interaction.
<b>Engineering Controls</b>	Ventilation. Minimum air changes, including opening windows & doors as/when feasible. Address <a href="#">https://www.cdc.gov/ventilation/</a> . Good practice: avoid windows. Optimize <a href="#">https://www.cdc.gov/ventilation/</a> .	Ventilation. Minimum air changes, including opening windows & doors as/when feasible. Address <a href="#">https://www.cdc.gov/ventilation/</a> . Good practice: avoid windows. Optimize <a href="#">https://www.cdc.gov/ventilation/</a> .	Ventilation. Minimum air changes, including opening windows & doors as/when feasible. Address <a href="#">https://www.cdc.gov/ventilation/</a> . Good practice: avoid windows. Optimize <a href="#">https://www.cdc.gov/ventilation/</a> .	Ventilation. Minimum air changes, including opening windows & doors as/when feasible. Address <a href="#">https://www.cdc.gov/ventilation/</a> . Good practice: avoid windows. Optimize <a href="#">https://www.cdc.gov/ventilation/</a> .
<b>Administrative Controls</b>	Health assessment. Work schedule. Work from home. Personal hygiene. Hand washing. Cleaning/Sanitization/Disinfection. Safe work practices, including removal of all common facilities. Screening worker risk & health. Facilities & support toward risk communication.	Health assessment & risk management plan. Work schedule with less worker convergence. Personal hygiene. Hand washing. Cleaning/Sanitization/Disinfection. Safe work practices, including removal of all common facilities. Screening worker risk & health. Facilities & support toward risk communication.	Health assessment & risk management plan. Work schedule with less worker convergence. Personal hygiene. Hand washing. Cleaning/Sanitization/Disinfection. Safe work practices, including removal of all common facilities. Screening worker risk & health. Facilities & support toward risk communication.	Health assessment & risk management plan. Work schedule with less worker convergence. Personal hygiene. Hand washing. Cleaning/Sanitization/Disinfection. Safe work practices, including removal of all common facilities. Screening worker risk & health. Facilities & support toward risk communication.
<b>Personal protective equipment (PPE)</b> <i>Least Effective</i>	Where physical distancing is not possible. Consider face masks. Screen control for all present to minimize transmission, especially visitors.	Where physical distancing is not possible. Consider face masks. Screen control for all present to minimize transmission, especially visitors.	Where physical distancing is not possible. Consider face masks. Screen control for all present to minimize transmission, especially visitors.	Where physical distancing is not possible. Consider face masks. Screen control for all present to minimize transmission, especially visitors.

## Ventilation Checklist

Following the Hierarchy of Controls, ventilation and filtration provided by HVAC systems can reduce the airborne concentration of SARS-CoV-2 and thus the risk of transmission through the air. This Ventilation Checklist (COVID-19) can be used as a guide to assess the suitability of ventilation in the workspace/building that are to be occupied.

Available on our [website](#) in French or English.



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Centres de santé des travailleurs (ses) de l'Ontario Inc.

### Ventilation checklist (COVID-19)

The following checklist can be used as a guide. Pertinent questions are suggested that can be used to assess the suitability of ventilation in the workspace/building that are to be occupied.

According to ASHRAE: "Statement on airborne transmission of SARS-CoV-2. "Transmission of SARS-CoV-2 through the air is sufficiently likely that airborne exposure to the virus should be controlled. Changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures". Therefore, engineering or control via ventilation is critical and provides a higher order control.

Question	Y / N	Additional Guidance	Reference/Notes
1. Has the Hierarchy of Controls (HOC) been used to implement physical distancing, appropriate engineering, administrative, and personal protective equipment (PPE) options in that order (Refer to CDC worker protection tool 1) based on a risk assessment?			1
2. Check in with the person in charge of the day to day operation of the heating, ventilating and air conditioning (HVAC) system.		Ask about the status of the HVAC system. For example: Is it running properly? What service does it need? Are its parts clean? Does anything need to be done to make the system work more effectively? Are the Plans and Specifications available for review, just in case? Is there anything else to know?	9

1

# Committed to Research and Data

OHCOW has a long history of collaborating with academics and practitioners to investigate, analyse and translate medical, scientific, and sociological research to better understand hazards and injury and illness prevention.

## Pandemic experience surveys

Important insights around the mental health impact of PPE & Infection Control deficiencies were gained through the Healthcare Worker and Generic Worker Pandemic Experience Surveys last spring, and we continue to capture the worker experience throughout the course of this pandemic and its various waves.

Both surveys, in English and French, along with our associated webinars, recorded videos and publications are available on our [website here](#).

## **Pandemic Experience Surveys**

- A survey of healthcare workers' experiences during a pandemic
- Survey of Workers' Experiences during a Pandemic

## **Survey Results: Recorded Videos and Webinars**

- Let's Walk the Talk: Tools for [workplace] mental health
- OHCOW hygienist, recorded presentation
- Survey Results Presentation
- Pandemic Experience of Workers - Lancaster House presentation (slides) by OHCOW hygienist and IWH research partner
- OHCOW and WHSC webinar, COVID-19 survey results: What's it like to work in healthcare in Canada?
- Healthcare and Non-Healthcare Pandemic Experience Surveys explained as part of [Mayday, Mayday 2020](#) (Sessions 1 and 5 respectively)

## **Survey Results: publications**

- Labour Market Attachment, Workplace Infection Control Procedures and Mental Health: A Cross-Sectional Survey of Canadian Non-healthcare Workers during the COVID-19 Pandemic,
- The Conversation, news article, Health-care workers lacking PPE suffer from more anxiety and depression
- The Association between the Perceived Adequacy of Workplace Infection Control Procedures and Personal Protective Equipment with Mental Health Symptoms: A Cross-sectional Survey of Canadian Health-care Workers during the COVID-19 Pandemic

## **Contributions to National Dialogue on COVID-19 Science and Healthcare Worker Protection**

OHCOW hygienists John Oudyk and Kevin Hedges participated in a national Best Brains Exchange about transmission science and worker protection hosted by federal health and research agencies in the fall. See John's powerful presentation (as slides or a recording on our [website](#)) comparing

practices and cases in Canada vs China, recognizing the differing (and entrenched) scientific perspectives, but reiterating the significant and egregious impact on Canadian Healthcare workers, and reminding everyone that it is all our (“general”) duty to take every precaution (“reasonable”) to protect every worker!

John Oudyk also contributed a chapter to the recently released Investigation into A Time of Fear: How Canada Failed Health Workers and Mismanaged COVID-19 by SARS Commission

The independent investigation was commissioned by the Canadian Federation of Nurses Unions and conducted by Mario Possamai, former senior advisor to the Ontario SARS Commission. Among the recommendations are urgent measures that enshrine a precautionary approach in Canada’s pandemic response.





# Contact Us

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Occupational Health Clinics for Ontario Workers (OHCOW) is dedicated to the identification and prevention of work-related injuries and illnesses. This includes musculoskeletal disorders, cancer and other diseases from workplace exposures, as well as stress-related impact.

OHCOW interdisciplinary staff of Occupational Physicians, Nurses, and Hygienists, plus Ergonomists, Client Service and Outreach Coordinators provide five types of free services:

**Medical diagnostic** case review for workers who may have work-related health problems or illnesses

**Group service** for joint health and safety committees and groups to deal with workplace conditions that affect more than one worker, including hygiene, ergonomic and health assessments

**Inquiry service** to answer questions about exposures and possible workplace hazards, and their prevention

**Outreach and education** to generate public awareness about health and safety issues, as well as workshops and presentations tailored to specific workplace challenges

**Research service** to investigate and report on illnesses and injuries to improve working conditions

to Workers, Unions, Employers, Students, Joint Health & Safety Committees and Representatives, Health Professionals, Legal Clinics, Community Groups, and the General Public.

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