The Occupational Health Clinics for Ontario Workers (OHCOW) Inc. is one of six Prevention System partners funded by the Workplace Safety and Insurance Board (WSIB) via the Ministry of Labour (MOL). It has a unique mandate: to prevent occupational injury and disease by providing clinical, hazard and workplace assessment, along with evidence-based research; in response to concerns from workers, employers, and union representatives alike. Education and knowledge transfer are also key aspects of our prevention efforts. OHCOW is funded in such a way that all services are provided free of charge.

This Annual Report is a snapshot of OHCOW’s work and accomplishments for the period April 1, 2014 to March 31, 2015. It also highlights our 25 year history and the related Anniversary Conference: Celebrating the Past and Looking Forward.

OUR MISSION
The mission of the Occupational Health Clinics for Ontario Workers Inc. (OHCOW) is 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.

OUR VISION
The detection, prevention and elimination of occupational injuries and illnesses, and the promotion of the highest degree of physical, mental and social well-being for all workers.
Each clinic is built on a unique service model where teams of doctors, nurses, occupational hygienists, and ergonomists provide comprehensive occupational health services and information to workplace parties regarding work-related health problems. Our clinics work in partnership with workers, supervisors, employers, unions, advocates and/or community stakeholders to identify occupational injuries and diseases, plus research and resolve health and safety problems. In addition, any prevention interventions are participatory and include a role for workers and their representatives in assessing and addressing workplace hazards.

- **Interdisciplinary team of health and safety professionals responding to needs of workers in all sectors**
- **Direct involvement in occupational injury and disease through clinical services**
- **Funding model allows services to be provided without charge**
- **At the front-line in the detection of work-related health conditions**
- **Provide services to some of the most vulnerable workers in Ontario**
- **A vital bridge between the prevention system and the worker community**
- **Experience working effectively with employers and prevention system partners while rooted in strong labour values.**

**PRIMARY SERVICES**
- **Medical diagnostic service** for workers who may have work-related health problems.
- **Group service** providing educational and investigative support for joint health and safety committees and workplace parties.
- **Inquiry service** to answer workplace health and safety questions.
- **Outreach and education service** to make people aware of health and safety issues and promote prevention.
- **Research service** to identify, investigate and report on illness, injury & disease trends.

**CLIENTELE**
- **Workers**
- **Joint Health and Safety Committees**
- **Unions**
- **Employers**
- **Advocates**
- **Doctors**
- **Nurses**
- **Community Groups**
- **Members of the Public**

The Occupational Health Clinics for Ontario Workers Inc. (OHCOW) celebrated a significant milestone in 2014: our 25th anniversary as the leading provider of clinical and prevention occupational health services to workers in communities throughout Ontario. The organization continues to remain at the forefront of promoting a health-based prevention approach in responding to concerns from the workplace community. Throughout its 25-year history, OHCOW has been a trusted resource to provide expert prevention advice and sound prevention intervention solutions for all workplace parties. We take great pride in our community partnerships and in our contribution to the development of many innovative prevention tools and resources to increase awareness of health and safety issues and to promote prevention and hazard elimination strategies.

The year proved to be an eventful one at OHCOW, both for the Board and staff. After many years of dedicated service to the organization and community, Donna Campbell, Executive Director, Sudbury and Thunder Bay Clinics, announced her retirement. She will be missed. We also recognized the contributions of outgoing Chief Executive Officer, and former Board member, Anthony Pizzino. Michael Roche graciously accepted appointment as the Interim CEO, in addition to continuing his duties as OHCOW’s Chief Financial and Administrative Officer. Under his stewardship the organization continued to thrive. In the fall, executive directors were recruited for the Hamilton and Sudbury/Thunder Bay Clinics, rebuilding the capacity of the Leadership team.

OHCOW is an organization which benefits greatly from its Board in strengthening our ability to meet the needs of workers throughout Ontario. Our Board members represent a wide spectrum of Ontario’s labour movement and broader worker community. In 2014–15, OHCOW welcomed new Board members: Gayle Bossenberry as the CUPW representative, Debra De Angelis as the UFCW representative, and Michael Lundy from OPSEU as the LAC Chair, Thunder Bay clinic.
We also developed an action plan which will be implemented for the 2015–2020 strategic plan cycle, providing meaningful outcomes that will allow us to adapt effectively to the changing landscape of occupational health and safety priorities in Ontario. With ongoing support from our funder, we were able to move forward on many key initiatives. OHCOW continued to lobby for funding to launch a clinic in Eastern Ontario, ideally located in Ottawa, in order to meet the increasing demand for our services in this region.

OHCOW plays a unique and vital role providing essential services to ensure prevention of occupational disease, injuries and illnesses in Ontario workplaces and we will continue to do even more for workers and workplaces in the future. I am proud of OHCOW’s achievements in 2014–15 and also am appreciative of the efforts of the many partners, stakeholders, unions and supporters who have worked with us over the past 25 years. We are proud to be a trusted and esteemed prevention resource. We have many reasons to celebrate, and many more opportunities to showcase the valuable services that OHCOW has to offer. Through our important and ongoing collaborative partnerships, along with our constituency, partners and clients, anything is possible.

This was a year filled with reflection, change and achievement. I am proud of all that the OHCOW team accomplished together in the promotion of occupational health & safety, plus the fight for disease prevention. Looking back, we are reminded of the many people who have come before us; we honour their dedication and commitment to meet the needs of the workers of the province; and we are inspired to strive for even greater achievements going forward. Completing a five-year strategic plan, set to begin April 2015, was another major accomplishment. It sets the stage for an increased focus on technology, services, oversight, financial sustainability and growth. We also enhanced our operational and reporting processes with a goal to continue to run as efficiently and effectively as possible. One example is a new Balanced Priorities report framed on the themes of People, Internal Process, Client, and Financial.

The 2015/16 Business Plan, developed and submitted in the fall, included strategic opportunities targeted to meet the needs of workers throughout the province, particularly by extending services into Eastern Ontario and expanding outreach to vulnerable and migrant workers. We continue to dialogue with the Ministry, Prevention Office, and our partners to try to address these important priorities.

Building and maintaining the clinic system takes a community. OHCOW’s achievements and success have been enabled by the visionary leadership of our Board and LAC members and the commitment of our staff and physicians. We thank them all for their service and dedication.

David J. Chezzi, President and Chair
OHCOW Board of Directors

Michael Roche
Chief Executive Officer
OHCOW celebrated 25 years of providing Occupational Health services to Ontario workers with a special anniversary conference held on October 30–31st, 2014 in Toronto. More than 200 people attended the event which kicked off with reflective and motivating speeches by senior labour and government officials and a stimulating and informative video presentation on OHCOW history and past achievements (https://youtu.be/GQS3hjFyKc4).

Speakers included:

- David J. Chezzi, President and Chair of the OHCOW Board
- Kevin Flynn, Minister of Labour
- George Gritziotis, Chief Prevention Officer
- Elizabeth Witmer, Chair of the Workplace Safety and Insurance Board
- Taras Natyshak, MPP (Essex)
- Sid Ryan, President of the Ontario Federation of Labour
- John Perquin, Assistant to the International Secretary-Treasurer of the United Steelworkers (USW), and early Board member
- Nancy Hutchison, Secretary-Treasurer of Ontario Federation of Labour and former Board member


Friends from the Workers Health and Safety Centre: Susan Huizinga, Ellen Simmons, Laura Pascoe, Charlotte McMorrow, Roger Silva, Constance Pare.

OHCOW staff led a series of informative and interactive workshops highlighting the organization’s strengths on themes of: clinical knowledge; hygiene, ergonomic, and psychosocial hazard recognition, evaluation and control; new and emerging health-based prevention tools; and interesting research projects. The topics are listed below, and the slides, as well as several videos, remain available on www.ohcow.on.ca for future benefit. We thank all of OHCOW staff along with the guest speakers, community partners, and participants in making this event a huge success.

- Mental Injury Tool—launching a new Smartphone App to help measure stress
- Causation of Chronic Diseases Including Cancer
- Intake Clinics screening for Occupational Disease
- Guidelines for the Prevention of Back Injuries Among EMS Workers
- Service to Migrant Farm Workers (MFWs)
- Labour OHCOW Academic Research Collaboration (LOARC)
- Physical Demands Description
- Office Ergonomics
- Noise—Its Effects and Methods to Reduce Exposures
- Practical Ergonomics Interventions
- MSD Survey Tool
- Back Care Techniques
- 3D Static Strength Prediction Program
- Quick Exposure Check
- Doing Something about Indoor Air Quality
- Role of the Occupational Hygienist in Establishing Work Relatedness of Occupational Disease
Throughout the 1970s and 1980s, Ontario workers struggled to secure basic health and safety rights. The miner’s strike in Elliot Lake 40 years ago is a classic example. Key rights were gained under the 1978 Occupational Health and Safety Act after the Ham Commission. But there remained concern about exposure risks, including the need for independent medical services to recognize and validate linkages with disease in order to substantiate claims and drive prevention.

The first union-sponsored Occupational Health Clinic in North America was started by the United Steelworkers of America, Local 1005 in Hamilton in 1981 in conjunction with activist doctors from McMaster’s Occupational Health Program. And building on its success, the Ontario Federation of Labour secured an agreement with the Ministry of Labour in 1988 to fund a pilot project—leading to the creation of OHCOW’s first clinics (in Hamilton and Toronto) in 1989.

In Windsor in the mid-1980’s, a mesothelioma widow, (Lucie Dunn), initiated meetings to build support for the victims of asbestos-related diseases. The victims’ group sponsored a local clinic in 1987; becoming part of OHCOW in 1991, concurrent with a new Sudbury clinic to serve northern workers. The Sarnia clinic opened in 1991, concurrent with a new Sudbury clinic, becoming part of OHCOW, the union’s Occupational Health Clinic in North America was started.

In 1989, the demand for medical surveillance for designated substances dominated field work. As manufacturing declined, indoor air quality and ergonomics became more common requests. Asbestos issues grew, particularly in Sarnia, resulting in thousands of patients over the years. The Sudbury clinic quickly became an essential partner for communities with scarce resources. OHCOW Toronto served a densely populated area (Mississauga to the Quebec border) managing numerous requests with diligence and creativity. Hamilton staff became involved in epidemiological investigations early on, and the techniques (eg. questionnaires and medical screening) are now used across the organization.

About 10 years ago, Windsor, and then the Hamilton and Toronto, became involved with migrant workers, evolving into targeted clinics, often held evenings or on weekends in community locations. This work is now expanding to other vulnerable worker communities. In a similar vein, the Thunder Bay clinic has developed significant linkages recently with native bands in their area.

OHCOW is a small organization of dedicated professionals—making it nimble and responsive—but the reach and impact has been magnified significantly by numerous partnerships with a myriad of organizations and individuals. Connections to workers and their representatives have been especially valuable in keeping efforts grounded, practical and timely. The statistics are impressive. Over the years the multi-disciplinary occupational health teams in the OHCOW clinics have worked on more than 31,000 patient cases and 11,500 workplace interventions; developed >500 occupational health-based prevention tools and resources; presented >10,500 education sessions; and responded to more than 100,000 work-related inquiries.

Workplace hazards and concerns have evolved and changed over time, as has technology. OHCOW strives to stay current and informed, venturing recently into a collaboration to address burgeoning workplace stress and mental health issues and even developing smartphone apps. The issues and tools change, but the underlying need for occupational health expertise, assistance and support to the workers and workplaces of Ontario doesn’t. The Occupational Health Clinics for Ontario Workers is as relevant today as it was the day it began.

These centres will vastly increase the availability to workers of independent medical assessments, including occupational histories and physical examinations by occupational health specialists, and medical monitoring of workers exposed to hazardous substances. In addition, they will contribute to improved industrial hygiene standards and will serve as sources of data for epidemiological studies to determine the relationship between work hazards and disease.

— Labour Minister Greg Sorbara announcing funding for the first two clinics in April 1988
Day in and day out, OHCOW clinics are engaged in the investigation and diagnosis of whether specific health conditions resulted from occupational activities or exposures. We provide an evidence-based opinion about the work-relatedness of the injury or disease and produce an occupational medical report, often informed by occupational hygiene and/or ergonomic information.

In 2014, Clinical Services continued its focus on the needs of workers, many of whom are the most vulnerable in the province. A wide range of work activities, tasks and exposures were investigated and numerous diagnoses were made for a wide variety of occupational diseases.

“I have just recently read your [medical] report and I have no words to express the vigilant efforts you display for the workers and families. We are so fortunate to have a genuine decent professional on our side, no matter what the outcome. I feel fortunate to have met you.”

- Individual patient feedback

“Per our telephone conversation, please find attached the WSIAT decision ‘won’ for this worker much to the credit of OHCOW and the report prepared by the OHCOW Doctor and Ergonomist. I wish to thank you for the wonderful report.”

- From an advocate to OHCOW

<table>
<thead>
<tr>
<th>DIAGNOSES AT A GLANCE: A WIDE RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing and Ear Problems (NIHL)</td>
</tr>
<tr>
<td>Lung/Respiratory (Pleural thickening, Asthma)</td>
</tr>
<tr>
<td>Back/Neck Pain &amp; Strain</td>
</tr>
<tr>
<td>Cancer (Lung, Pleura, Bladder, etc.)</td>
</tr>
<tr>
<td>Other ( unspecified, Medico-Legal, Central, Myalgia)</td>
</tr>
<tr>
<td>Eye (conjunctivitis)</td>
</tr>
<tr>
<td>Stress and Mental Health (Anxiety, Depression)</td>
</tr>
<tr>
<td>Upper Respiratory Tract (Sinusitis)</td>
</tr>
<tr>
<td>Neurological (Meningitis)</td>
</tr>
<tr>
<td>Foot/Knee/Leg</td>
</tr>
<tr>
<td>Non-specific Physical (Joint Pain)</td>
</tr>
<tr>
<td>Skin Conditions (Dermatitis)</td>
</tr>
<tr>
<td>Internal ailments (Hypertension, Cardiovascular)</td>
</tr>
<tr>
<td>Hand/Arm (CTS, HAIS)</td>
</tr>
<tr>
<td>Shoulder (Rotator Cuff Syndrome)</td>
</tr>
<tr>
<td>Other ( unspecified, Medico-Legal, Central, Myalgia)</td>
</tr>
</tbody>
</table>

| 809 patients with 273 diagnostic codes |

<table>
<thead>
<tr>
<th>EXPOSURES AT A GLANCE: A DIVERSE STORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force 26</td>
</tr>
<tr>
<td>Lifting 20</td>
</tr>
<tr>
<td>Unspecified 102</td>
</tr>
<tr>
<td>Odour 6</td>
</tr>
<tr>
<td>Inorganic/Corrosive 12</td>
</tr>
<tr>
<td>Pesticides 11</td>
</tr>
<tr>
<td>Other (talc, cement, carbon, vinyl)</td>
</tr>
<tr>
<td>Mammals 12</td>
</tr>
<tr>
<td>Pressure 1</td>
</tr>
<tr>
<td>Radiation 12</td>
</tr>
<tr>
<td>Temperature 13</td>
</tr>
<tr>
<td>Sewage 1</td>
</tr>
<tr>
<td>Paints 1</td>
</tr>
<tr>
<td>Paper, Vegetable or Wood dust ?</td>
</tr>
<tr>
<td>Flour 7</td>
</tr>
<tr>
<td>Plants 3</td>
</tr>
<tr>
<td>Plants 3</td>
</tr>
<tr>
<td>Unspecified paint dust 12</td>
</tr>
<tr>
<td>Grain dust 17</td>
</tr>
<tr>
<td>Ergonomic</td>
</tr>
<tr>
<td>Chemical</td>
</tr>
<tr>
<td>Mineral</td>
</tr>
<tr>
<td>Physical</td>
</tr>
<tr>
<td>Biological</td>
</tr>
<tr>
<td>Trauma</td>
</tr>
</tbody>
</table>

1123 entries among 238 different codes
ROUND 1: A DIAGNOSIS QUESTION

- 50 year old ironworker with Parkinson’s disease referred by advocate in 2009 after WSIB claim denied
- Symptoms, test results, and response to treatment directly assessed
- Specialists’ reports reviewed
- Careful analysis of individual’s condition in light of current research.
- OHCOW report substantiating Manganism submitted
- Claim accepted in 2010, but denied in 2012 on appeal

ROUND 2: AGAIN, DIAGNOSIS WAS THE ISSUE

- Both experts provided opinions based on clinical experience and research findings.
- Neurologist had expertise in clinical diagnosis, research and treatment of Parkinson’s disease, but had never directly assessed the worker.
- OHCOW physician, with expertise in clinical epidemiology and in the neurocognitive effects of Manganese, did interview and assess the worker.
- An extensive review of the literature was provided which supported that the worker’s profound cognitive impairment was consistent with manganese-induced neurotoxicity. Report was 8 pages with 28 references.

RESULT

- Claim was allowed at Tribunal (WSIAT Decision 1281/14). OHCOW clinical expertise and submission of scientific data enabled an evidence-informed decision.
- OHCOW has contacted the Parkinson’s Society to share the case and its implications.

PATIENT CASE: MANGANISM OR PARKINSON’S?

PATIENT CASE: WORK RELATEDNESS OF VOCAL CORD NODULE

INTERVIEW

- Female, High school teacher for 14 years
- ~30 students/class and Activities with 30-100 students
- Constantly talking 7am–6pm, including lunch
- Symptoms began two years ago: hoarse voice & inability to talk, better on weekends
- Specialist advised result of excessive talking, common among teachers
- Accommodated with an FM system, microphone with speakers

RESULT

- Claim was allowed at Tribunal (WSIAT Decision 1281/14). OHCOW clinical expertise and submission of scientific data enabled an evidence-informed decision.
- OHCOW has contacted the Parkinson’s Society to share the case and its implications.

REVIEWS

- WSIB denial (“numerous contributing factors”), all medical, and claim file.
- Nodules more common in females
- In Finland, vocal nodules and allergic laryngitis approved as occupational disorders in 2006.
- Work-related exposures identified include:
  - Noise—in and out of the classroom, long speaking distance, unfavorable acoustics
  - Temperature, humidity (dry air), lighting, ventilation
  - Irritants e.g. blackboard chalk, mould, chemicals
  - Workload, size of class, work pressure
  - Using a loud voice

LITERATURE

- Strong odds ratios with voice disorders in teachers in 23 studies

WSIAT

- Decision No.: 2330/11
  Teacher 2005 vocal cord surgery. Dr. Hellyer (OHCOW Windsor) 2007; Diagnosis of dysphonia related to laryngeal nodular growths, consistent with occupational etiology and medical literature indicating an increased association with dysphonia for teachers. Allowed 2012.

- Decision No.: 1911/99
  Telemarketer, sore throat, hoarseness, vocal cord polyps, aponia, laryngitis, Reinke’s edema. Entitled to temporary disability benefits for aggravation of the underlying condition of Reinke’s edema surgery and consequent functional aponia. Allowed 2004.

Medical report and literature review supporting appeal was submitted to the WSIB. Decision pending. Developing educational materials for teachers & others.
An advocate sent a case to the Hamilton clinic questioning whether his chronic lymphocytic leukemia was related to past work with naphtha solvents in an automotive assembly plant. The extent and types of exposures were characterized in a detailed hygiene file review and interview. Benzene was not listed on any of the Material Safety Data Sheets (MSDSs), which only list carcinogens if their concentration exceeds 0.1%.

To estimate the dermal absorption, the hygienist reviewed the literature and assumed a range of benzene contamination in naphtha solvents from 10-1000 ppm (0.001-0.1%). He then used the mathematical model published by Petty, Nicas & Bioarski (2011), and executed 10,000 Monte Carlo simulations varying the input variables within defined ranges according to specified distributions. The simulations provided an average estimate of the dermal absorption of benzene equivalent to an inhalation dose of 11.6 ppm-yrs (5th percentile 3.9 ppm-yrs; 95th percentile 23.4 ppm-yrs). However, in his estimation, the true level of benzene absorption would likely have been higher since the naphtha was mixed with an alcohol (benzyl alcohol) which enhances the skin’s permeability, potentially as high as a cumulative dose equivalent to 50+ ppm-yrs of inhalation exposure. Both levels exceed the German occupational disease criteria which states that 10 ppm-yrs is sufficient for >50% probability of work-related leukemia.

This case is an important illustration of the point that not all hazardous substances are disclosed on safety data sheets, and that users and occupational health practitioners need to be aware of the possibility of undeclared low level benzene contamination in commonly used solvents leading to significant dermal exposures. OHCOW will actively draw attention to this lesson by pursuing dissemination opportunities and including it in future case analysis plus awareness and education initiatives.
EXPOSURE/HEALTH-BASED PREVENTION INTERVENTIONS

OHCOW continued to provide assistance and advice to workplace parties through numerous prevention interventions. We generally work with Joint Health & Safety Committee (JHSC) members, using a participatory approach to identify and analyze hazards and exposures. Interventions by OHCOW’s team of experts (often in the form of a written report but potentially including site visits, presentations, and even workshops) involve recommending practical solutions, suggesting control measures and building knowledge and capacity among the workplace parties to change working conditions in order to prevent further injury or disease.

INTERVENTIONS BY PRIMARY FOCUS

<table>
<thead>
<tr>
<th>Intervention</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Identification &amp; Evaluation</td>
<td>46.0%</td>
</tr>
<tr>
<td>Consultation/Meeting</td>
<td>19.0%</td>
</tr>
<tr>
<td>Outreach, Conferences and Events</td>
<td>18.0%</td>
</tr>
<tr>
<td>Ongoing intervention program support, capacity building and evaluation</td>
<td>6.0%</td>
</tr>
<tr>
<td>Worksite Visit/Tour</td>
<td>1.0%</td>
</tr>
<tr>
<td>Others1 including Ergonomics and Hygiene review</td>
<td>6.0%</td>
</tr>
<tr>
<td>Others also included Tool Development, Medical Surveillance, Research, Survey, and Recommendations for prevention action.</td>
<td></td>
</tr>
</tbody>
</table>

1. OHCOW continued to provide assistance and advice to workplace parties through numerous prevention interventions. We generally work with Joint Health & Safety Committee (JHSC) members, using a participatory approach to identify and analyze hazards and exposures. Interventions by OHCOW’s team of experts (often in the form of a written report but potentially including site visits, presentations, and even workshops) involve recommending practical solutions, suggesting control measures and building knowledge and capacity among the workplace parties to change working conditions in order to prevent further injury or disease.

2014–2015: OHCOW BY THE NUMBERS

1022 Clinical cases
600 Inquiries answered
437 Prevention interventions
205 Educational sessions
43 Staff
18 Board members
6 Clinics

OHCOW continued to provide assistance and advice to workplace parties through numerous prevention interventions. We generally work with Joint Health & Safety Committee (JHSC) members, using a participatory approach to identify and analyze hazards and exposures. Interventions by OHCOW’s team of experts (often in the form of a written report but potentially including site visits, presentations, and even workshops) involve recommending practical solutions, suggesting control measures and building knowledge and capacity among the workplace parties to change working conditions in order to prevent further injury or disease.

INTERVENTIONS BY PRIMARY FOCUS

<table>
<thead>
<tr>
<th>Intervention</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Identification &amp; Evaluation</td>
<td>46.0%</td>
</tr>
<tr>
<td>Consultation/Meeting</td>
<td>19.0%</td>
</tr>
<tr>
<td>Outreach, Conferences and Events</td>
<td>18.0%</td>
</tr>
<tr>
<td>Ongoing intervention program support, capacity building and evaluation</td>
<td>6.0%</td>
</tr>
<tr>
<td>Worksite Visit/Tour</td>
<td>1.0%</td>
</tr>
<tr>
<td>Others1 including Ergonomics and Hygiene review</td>
<td>6.0%</td>
</tr>
<tr>
<td>Others also included Tool Development, Medical Surveillance, Research, Survey, and Recommendations for prevention action.</td>
<td></td>
</tr>
</tbody>
</table>

1. OHCOW continued to provide assistance and advice to workplace parties through numerous prevention interventions. We generally work with Joint Health & Safety Committee (JHSC) members, using a participatory approach to identify and analyze hazards and exposures. Interventions by OHCOW’s team of experts (often in the form of a written report but potentially including site visits, presentations, and even workshops) involve recommending practical solutions, suggesting control measures and building knowledge and capacity among the workplace parties to change working conditions in order to prevent further injury or disease.
A Windsor hygienist was invited to a plant that prints labels for cans because workers (on three rotating 12h shifts) operating a new ultra-violet (UV) press were complaining of headaches plus irritation of eyes and throat.

- Press installed 3 months prior to visit
- UV method eliminates VOC exposures during process.
- Two presses still operate using old methods of ink (pigments + solvents).
- Many different labels are produced.
- Each changeover requires clean—usually 3–4 changes during a 12 hour shift.
- New UV press requires 90 minute wash with petroleum distillate/naphtha to remove colour
- Old press requires only 20 minute clean
- Plant manager did not realize extent of change over wash. Purchased UV press due to no VOC exposure during printing
- No PPE being used

**CONCLUSION/RECOMMENDATIONS**

- High levels of exposure to VOCs during press cleaning.
- Switch to a cleaner with lower volatility
- Close off UV press room to minimize worker exposure

The Thunder Bay Clinic received a request for an assessment to evaluate the risk of musculoskeletal disorders (MSDs) during the process of obtaining and analyzing radiology images in a mobile breast screening bus due to past and current worker knee, back, shoulder and/or arm pain/injury.

**Observation and Interview summary of Medical Radiation Technician (MRT):**

- position patient within the Mammography unit (involves reaching per height of patient)
- take the required image (at computer behind partition across bus)
- view/compare images on two (fixed) computer monitors
- Four images/patient and MRT repeats process for each image

**RESULTS**

- Ventilation increased by increasing air changes/hour
- Workers provided with PPE (appropriate gloves & respirator) and education on hazards.
- Company is requesting future OHCOW involvement to review ozone levels

**GROUP CASE: IMPROVING AN IMPORTANT COMMUNITY HEALTH RESOURCE**

- 21 patients per 8 hour shift; 31 patients per 12 hour shift
- re-location of equipment not possible (secured due to mobility)

**CONCLUSION:**

- Placement of patient into Unit leads to awkward upper limb, torso, and neck postures due to the location of the unit and the varied heights of the patients.
- Utilizing the computer components causes awkward neck, shoulder, wrist, and torso postures due to the location across the bus as well as the lack of adjustability

**RESULTS:**

- Adjustable computer components purchased and computer area modified
- A new design (to eliminate safety hazards, create better work flow, and provide full adjustability) was created to be presented to the manufacturer of the mobile bus unit. Management of the Health Sciences Centre stated that they would utilize this design in future bus acquisitions

**GROUP CASE: SURPRISING VOLATILE ORGANIC EXPOSURE FROM A UV PRINTING PRESS**

- Noticeable safety hazards present due to the set up and layout of all the equipment within the bus

**RESULTS:**

- Adjustable computer components purchased and computer area modified
- A new design (to eliminate safety hazards, create better work flow, and provide full adjustability) was created to be presented to the manufacturer of the mobile bus unit. Management of the Health Sciences Centre stated that they would utilize this design in future bus acquisitions
A letter of request from the plant JHSC co-chairs outlined a concern related to hazard phrases on the MSDS for an epoxy coating. During the visit, exposed workers also mentioned that they were concerned about symptoms they had been experiencing in greater frequency over time.

Direct reading measurements for respirable and ultrafine particulate were taken over the start up and running of the epoxy coating line. During the brushing down of a drum at start up, peak particulate concentrations reached up to 40 mg/m³ for a 5-10 minutes, however concentrations were generally below 0.05 mg/m³ during operation. The operator experienced peak exposures up to 1 mg/m³ when opening the enclosure and cleaning the internal surfaces. The respiratory protection worn was only adequate to protect against exposures up to 4 mg/m³. Thus, it was recommended that workers brushing down the filter cartridges be provided with a powered air purifying respirator with a full face-piece, along with disposable coveralls. Furthermore, this increased frequency over time.

RESULTS:

The recommended improved personal protective equipment and have committed to retesting for Stoddard Solvent under variable work conditions to better understand the risk.

```
Thank you so much! Our Joint Health and Safety Committee will review this ASAP, and look forward to implementing your recommendations. We really appreciate your advice, your time and your visit. Thanks again.”
  ~ From an Employer
```

Horizon Plastics requested assistance with the establishment of an Ergonomics Change Team and an Ergonomics Program in 2013. The company had set a target to review a number of jobs and implement changes to one job in its first year. Over a two year period, OHCOW Hamilton has supported the initiation and continued education of the team.

To activate the team, OHCOW worked with the organization to provide a full day workshop on MSD risks, identifying hazards, assessment tools, possible controls, cost-benefit analysis, and solution implementation, this included going out onto the production floor and assessing different tasks using the Quick Exposure Check (QEC).

In 2014 OHCOW returned to provide an in-depth workshop on MSD hazard assessment: developing ideas, and evaluating and prioritizing solutions for one particular area with a high injury risk. The recommendation was proposed to management, approved and implemented. The solution has resulted in measurable improvements to worker discomfort, quality, waste and productivity.

The Ergonomics Team continues to address concerns in the workplace and expand its efforts related to job assessments and improvements. The have established the use of a number of tools to meet their needs, including the OHCOW QEC tool, the Washington State checklists and the UK HSE Vibration Calculator. The Ergonomics Team recently presented at a CRE-MSD conference highlighting the success of its Ergonomics Program.
SERVICE TO VULNERABLE WORKERS

OHCOW’s ability and track record as a frontline occupational health organization provides for wide ranging contact with precarious and vulnerable workers. We have extensive experience assisting individuals directly at community based clinics, as part of a small group during workshops and providing materials and tips in Fair settings. In addition, OHCOW’s unique and longstanding role in many community social action partnerships makes us a trusted resource for vulnerable workers and for those who support them.

A primary program in recent years has been targeting assistance to migrant farm workers, and the networks created are now leading us into expanding and diversifying to provide immigration and refugee worker support. An initial foray in this area was participating in the planning and delivery (including offering an OHCOW clinic) at the 2014 Guelph Newcomer Health Fair and we look forward to more endeavours in this area in 2015/16.

Early 2015 brought enhanced outreach to the employers of vulnerable workers, particularly farmers, by participating in several conferences and tradeshows, developing and providing materials and information targeted to their needs, creating free Resource Tool Boxes to support their health and safety management efforts, and updating the OHCOW website for clarity and accessibility.

Agricultural workers are exposed to a variety of occupational hazards including intense physical labour, repetitive motion, long working hours, pesticides and fertilizers, heat, sun, dusts, mechanized equipment and falls from platforms and farm vehicles. After running a series of seasonal projects since 2006, the Occupational Health Clinics for Ontario Workers now has permanent funding for a program specifically focused on supporting Ontario’s migrant farm workers and their employers. As part of OHCOW’s MFW program, we provide interdisciplinary clinical services to this vulnerable worker population along with distribution of information tools and resources, delivery of educational sessions, and engagement and collaboration with employers, as well as community partners.

MIGRANT FARM WORKER PROGRAM—2014/15 HIGHLIGHTS

CLINICAL AND PREVENTION SERVICES

Nine clinics were held in high density MFW areas from June to October 2014, with 102 workers assessed; 4 in Simcoe in collaboration with Grand River CHC (as part of a series of new LHIN funded MFW clinics) and 1 each in Beaverton, Bradford, Carlisle and Niagara-on-the-Lake, plus the Simcoe Health Fair. In general we addressed:

- Occupational and general health concerns for workers without access to primary care services (~50% of issues are directly occupational)
- Orientation of primary care staff to: barriers and specific needs of this population regarding health; recognizing occupational health issues; prevention and work modification which may be warranted; recognition of work impact on non-occ. conditions and vice versa; WSIB and the claims process.

Evaluation and assessments were carried out on an ongoing basis to review strategies to connect with the farm workers, and to confirm a systematic program better able to offer complete and effective services.

OCCUPATIONAL HEALTH WORKSHOPS & FAIRS

Nine workshops were conducted over the season, on farms, at fairs, to medical and nursing students as well as partner agencies. 215 workers participated in the communities of Carlisle, NOTL, Beaverton, Newcastle and Bradford. Topics included heat/sun safety, eye health and safety, and a general health at work (hygiene, pesticide safety, poisonous plants, muscle strain and injury prevention). Each also included a review of the Occupational Health and Safety Act and WSIB entitlements.

We continued to prioritize attending MFW health fairs (6) as they allow us to offer services and resources to a large number of migrant workers (415 total) in many areas of Ontario (Simcoe, NOTL, Virgil, Beaverton, Clarington & Cobourg). Health fairs also provide an opportunity to connect with local service providers and stakeholders.
of the content is now posted at http://www.ohcow.on.ca/mfw_resources.

EMPLOYER OUTREACH

Building on the success of employer outreach in 2014, the winter of 2015 saw the MFW program attend 3 agricultural producer gatherings, providing outreach to a large number of farmers on occupational health and safety topics related to farming and outdoor work, as well as specifically on the Program itself. Connections made led to requests for Resource Tool Boxes and on-the-farm workshops for migrant workers, plus they provided the opportunity to get better connected to the Ontario farming community, build trust, and better understand the occupational health needs of farm workers and their employers.

With 35 direct contacts, the Guelph Organic Conference opened up great opportunities to connect to smaller scale farms across Ontario who hire some migrant farm workers, but also Canadian interns and youth workers. Overall these employers seemed to have little awareness of occupational health and safety responsibilities and resources, and therefore will be a group that we target in future. The Ontario Fruit and Vegetable Convention in February allowed outreach to several large scale producers as well as associations and other organizations with whom we hope to partner in future.

INQUIRY SERVICES

At no charge to the client, our inquiry services provide confidential access to general occupational health and safety information and respond to workplace safety and health-related questions about occupational exposures, illnesses and injuries. A majority of inquiries in 2014-15 originated through our work with the prevention system partners, unions and OHOW’s outreach events in the community. Questions received were mainly focused on general health and safety information, occupational hygiene and ergonomics.

INQUIRIES BY SOURCE

1 Others included Legislation, Environmental, Toxicology, and Multiple topics
2 Others included Employers, Injured Workers Group, Learning and Research Institutions, and Legal clinics
Our experience with OHCOW was wonderful—everyone was amazing, knowledgeable, compassionate, easy to contact and very helpful. I felt they were just a call away.”
- Individual patient feedback

“I felt that the staff who dealt with me were caring, understanding, patient & knowledgeable. I believe this service is extremely important & should be kept.”
- Individual patient feedback

OHCOW website is a rich source of health and safety resources and provides information on OHCOW services and upcoming educational sessions and conferences. The website also features information on each of the six OHCOW clinics, their respective catchment areas and community linkages.

2200 average unique visitors per month
26,192 total new users

Visitors by Geographic Location

38,294 sessions in the year from
50 different countries
30,028 from Ontario
3537 from the rest of Canada
2576 from the United States

plus significant traffic from the UK, Australia, India, and Germany

Outreach & Education

Through research, communication, tool development and educational services, OHCOW aims to contribute to the mobilization of occupational health knowledge in order to have a broad and positive impact on prevention activities and strategies. Every year OHCOW staff delivers formal knowledge transfer sessions tailored to the needs of workers, workplaces, employers, community organizations, prevention system partners and research partners. OHCOW publishes various information materials in the form of factsheets, brochures and workbooks focused on various occupational hazards, exposures, diseases and injuries. These resources are offered at no charge and are easily accessible from our website.

Visit more at www.ohcow.on.ca/resources.

Knowledge Transfer Sessions by Topic Areas

Legislation Review 40%
Workplace Violence & Harassment 15%
Ergonomics 13%
Hygiene 8%
OHCOW services 7%
Psychosocial hazards 7%
Others 11%

1 Others include: Agricultural Health and Safety, Psychosocial hazards; Hand Arm Vibration Syndrome; General health and safety.
Fiscal 2014/15 went out with a very successful knowledge transfer event, RSI+ Day—marking the 16th anniversary of International RSI Day with some “pluses”: a broader Occupational Health focus; involving every OHCOW Ergonomist; and a month later to reduce travel risk to the northern venue.

492 participants:
- 112 at the eDome in Sudbury, ON
- 262 throughout Ontario
- 100 in the rest of Canada
- 18 locations outside Canada, including: California, Florida, Washington, Michigan, Tennessee, Texas, Australia, Tasmania, United Arab Emirates, South Korea, and Hong Kong.

Attendees were professionals and lay people from many sectors, including: municipal and provincial government; school boards, universities, and colleges; mining and forestry; unions and public service organizations; public health, hospitals, and nursing homes; insurance, hospitality, utilities, and transportation.

Popular and relevant subjects included:
- Designing an MSD (Musculoskeletal discomfort) App
- Safe Lifting
- To sit or not to sit – that is the question
- Planning Your Next Step; The Brain’s Connection with Movement
- Documenting the Physical Demands of Work: OHCOW’s PDD Handbook
- Upper Limb Musculoskeletal Disorders

Presentation slides and a video of the full proceedings are linked from the website at www.ohcow.on.ca.

Part of OHCOW’s role in the OHS System is to use its collective expertise to critically assess and comment on legislative initiatives. In 2014/15 there were two opportunities to comment on legislative change—with respect to the Occupational Exposure Limits in May, and Noise Protection in December. In both cases, OHCOW provided evidence recommending lowering limits further than had been proposed.

Plus OHCOW participated in 2 presentations to the Mine Safety Review committee in December:
- Can we measure the effectiveness of the internal responsibility system? By J. Oudyk,
- Fatigue: Exploring the Health and Safety Implications by J. Oudyk, M. Tew, C. Vandergriendt

The submissions are archived on the website under Past News.
The MIT survey has now been out for 2 years. The 2014/15 year began with a calming in the number of requests from workplaces to administer it. Two particular requests of note were the staff of a large union and a trucking firm.

The union staff members (400+) did the survey and achieved an 85% participation rate. The comments provided were especially rich in describing their workplace stress experience, so a comprehensive qualitative analysis was done for the first time, and results were reported regionally.

The trucking firm responses compared quite well with the norm for most factors except hours of work—unexpectedly, emotional demands were a dominant concern. As a result, the workplace has initiated Friday afternoon social gatherings (e.g. BBQ) which they hope will address this concern. As the year ends we have been laying the groundwork to conduct a number of very large surveys (1000+ each) in another trucking firm, among correctional workers, and across number of educational facilities.

In addition, the group partnered with the Workers Health & Safety Centre to incorporate the survey into their revised 3-hour workplace stress module; posters relating to the MIT were accepted at two major Canadian conferences; and we were also invited to share our experience at the International Copenhagen Psychosocial Questionnaire (COPSOQ) Users Group meeting October, 2015 in France.

However, the highlight of the year was the collaboration with the CCOHS, to convert a shortened version of the COPSOQ into a smartphone app. The app was launched at the OHCOW 25th Anniversary Conference in October 2014 and within 6 months had >1000 downloads. We also delivered a webinar with CCOHS (Taking Action on Workplace Stress) which set a record for registration (1000+).
Physical Demands Descriptions (PDDs), often referred to as Physical Demands Analyses (PDAs), are used for numerous reasons by a variety of internal (e.g. HR, Health & Safety, Engineering, Supervisors) and external (e.g. physicians, other healthcare providers, insurance adjudicators) groups. They are intended to provide a detailed overview of the physical demands of a particular job. The current challenge is that there is no set standard as to how they are documented or how physical demands are measured and reported.

A new handbook was written by OHCOW staff and partners to provide guidance on the process that should be taken in any workplace when completing PDDs to ensure that they are both objective and accurate. It discusses how to prepare to conduct PDDs, observation and data collection, and reporting. It highlights all of the physical demands that should be captured and how they should be measured. A template was also designed in an attempt to bring standardization to PDDs that include objective measures, with an ultimate goal of becoming a national standard. The template was intentionally designed to collect measures that can be directly inputted into risk assessment tools used by practitioners. It is available online or in print version by contacting info@ohcow.on.ca. And in 2015 it is going to be adapted for standard use by the WSIB in new guidelines for employers.

Again in partnership with the CCOHS, a joint team began working on the combination and extrapolation of an ergonomic survey tool (in the form of a body map), a severity predictor and general and task-specific recommendations into a smart phone application in early 2015. The app will be completed in early summer and launched during Ergonomics month in October 2015.

The OHCOW Pain Point app will deliver a very basic ergonomic assessment by running through a series of diagrams and questions to pinpoint musculoskeletal pain, identify possible sources, and discover practical solutions on a smartphone. The results are depicted on a body map, with recommendations to address work-related MSD hazards that could be contributing to your discomfort. No personal data is collected, but summary results can be shared with others (at the individual’s discretion) in order to report hazards or foster solutions.
Researchers include Oc
p. 37
Niagara regions along with a
ed MFW clinics in Simcoe and
evaluation of the LHIN-fund
OHCOW participated in the
HEALTH CARE
ACCESS TO PRIMARY
INITIATIVE TO INCREASE
ONTARIO: EVALUATING
WORKER HEALTH IN
MIGRANT AGRICULTURAL
Master University (S. Mayell)
and Safety Represen-
tion: A Cluster Analysis,” accepted
for publication in the Ameri-
can Journal of Industrial Med-
ical in the next fiscal year.
The survey responses were
studied further using a statis-
tical technique called cluster
analysis, and 3 groups were
identified. Two were labelled
based on categories previ-
ously identified by research
published by Alan Hall (2006),
also the principal investigator
in this project, Technical Le-
gal (worker reps who only go
by the “rules”), and Knowl-
edge Activists (individuals
who collect information on
hazards and organize work-
er support for change). The
third group was character-
ized as less experienced reps,
still evolving in their repre-
sentational style. The analy-
sis was summarized in a pa-
paper, “Identifying Knowledge
Activism in Worker Health
and Safety Representation: A
Cluster Analysis,” accepted
for publication in the Ameri-
can Journal of Industrial Med-
ical in the next fiscal year.

MIGRANT AGRICULTURAL
WORKER HEALTH IN
ONTARIO: EVALUATING
A PROVINCIAL PILOT
INITIATIVE TO INCREASE
ACCESS TO PRIMARY
HEALTH CARE
OHCOW participated in the
evaluation of the LHIN–fund-
ed MFW clinics in Simcoe and
Niagara regions along with a
graduate student from Mc-
Master University (S. Mayell)
and Dr. J. McLaughlin (Wil-
frid Laurier). There were 402
workers seen at the clinics
(visits = 715). Client survey re-
spondents (N=86) stated their
health needs were met and the
location of the clinic was easy
to find. Occupational health
issues and chronic health is-
ues remain prominent. Al-
though these programs ex-
ceeded projected targets, only
5% of the MFW population in
the two regions was served.
Providing follow-up and sec-
ondary care remained chal-
enging. The results of this
research will be presented at
the International Conference
on Rural Health in Italy in
September.

OHEP
As a response to the concerns
about future health implica-
tions raised by Hamilton Fire-
fighters (IAFF 188) attending
the Plastimet fire in 1997, City
of Hamilton agreed to fund a
25 year program to monitor
their health and exposures.
Occupational Health Works
Inc. (OHW), in partnership
with OHCOW, were awarded a
contract to provide services
for the Occupational Health &
Exposure Program (OHEP)
program. OHCOW is responsi-
ble for supplying a physician,
plus the group analysis of the
data collected (including: lab
tests; a pre-test questionnaire
of possible associated factors,
occupational exposure and
medical history, lung function
and chest X-rays, and medical
interview and exam).
The program is designed “to
detect any patterns in the
work force that might indi-
cate underlying work relat-
ed problems.” OHCOW re-
cieves and analyzes data to
look for patterns and trends
over time. Any exposure re-
lated trends detected would
trigger deeper study. Because
there is an enormous amount
of data accumulated over
to phases of the program, a
graduate student was hired in
Q4 to “clean” it up—identifying
unusual entries and then
checking them against the
originals in patient files. This
extensive cleaning sets the
stage for reliable analysis of
the cumulative data collected
between 1999 to 2015.

ONGOING RESEARCH
PROJECTS OF NOTE
• Completing the Picture:
Collecting workplace ex-
posure information from
community health centres’
patients
• Researchers include Oc-
cupational Cancer Re-
search Centre (OCRC),
Centre of Research Ex-
pertise in Occupational
Disease (CREOD), in part-
nership with researchers
from Centre of Research
Expertise for the Preven-
tion of Musculoskeletal
Disorders (CRE-MSD), and
Laurentian University.
OHCOW and PSHSA play a
consultative role.
• Early Detection of Lung
Cancer and Mesothelioma
in Prior Asbestos Workers
Using Low–Dose Computed
Tomography (LDCT), with
Princess Margaret Hospital
(PMH)
• “Impact of Lung Screening
on Quality of Life (QOL) in
Asbestos-Exposed Workers”,
with PMH and researchers
from Brock University

RESEARCH
LOARC
In April 2014, the Labour,
OHCOW, Academic Research
Collaboration (LOARC) re-
leased a summary of findings
from a 2012 research proj-
et as a guidebook for health
and safety reps. It contains
the findings of a survey of
888 reps along with 8 success
(garnering change) stories,
plus 10 principles for guid-
ing effective participation in
health and safety improve-
ments—all distilled from
50+ individual respondents
ments—all distilled from
1000+ participants who
did extended interviews.
Electronic copies were sent
to the 600+ participants who
had requested it, plus it was
posted on various websites
including OHCOW’s.
COLLABORATIVE PARTNERSHIPS

OHCOW continues to build on its innovative partnerships with organizations working with vulnerable populations and small workplaces in development of new resources and new prevention solutions.

CANADIAN CENTRE FOR OCCUPATIONAL HEALTH AND SAFETY

Long a valued partner of OHCOW in dealing with inquiries, 2014/15 brought the two organizations closer together in the development of the Health and Safety System’s first smart phone application (app): Measuring Stress at Work. The relationship deepened further in the development of a detailed grant proposal to design, deliver and evaluate several more apps within a year. And, despite the associated funding uncertainty, work progressed jointly on developing an MSD Prevention App, and overseeing the efforts of Algonquin College students to convert an existing OHCOW Indoor Air Quality Tool into an app format. Both of these products ended the year basically complete and will be fine-tuned, uploaded and released in 2015/16. Definitely a year of accomplishment, setting the stage for a future of cooperation, creativity and synergy.

YOUTH ENGAGEMENT PROGRAM—PREPARING YOUTH FOR THE WORKPLACE

The Windsor Occupational Health Information Service (WOHIS), the University of Windsor Labour Studies Program, and the Occupational Health Clinics for Ontario Workers (OHCOW) are now in year three of a five year United Way funded strategy, offering three engaging and interactive classroom presentations for grades 10, 11 and 12 regarding: 1. Occupational Health & Safety, 2. Workplace Violence & Harassment, 3. Employment Standards.

OHCOW provides a guest speaker, who works in collaboration with university Peer Youth Leaders and the high school teacher(s). The strategy is unique, and its success is due to students speaking to other students—allowing them to relate and learn from one another.

VULNERABLE AND MIGRANT FARM WORKERS

Community partnerships continue to be critical to moving the MFW program forward, particularly in connecting to workers in new regions. This year we engaged in work directly with Grand River and Quest (Niagara) CHCs, plus we were involved in 8 partnerships with community-based organizations: the Bradford MFW support group Project el Sembrador; the AIDS Committee of Durham Region; Toronto-based migrant farm worker support group ENLACE; the Durham Region Migrant Farm Worker Support Network; Haldimand–Norfolk Resource Centre; Ontario Council of Agencies Serving Immigrants (OCASI); Growing Community Health-Guelph; the Guelph Newcomer Access to Health services committee, Immigrant Services Guelph-Wellington; and Niagara Migrant Worker Interest Group. In addition we have developed links with clinics serving refugees and immigrants in Kitchener and Hamilton who are certain to become future partners.

PARTNERS IN PREVENTION

OHCOW Leadership and technical staff work regularly with their peers in the Ministry of Labour, Workplace Safety and Insurance Board and the 5 other prevention organizations on a variety of projects and system initiatives. In addition, OHCOW tools, and the research behind them, are often incorporated into Workers Health and Safety Centre training modules.

Fiscal 2014/15 saw the formalization of a system network of ergonomists into the Ergonomic Integrated Planning and Advisory Committee (EIPAC) which was led by OHCOW ergonomist, Curtis VanderGriendt, for much of the year. They have been highly focused and productive, developing a multi-year action plan, organizing a System Learning Day and setting the stage for an Ergo Month in October 2015.

“I believe each clinician; pioneer and tireless workplace safety advocate at OHCOW have provided our country with an immense amount of value.”

— Steve Horvath, President & CEO, CCOHS