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THE ONTARIO OCCUPATIONAL DISEASE STRATEGY FRAMEWORK

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Occupational Disease Prevention Committee

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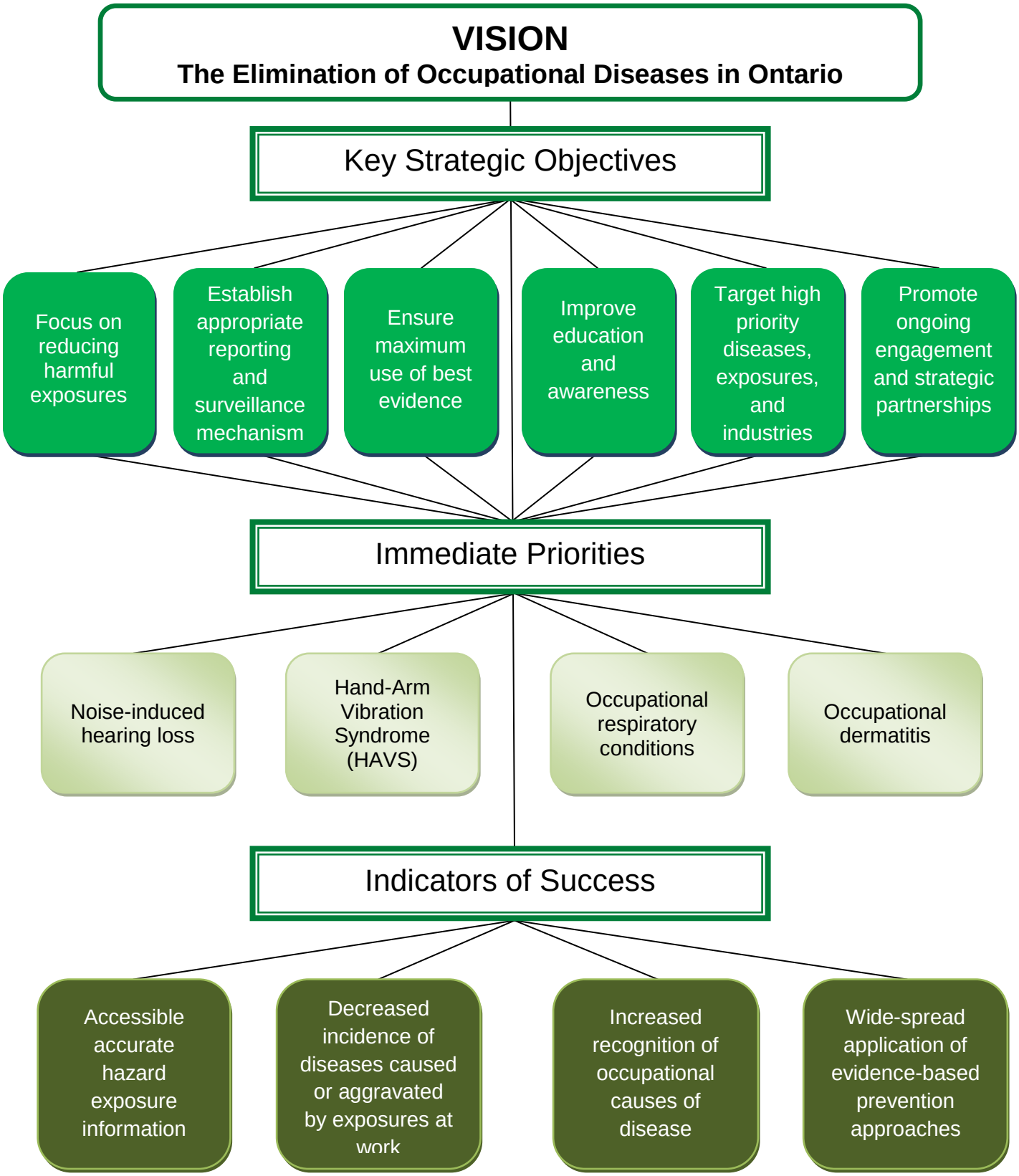
The Ontario Occupational Disease Strategy Framework



Background

In 2008, the Workplace Safety and Insurance Board (WSIB) published its *Road to Zero: A Prevention Strategy for Workplace Health and Safety in Ontario (2008-2010)*. This strategy laid out the Ontario Prevention System's a platform for eliminating injuries, illnesses, and fatalities in Ontario workplaces. Because the majority of WSIB claims are for traumatic injuries, the prevention strategy focused primarily on these. It did not address to the same extent the prevention of occupational disease. But although the number of occupational disease claims is comparatively small, the average cost per claim is four times that of an average injury claim. The social and personal cost of an occupational disease claim is often incalculable.

The prevention of many occupational diseases also presents unique challenges, and requires different approaches from those that target injuries. Occupational diseases are frequently not recognized as being related to workplace exposures. For many diseases, the occupational exposure which contributed to their development occurred many years ago. As well, occupational diseases often result from repeated exposures to harmful agents over many years rather than a single exposure.

For these reasons, a working group representing employers, the Ministry of Labour, the Health and Safety Agencies including the labour-based Occupational Health Clinics for Ontario Workers (OHCOW), the research community, and the WSIB was tasked by the WSIB to develop a framework for the prevention of occupational diseases.

The framework presented here is intended as a foundation for the development of prevention strategies for specific diseases and exposures.

Vision and underlying principles

Vision

The elimination of occupational diseases in Ontario.

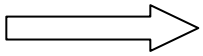
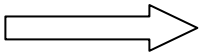
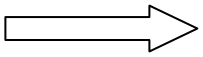
Principles

The framework was developed with the following principles in mind:

- Ensure that occupational disease prevention is integrated and aligned with current occupational health and safety strategies
- Build on and strengthen existing strategies and approaches, both in Ontario and elsewhere
- Ensure support for Ontario workplaces in becoming world leaders in occupational disease prevention.

Scope

For the purpose of this strategy framework, occupational disease is defined as a disease caused by biological, chemical or physical (including noise and vibration) agents in the workplace. Psychosocial and musculoskeletal conditions are not addressed in this framework.

EXPOSURE		HEALTH OUTCOME
Chemical Agents		Respiratory conditions Cancers Dermatitis
Biological Agents		Infectious diseases
Physical Agents		Noise-induced hearing loss Vibration-related conditions

A case for action

Prevention of occupational diseases differs from the prevention of occupational injuries in a number of important ways:

- The cause and effect relationship between exposures and occupational disease is often not obvious. Many diseases do not develop immediately. Some, like noise-induced hearing loss, develop very gradually. Others, like occupational cancers, can occur more than 20 years after the worker was initially exposed.
- Many diseases do not develop as a result of a single exposure to a hazardous substance. Rather, it is the cumulative effect of years of exposure that results in occupational disease.
- Most diseases have a number of causes, both occupational and non-occupational.
- Many exposures that can cause occupational diseases are not detectable by workers or employers.

Many workers in Ontario are exposed to hazardous substances that put them at high risk of developing diseases. However, the risk of developing an occupational disease is not distributed evenly across the working population.

Occupational diseases result in significantly more deaths and occupational fatality claims than do traumatic workplace injuries.

In Ontario, the average cost per disease claim is four times higher than the average injury claim. The largest disease category, in terms both numbers and cost, is noise-induced hearing loss. There were more than 3,500 hearing loss claims compensated in 2009 with an estimated cost of almost $90 million. Moreover, hearing loss claims are steadily increasing at a rate of approximately 10% per year in the past 10 years. The number of occupational cancer claims is relatively small; however, the cost of a single fatal cancer claim can range from $300,000 to more than $500,000.

The cost of occupational diseases is not borne solely by the compensation system. Since most occupational diseases are not identified as being caused by work, there is a significant cost to the provincial health care system.

For employers the costs of occupational diseases are significant, and include compensation costs, third party insurance, loss of productivity, and the recruitment and training of replacement workers.

The greatest cost is to the workers themselves, through loss of earning potential, unemployment, reduced quality of life, and in some cases, significantly shortened life expectancy.

The Burden of Occupational Disease

It is very difficult to determine the true number of diseases that can be attributed to work. It has been long recognized, both in Canadian and international jurisdictions, that workers' compensation claims for diseases represent only a small fraction of the disease cases and costs that can be attributed to occupational exposures.

Much of the work done by researchers to understand the true burden of occupational disease has focused on cancers and carcinogens. In developed countries, estimates of the proportion of cancer deaths in the general population that can be attributed to occupational exposures range from 4% to 20%[1]. In some groups such as blue-collar workers, the risk is much higher. It is estimated that more than 600,000 Ontarians may be exposed to carcinogens other than solar radiation at work[2] .

Occupational noise-induced hearing loss is the largest category of occupational disease compensation claims in Ontario. It is estimated that worldwide, 16% of disabling hearing loss is due to occupational noise[3].

Other occupational diseases that are commonly associated with workplace exposures are respiratory and skin conditions. Longitudinal studies have found that more than 16% of adult-onset asthma[4] and 15% of chronic obstructive pulmonary disease (COPD)[5] is caused by occupational exposures. Hand dermatitis cases accounts for 9 to 35% of all recognized occupational disease cases.[6] Similar to occupational cancers, workers in specific occupations and industry sectors are at far higher risk for developing these non-malignant conditions.

Somewhat unique to Ontario is the significant increase in compensated cases of Hand-Arm Vibration Syndrome (HAVS). Since 2002, the number of allowed claims for HAVS has increased

[1] ID Ivanov & K Straif (2006). Prevention of Occupational Cancer. Global Occupational Health Network Newsletter, World Health Organization, (11).
[2] CAREX (2009).
[3] DI Nelson, RY Nelson, M Concha-Barrientos (2006).The global burden of noise-induced hearing loss. Noise & Health, 8(30): 60.
[4] K Torén & PD Blanc (2009). Asthma caused by occupational exposures is common – A systematic analysis of estimates of the population attributable fraction. BMC Pulmonary Medicine, 9 (7).
[5] P Boschetto et al. (2006). Chronic obstructive pulmonary disease (CODP) and occupational exposures. J of Occ Medicine and Toxicology, 1 (11).
[6] HA Smit, A Burdof & PJ Coenraads (1993). Prevalence of hand dermatitis in different occupations. Int J of Epidemiology, 22(2), 288-293.

almost 20% per year. The underlying burden of this condition in the working population is not known.

Current State of Occupational Disease Prevention in Ontario

In Ontario, three inter-related entities have the mandated responsibility for occupational health and safety, namely, the Ministry of Labour, the WSIB, and the Health and Safety Associations. Within each entity, there are a number of initiatives underway aimed at preventing occupational disease.

Ministry of Labour

The Ministry of Labour (MOL) oversees and enforces the Occupational Health and Safety Act (OHSA) and the health and safety regulations. This includes responsibility in Ontario for enforcing the national Workplace Hazardous Materials Information System (WHMIS) program. WHMIS is a comprehensive plan for providing information on the safe use of hazardous materials used in Canadian workplaces. Information is provided through product labels, material safety data sheets (MSDS), and worker education programs. In addition to WHMIS, MOL is responsible for developing and enforcing Occupational Exposure Limits (OELs) and the Designated Substances Regulations (DSRs).

Within this framework, the MOL carries out proactive and reactive inspections of Ontario workplaces, including orders and prosecutions where appropriate. This work is conducted by the ministry's health and safety inspectors with the support of engineers, physicians, and occupational hygienists.

In recent years, the MOL has undertaken a number of legislative and non-legislative initiatives pertaining to occupational disease, specifically:

- Noise requirements to address noise-induced hearing loss
- A major revision of an asbestos regulation that addresses exposures in construction, building, and repair operations
- Needle safety to prevent exposure to blood-borne infectious diseases
- Silica and lead guidelines for the construction industry.

The WSIB

Several initiatives have been undertaken through the WSIB Prevention Division, such as Fact Sheets and the inclusion of occupational disease prevention in the Workwell Core Audit.

The WSIB Research Advisory Council (WSIB RAC) has funded numerous research projects related to preventing occupational diseases. Two research centres established by the RAC have occupational disease prevention as part of the core mandate:

- The Centre of Research Expertise in Occupational Disease (CREOD), housed at the University of Toronto and St. Michael's Hospital
- The Occupational Cancer Research Centre (OCRC)[7], located at Cancer Care Ontario.

[7] OCRC is jointly funded by the WSIB, the Canadian Cancer Society, Ontario Division and Cancer Care Ontario.

Health and Safety Associations

Ontario's Health and Safety Associations (HSAs) include the sectoral safe work associations (SWAs), the Workers' Health and Safety Centre (WHSC), and the Occupational Health Clinics for Ontario Workers (OHCOW). The SWAs have developed extensive information and training materials on occupational disease hazards and exposures, tailored to their sectors. The WHSC has developed and delivers training programs on WHMIS, and on occupational disease hazards and control measures generally. OHCOW has developed extensive information materials together with prevention tools and resources on a wide range of exposures and health conditions. OHCOW also delivers interdisciplinary services to workplaces where workers have concerns about specific exposures.

The HSAs have worked with the WSIB and the MOL on some important joint initiatives. These include heat stress, work related asthma (through the provincial Asthma Plan of Action), and more broadly, on raising awareness of occupational disease hazards and WHMIS requirements.

However, collaboration by the HSAs on occupational disease prevention has generally been not nearly as comprehensive and focused as on injury prevention.

Gaps in the prevention of occupational disease prevention in Ontario

There are a number of gaps that significantly hamper our ability to prevent occupational diseases. These include:

Information

- We have a sense of what the main issues and concerns are, but there is no central repository of reliable data that can provide us with an accurate occupational disease or exposure 'snapshot'
- There is no effective reporting or surveillance of occupational diseases or exposures
- Early warning systems for health conditions are lacking
- There are very few reliable or accessible sources of information on the location of occupational disease exposures.

Public health presence

- Occupational health and safety is frequently overlooked by public health agencies
- There is a lack of alignment within the health system in general.

Strategic level alignment among prevention system partners

- There is a lack of awareness and recognition by prevention system partners of the magnitude of occupational disease
- The system's priorities with respect to occupational disease are very fragmented.

Alignment among key government partners

- There is a lack of strategic alignment by key prevention system partners, such as the WSIB and the Ministries of Environment, Health and Long Term Care, Health Promotion, Labour, and Education.

Knowledge and expertise

- Knowledge gaps exist related to burden, prevention and early detection
- There is a shortage of trained experts such as occupational hygienists and occupational medicine specialists.

Key Strategic Objectives

The Ontario prevention system should set for itself the following strategic objectives for the prevention of occupational disease:

1. Focus on reducing harmful exposures
2. Establish appropriate reporting and surveillance mechanisms
3. Ensure maximum use of best evidence
4. Improve education and awareness
5. Target high priority diseases, exposures, and industries
6. Promote ongoing engagement and strategic partnerships.

Objective 1: Focus on reducing harmful exposures

Ideally, exposures known to be hazardous should be eliminated. The *hierarchy of control* should be used to determine the best approaches to reducing potentially harmful exposures. These controls should be considered in the following order:

1. **Elimination of the hazard**
   Remove the hazard from the workplace.
2. **Substitution**
   Replace the substance or process with a less hazardous one.
3. **Engineering controls**
   These include designs or modifications to plants, equipment, ventilation systems, and processes that reduce the source of exposure.
4. **Administrative controls**
   Controls that alter the way work is done, including timing of work, risk assessments, signage and workplace policies. Administrative controls also include work practices such as standards and operating procedures, including, training, housekeeping, equipment maintenance and personal hygiene practices.
5. **Personal protective equipment**
   Equipment or clothing worn by workers to reduce exposure such as contact with chemicals or exposure to noise.

Many occupational diseases are rare and only manifest themselves many years after the first exposure. Moreover, many occupational diseases are exempt from experience rating in Ontario. Careful consideration should be given to providing financial incentives based on risk mitigation activities and programs focussed on reducing or eliminating exposures linked to

occupational diseases. Such incentives are key for small and medium-sized employers where very few cases of OD will arise.

Regulation, targeted enforcement, and effective compliance

A key component in the reduction of harmful exposures is compliance with current legislation and regulations. The Ontario Ministry of Labour is responsible for occupational health and safety legislation, and the development and updating of regulations and enforcement. Ontario currently has occupational exposure limits (OELs) for more than 725 hazardous biological and chemical substances.

The scientific basis for OELs continues to evolve. Since 2004, the MOL has been conducting annual reviews of its OELs to determine whether they need to be updated in view of the most current scientific and medical knowledge. The MOL is currently conducting its 2010 OEL review, and is consulting with stakeholders and the public on its proposal MOL to adopt new or revised OELs for 12 substances.

It is critical that employers, and especially small and medium-sized employers, have easy access to support and appropriate information that will assist them in complying with current legislation and regulations.

Key Actions:

1. Undertake exposure reduction initiatives in cases where exposure hazards cannot be eliminated, but the elimination of hazards should always be considered first.
2. Update occupational exposure limits (OELs) consistent with the current science.
3. Re-examine the exclusion of specific industries from current OELs.
4. Target inspections (industries/exposures) in accordance with identified priorities.
5. Provide employers with the support and tools needed to meet regulatory requirements.
6. Ensure HSAs and other prevention partners are able to assist employers in meeting existing regulations.
7. Base financial incentive programs, especially for small and medium-sized employers, in some part on exposure risk mitigation activities.
8. Consider establishing a mandatory reporting system for known hazardous substances. This information should be centrally housed and available to Ministry of Labour inspectors.

Objective 2: Establish appropriate reporting and surveillance mechanisms

Accurate data on occupational diseases and exposures to disease hazards are vital in identifying problem areas and monitoring improvements. An up-to-date disease surveillance system can provide an early warning system for some health conditions, especially those with short latencies.

Even more important for prevention is *exposure* surveillance, as this is directed at the exposures that precede disease. A key advantage of exposure surveillance is that it can provide more timely information on the risks that various workplaces agents pose for occupational disease, especially for long latency diseases such as cancer. In comparison to disease surveillance, exposure surveillance can reveal trends and risks and thus trigger prevention activities before disease has a chance to develop. Accurate exposure surveillance will lead to

understanding patterns of exposure, and the identification of high risk industries, agents, and occupations.

Several groups across Canada are interested in developing surveillance systems and registries. Most of these are focussed on a specific industry sector (e.g., construction), exposure (e.g., to asbestos), or disease. CAREX Canada, which is funded by the Canadian Partnership Against Cancer, has begun to compile and map environmental and occupational carcinogen exposures. A provincial surveillance system should build on existing initiatives; however, it should also collect data on non-malignant diseases and a range of high priority exposures.

Key Actions:

1. Develop an up-to-date accessible exposure surveillance system to target high risk/high prevalence exposure sources. Access to accurate and timely exposure information is critical for establishing exposure reduction targets, evaluating prevention initiatives, projecting future disease incidence, and identifying high risk occupations and industries.
2. Review existing national and international occupational disease and exposure surveillance systems and reporting programs to determine which approaches are most effective and can be adapted to the Ontario context.
3. Work in collaboration with CAREX Canada and other Canadian groups who are working on developing exposure and disease surveillance systems.
4. Focus surveillance initiatives on high priority occupational diseases and their known causes.

Objective 3: Ensure maximum use of best evidence

In order to be effective, occupational disease prevention needs to be based on the best current knowledge. Access to best evidence can be attained through two closely approaches:

i. Making full use of existing research knowledge and identification of research priorities
ii. Maximizing the role of medical and health and safety professionals.

<u>Research</u>

Occupational disease research has yielded a number of significant findings in the areas of disease causation, prevention and implementation of prevention programs. Some of these findings have formed the basis of prevention programs and products. However, there is important research knowledge that has not been put into practice. As well, many prevention programs are not based on current or best evidence. Ideally solid occupational disease research will be incorporated into prevention approaches and prevention initiatives will be based on the best current information. A stronger link between researchers and research users needs to be forged.

In many circumstances there is some evidence of an occupational cause for a disease but the science does not provide much guidance for practical prevention approaches. There are also many diseases where the association with occupational exposures in unknown or only speculated. Prevention in these circumstances is not possible. These areas of uncertainty need to be identified as specific priorities for future research.

Medical and health and safety professionals

Greater awareness in the medical community of occupational diseases is needed to improve diagnosis and outcomes. This is especially important for conditions such as occupational respiratory and skin conditions, where early diagnosis and removal from exposure can greatly improve prognosis.

There is also a need for more occupational medicine specialists and other subspecialists because diagnosis and association with exposures can be very complex.

Allied health professions such as nurses and health professionals including occupational hygienists play a significant role in identifying workplace hazards. This includes detailed occupational history taking and workplace assessments which may be crucial to identify the cause of thel disease and eliminate of further exposure, which is key to both primary and secondary prevention.

Key Actions:

Research

1. Work with key researchers, system partners and major stakeholders to identify high priority areas.
2. Engage researchers early in the design and planning of major prevention initiatives.
3. Ensure ongoing evaluations of occupational disease prevention initiatives to ensure they are having the intended outcomes.

Medical and health and safety professionals

4. Continue to work with the provincial medical schools to ensure that undergraduate medical training includes an appropriate level of occupational disease education in the curriculum (Occupational Health Champions Program).
5. Work with the Ministry of Health and Long-term Care to include occupational histories in the electronic medical records.
6. Increase the number of occupational medicine and other relevant specialists in the province.
7. Ensure the province has sufficient numbers of highly-trained prevention specialists such as occupational hygienists.

Objective 4: Improve education and awareness

Before employers and others take action to manage workplace health and safety, they must be motivated and have the appropriate skills to do so. Greater awareness and recognition of occupational disease risk by employers and workers, OHS professionals and health care providers is critical to the success of this prevention strategy.

Key Actions:

1. Targeted marketing aimed at increasing awareness of high priority issues.
2. Consider establishing occupational disease prevention awards to employers for excellent or innovative approaches.
3. Continue to enhance the knowledge and skills of key actors such as MOL inspectors and Joint Health and Safety Committee members to recognize, assess, and control disease-causing agents.

4. Provide focused hazard identification training for workers and employers.
5. Develop training for safety professionals to build a business case for occupational health and safety interventions.

Objective 5: Target high priority diseases, exposures, occupations, and industries

Although occupational diseases can affect all workers, not all workers are at the same risk. Risks vary by type of industry, occupation, and workplace. By targeting specific occupations and industries where the risk of developing an occupational disease is particularly high, significant improvements can be made in reducing the future incidence of disease in the province.

Occupational exposures vary in their toxicity and prevalence. Some exposures can cause several different diseases. The greatest advances in reducing occupational disease risk can be made by targeting exposures to which a large number of workers are exposed, are highly toxic or cause a range of occupational diseases.

A number of diseases are caused or aggravated by workplace exposures. However, many diseases are rare and their etiology is not well understood. The greatest likelihood of success is targeting diseases where the cause is well understood, for which effective prevention approaches are available, and the disease is relatively common.

Key Actions:

1. Identify high prevalence conditions which have known causes as the initial targets of this strategy. Noise-induced hearing loss, Hand-Arm Vibration Syndrome, and occupational skin and respiratory conditions are all relatively common conditions with fairly well understood etiologies.
2. The number of workers exposed to various occupational exposures is not well documented. However, enough is known about provincial industries to identify several exposures that are both fairly common and highly toxic. These should be considered as priority targets for prevention.
3. In some circumstances it may be more effective to target specific industries and occupations rather than individual exposures. High risk industries and occupations need to be identified and targeted prevention strategies should be developed to reduce the risk of occupational diseases.
4. Work with existing provincial initiatives to target high risk employers.

Objective 6: Promote ongoing engagement and strategic partnerships

A prevention strategy can only be effective if there is buy-in from all the major workplace parties. This includes workers, organized labour, employers, the health and safety associations, the WSIB, the Ministry of Labour, other government agencies, health care and health and safety professionals, and workplace researchers. Proactive engagement of key stakeholders and potential partners is critical to the success of major prevention initiatives.

The WSIB cannot undertake a successful occupational disease strategy on its own. It requires strong partnership with other governmental agencies, prevention system partners and key researchers to have a meaningful impact. For example:

- The Ministry of Labour has a very significant role in monitoring occupational exposures, enforcement of OELs, and co-ordinated target prevention initiatives
- There are significant health care system implications of occupational disease, therefore, the Ministries of Health and Long-Term Care and Health Promotion are key partners. Since workplace and environmental exposures are often the same, the Ministry of the Environment is a key partner, especially in relation to activities such as toxic use reduction initiatives.
- Public health agencies such as the Ontario Agency for Health Protection and Promotion (OAHPP)
- Health Canada through the National WHMIS office to improve training and ensure the accuracy of Material Safety Data Sheets (MSDS)
- The Ministries of Education and Colleges and Training to ensure appropriate job safety training and career selection guidance
- Other workers' compensation boards
- Research partners
- Partnerships with other organizations and initiatives, such as Cancer Care Ontario and the Asthma Plan of Action.

Key Actions:

1. Ensure buy-in for this strategy from key stakeholder representatives through targeted consultation.
2. Establish a committee to oversee the overall implementation of the occupational disease prevention. This committee should include representation from labour, employers, the prevention system, the Ministry of Labour, the WSIB and the research community.
3. Strike working groups that include key stakeholder representatives and subject matter experts for each of the high priority prevention initiatives.
4. Establish regular forums to provide status updates and to solicit feedback on the strategy and its subcomponents.
5. Prior to launching any occupational disease initiatives ensure cooperation and buy-in from the appropriate partners.
6. Build on existing or planned programs headed by other agencies.

Indicators of Success

Four major indicators of success have been identified:

1. Accessible accurate hazard exposure information.
2. Decreased incidence of diseases caused or aggravated by exposures at work.
3. Increased recognition of occupational causes of disease.
4. Wide-spread application of evidence-based prevention approaches.

Ideally, concrete prevention targets should be established. However, given the very limited information currently available on the real number of occupational diseases or the number of workers exposed to specific agents, it is not possible to set meaningful disease or exposure targets at this time.

For long latency diseases, disease incidence rates are a poor indicator of emerging trends since reductions in disease-causing exposures will not lead to decreases in rates for many years.

An immediate priority for this strategy is to begin to collect accurate and timely information on occupational disease and especially on occupational exposures.

Immediate Priorities

Based on overall prevalence and what is know about the causes of these diseases, four conditions have been identified as immediate priorities for prevention strategies:

- Noise-induced hearing loss
- Hand-Arm Vibration Syndrome (HAVS)
- Occupational respiratory conditions
- Dermatitis

To reduce the burden of these diseases, we must target prevention approaches for specific exposures, industries and occupations and turn our attention to the exposures of concern rather than the diseases of concern. This is particularly important for those exposures that cause several different disease outcomes. These targeted approaches will require further information gathering and consultation with key experts and stakeholders.

Next Steps

The following steps are needed to move the occupational disease prevention strategy forward:

1. Ensure buy-in for this strategy from key stakeholder groups through targeted consultation.
2. Establish a representative oversight committee to guide the implementation and refinement of the strategic framework.
3. Research prevention initiatives and approaches in the identified priority areas to determine which approaches are most effective and can be adapted to suit the province's needs.
4. Compile an inventory of the existing occupational disease prevention products being used in the province to determine whether they are based on current best practices and are effective in preventing disease.
5. Determine how the existing sources of occupational disease and exposure data can be improved, modified, or expanded to provide the information necessary to develop reliable performance indicators.
6. Assemble a working group of national experts to begin planning on the development of an exposure and disease surveillance system.

OCCUPATIONAL DISEASE PREVENTION STRATEGY FRAMEWORK

Overview

Key Strategic Objective	Required Actions
Focus on reducing harmful exposures	1. Undertake exposure reduction initiatives in cases where exposure hazards cannot be eliminated, but the elimination of hazards should always be considered first. 2. Update occupational exposure limits (OELs) consistent with the current science. 3. Re-examine the exclusion of specific industries from current OELs. 4. Target inspections (industries/exposures) in accordance with identified priorities. 5. Provide employers with the support and tools needed to meet regulatory requirements 6. Ensure HSAs and other prevention partners are able to assist employers in meeting existing regulations. 7. Base financial incentive programs, especially for small and medium-sized employers, in some part on exposure risk mitigation activities. 8. Consider establishing a mandatory reporting system for known hazardous substances. This information should be centrally housed and available to Ministry of Labour inspectors.
Establish appropriate reporting and surveillance mechanisms	1. Develop an up-to-date accessible exposure surveillance system to target high risk/high prevalence exposure sources. Access to accurate and timely exposure information is critical for establishing exposure reduction targets, evaluating prevention initiatives, projecting future disease incidence, and identifying high risk occupations and industries. 2. Review existing national and international occupational disease and exposure surveillance systems and reporting programs to determine which approaches are most effective and can be adapted to the Ontario context. 3. Work in collaboration with CAREX Canada and other Canadian groups who are working on developing exposure and disease surveillance systems. 4. Focus surveillance initiatives on high priority occupational diseases and their known causes.
Ensure maximum use of best	<u>Research</u> 4. Work with key researchers, system partners and major

evidence	stakeholders to identify high priority areas. 5. Engage researchers early in the design and planning of major prevention initiatives. 6. Ensure ongoing evaluations of occupational disease prevention initiatives to ensure they are having the intended outcomes. <u>Medical and health and safety professionals</u> 8. Continue to work with the provincial medical schools to ensure that undergraduate medical training includes an appropriate level of occupational disease education in the curriculum (Occupational Health Champions Program). 9. Work with the Ministry of Health and Long-term Care to include occupational histories in the electronic medical records. 10. Increase the number of occupational medicine and other relevant specialists in the province. 11. Ensure the province has sufficient numbers of highly-trained prevention specialists such as occupational hygienists.
Improve education and awareness	1. Targeted marketing aimed at increasing awareness of high priority issues. 2. Consider establishing occupational disease prevention awards to employers for excellent or innovative approaches. 3. Continue to enhance the knowledge and skills of key actors such as MOL inspectors and Joint Health and Safety Committee members to recognize, assess, and control disease-causing agents. 4. Provide focused hazard identification training for workers and employers. 5. Develop training for safety professionals to build a business case for occupational health and safety interventions.
Target high priority diseases, exposures, and industries	1. Identify high prevalence conditions which have known causes as the initial targets of this strategy. Noise-induced hearing loss, Hand-Arm Vibration Syndrome, and occupational skin and respiratory conditions are all relatively common conditions with fairly well understood etiologies. 2. The number of workers exposed to various occupational exposures is not well documented. However, enough is known about provincial industries to identify several

	exposures that are both fairly common and highly toxic. These should be considered as priority targets for prevention. 3. In some circumstances it may be more effective to target specific industries and occupations rather than individual exposures. High risk industries and occupations need to be identified and targeted prevention strategies should be developed to reduce the risk of occupational diseases.
Promote ongoing engagement and strategic partnerships	1. Ensure buy-in for this strategy from key stakeholder representatives through targeted consultation. 2. Establish a committee to oversee the overall implementation of the occupational disease prevention. This committee should include representation from labour, employers, the prevention system, the Ministry of Labour, the WSIB and the research community. 3. Strike working groups that include key stakeholder representatives and subject matter experts for each of the high priority prevention initiatives. 4. Establish regular forums to provide status updates and to solicit feedback on the strategy and its subcomponents. 5. Prior to launching any occupational disease initiatives ensure cooperation and buy-in from the appropriate partners. 6. Build on existing or planned programs headed by other agencies.