OHSCO

Occupational Health & Safety Council of Ontario

System Performance Measurement Report 2008:

Final Report

April 1, 2010

Prepared on behalf of the
Performance Measurement and Information Management Committee of OHSCO

Authors of the Report on 2008: John Speers (IAPA), Lynda Robson (IWH), Cameron Mustard (IWH)

Acknowledgements:
Key contacts within 16 OHSCO organizations supplied information used in generating the 2008 indicator data.

Table of Contents

Executive Summary

This summary provides a highlight of trends in performance indicators in the Ontario Prevention System. This report, for 2008, is the sixth in this annual report series and marks the final report describing the performance of the Ontario Prevention System under the stewardship of the 17-member Occupational Health and Safety Council of Ontario.

Monetary Resources

Total resources allocated to the Ontario Prevention System were $245 M in 2008. The majority of these resources were contributed by the Workplace Safety and Insurance Board, from insurance premium revenues paid by Ontario employers. These resources represent a public sector expenditure of approximately $37 per worker to protect and improve the work-related health of the Ontario labour force. Over the period 2000-8, Prevention System expenditures per worker have increased by 2% per year when measured in constant dollars.

System Alignment

In 2005, OHSCO members committed to a strengthened alignment of activities and priorities in five areas: 1) the High Risk Firm Initiative, 2) the development of an MSD prevention strategy, 3) the development of an Occupational Disease prevention strategy, 4) the measurement of the performance of the Prevention System and 5) emergency preparedness. In 2008, OHSCO members continued their focus on these strategic initiatives

Senior leaders of OHSCO member organizations continued to perceive improved alignment within the Prevention System in 2008 relative to the previous year, but their average rating of alignment indicates a decline since 2006.

Enforcement Activities

In 2008, the MOL issued 2.6 orders per 100 workers covered by the Occupational Health and Safety Act, a 64% increase relative to the rate of 1.6 orders per 100 workers issued in 2004, but a decrease of 13% from 2007. Field visits increased from 53,000 in 2004 to 94,000 in 2007 and orders increased from 90,000 in 2004 to 155,000 in 2008. The frequency of convictions per 100,000 OHSA-covered workers increased from 6.1 in 2004 to 22.1 in 2008. This increase in

inspection and enforcement activity reflects the outcome of additional resources allocated to the Ministry of Labour's Occupational Health and Safety Branch for the recruitment of 200 additional inspectors in 2005.

The ratio of orders to field visits has continued to decrease, following a peak in 2005.

Knowledge and Skill Transfer Activities

OHSCO member agencies provided about 274,000 participant-days of training/education services in 2008 through in-classroom and in-field training, confirmed self-directed training, awareness sessions and conferences. This represents 4.1 participant-days of training per 100 Ontario workers. In addition, 327,000 participant-units of training materials were distributed and 13.4 M website pages with prevention content were viewed.

There was further knowledge transfer through 183,000 hours of consulting and advising. This represents 2.8 hours per 100 Ontario workers. About 21% of this activity was directed to firms targeted through the Last Chance initiative.

Knowledge/Skill

Over 2006-8, a total of 70,941 people passed the Part One certification test, yielding a ratio of 1.1 people passing per 100 workers in 2008.

Hazardous Exposures

Information on hazardous exposures in Ontario is very limited but is available for motor vehicle travel. Over the period 2004-8, exposure to travel in the course of employment in a motor vehicle weighing < 4.5 tonnes decreased annually by 1%, whereas exposure to travel in a motor vehicle ≥ 4.5 tonnes increased annually by 3%.

Occupational Injuries, Illnesses, Disabilities, Fatalities and Cost

The frequency of lost time claims per 100 workers in Ontario has declined from 2.6 in 2000 to 1.7 in 2008, a reduction of approximately 5% per year over this period. Over the period 2000-2007, the frequency of absence from work for seven days or longer for work-related causes,

based on workers' self-reported survey responses, declined by approximately 0.8% per year. The year-over-year reduction in lost time claims between 2007 (80,863) and 2008 (78,256) represents a 3.5% reduction.

Over 2000-8, the rate of decline of lost time claims for musculoskeletal disorders has on average been less than for all injuries and illnesses (4.6% vs 5.2% per year). However, over 2007-8, the rate of decline of MSD claims was greater than that for all claims. Correspondingly, MSD claims as a percentage of all claims showed a slight decline from 43.7% to 43.3%.

Traumatic fatalities per 100,000 workers have declined by 5.8% per year over the period 2000-2008. A total of 78 traumatic fatalities occurred to workers insured by the WSIB in 2008. There were 257 occupational disease fatality claims accepted by the WSIB in 2008. Claim rates for fatalities arising from occupational diseases have increased by 7.6% per year since 2000.

There were 0.28 traumatic fatalities per 100,000 workers by means of motor vehicle accidents in 2008, representing a decline since 2000.

From 2003-8, the claim rate for 15-19 year olds declined to a *greater* extent than for 25-44 year olds (10.4% versus 7.6% per year). In 2008, the risk of a lost time injury for a 15-19 year old was 92% that for a 25-44 year old. In contrast, the rate of decline for older age groups was *less than* for 25-44 year olds and in 2008, the risk of a lost time injury for a 55-64 year old was 10% greater than for a 25-44 year old.

Claim rates were also examined in three groups of new workers (less than 1 month job tenure, 2-3 months, 4-12 months) and more experienced workers (13 months or more). Over the period 2003-2008, the claim rate for workers with one month or less experience has been almost four times higher than for experienced workers. The rates for workers with 2 to 3 months and with 4 to 12 months tenure, has been about 70% and 40% higher than for experienced workers, respectively.

Benefit costs for new compensation claims in Schedule 1 firms were $1.01 per $100 of insured payroll in 2008. This measure continues to show an elevation over the 2000-2005 period (when it ranged from $0.83 to $0.90). Nevertheless, benefit costs for new compensation claims per $100 of insured payroll in Ontario are the second lowest of all Canadian provinces (it was the lowest in 2006 and 2007). Total expenses incurred by the WSIB were $4.8 B in 2008, a decrease of 13% from 2007 total expenses of $5.5 B.

Introduction

Background

The Occupational Health and Safety Council of Ontario (OHSCO) is comprised of senior decision-makers from the public and not-for-profit organizations in the Ontario Prevention System. The following organizations were represented in OHSCO in 2008:

- Ontario Ministry of Labour (MOL)
- Workplace Safety and Insurance Board (WSIB)
- Construction Safety Association of Ontario (CSAO)
- Education Safety Association of Ontario (ESAO)
- Electrical & Utilities Safety Association of Ontario (E&USA)
- Farm Safety Association Inc. (FSA)
- Industrial Accident Prevention Association (IAPA)
- Mines and Aggregates Safety and Health Association (MASHA)
- Municipal Health and Safety Association (MHSA)
- Ontario Forestry Safe Workplace Association (OFSWA)
- Ontario Safety Association for Community & Healthcare (OSACH)
- Ontario Service Safety Alliance (OSSA)
- Pulp and Paper Health and Safety Association (PPHSA)
- Transportation Health and Safety Association of Ontario (THSAO)
- Occupational Health Clinics for Ontario Workers Inc. (OHCOW)
- Workers Health & Safety Centre (WHSC)
- Institute for Work and Health (IWH)

OHSCO provides leadership and guidance within the Prevention System to achieve its strategic vision, mission and purpose. Its mission is as follows: "On behalf of Ontario workers and employers, OHSCO inspires, leads and enables the creation of the healthiest and safest workplaces in the world, continuously working towards the goal of eliminating work-related injuries, illness and death in the province."[1]

OHSCO has overseen the production of annual performance reports on the Prevention System, since the report on 2003. This activity is overseen by the Performance Measurement and Information Management Committee.

[1] OHSCO Annual Report of Activities 2004

Development of the performance measurement framework and performance indicators

The measurement framework was first developed through the following steps:

- literature review
- program logic model development
- performance concept identification using multiple performance measurement approaches
- survey of OHSCO member preferences for performance concepts
- final selection of performance concepts

Details of these steps have been documented in a journal article.[2]

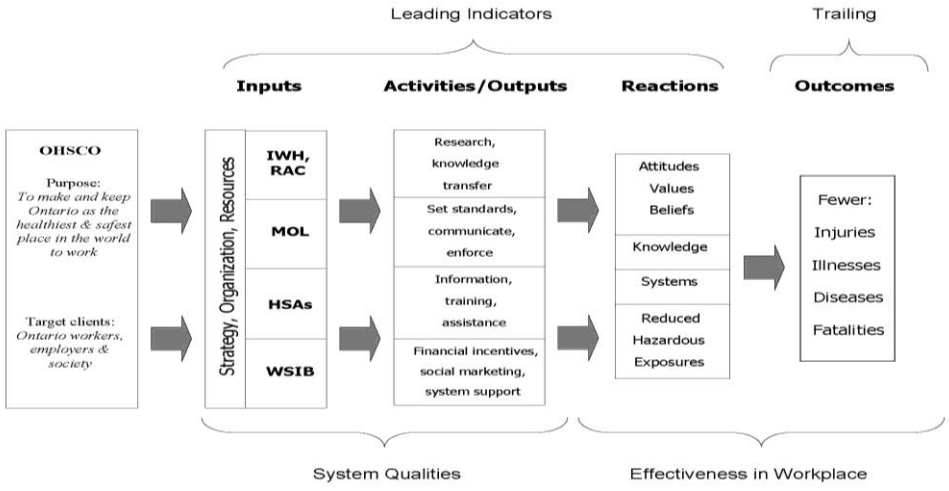
The framework has been developed further through:

- a workshop (March 6 2007), convened by the former System Measurement Subcommittee, with key contacts for performance measurement from OHSCO organizations[3] (Summary from OHSCO System Measurement Subcommittee Workshop)
- a session during a retreat for OHSCO members (March 8 2007). The Institute for Work & Health subsequently assessed the feasibility of indicators arising from the session on behalf of the System Measurement Subcommittee[4]

Program logic model

A program logic model was developed (Figure 1) to guide performance measurement development. It depicts the main activities and associated outputs within the Prevention System. Inputs, reactions and outcomes are also included. (Abbreviations are defined in Appendix A.)

Figure 1: Program logic model for Prevention System



[2] Robson LS, Speers JC, Kusiak RA, Burns BB. Development of a performance report for the Ontario Prevention System. Policy and Practice in Health and Safety 2007;5(1):3-18.
[3] Details in "Summary from OHSCO System Measurement Subcommittee Workshop," distributed December 2007
[4] Mustard C, Smith P, Robson L, Breslin C, Bielecky A. Measures of success: A report from the IWH OHSCO Liaison Team to the OHSCO System Measurement Committee, May 2007.

Performance measurement framework and performance indicators

Table 1 shows the eleven performance concepts in the current performance measurement framework. The table also includes the primary or *key indicators* of the measurement framework. There are also secondary indicators found in the Results section.

Table 1: Performance measurement framework for 2008 update

Logic model domain	Performance concept	Key System performance indicators[5]
Inputs	1. Monetary Resources	• Total System expenditures on prevention per Ontario worker (in 2008 dollars)
	2. Legislation & Regulations	• Significant changes regarding legislation and regulations (qualitative)
Outputs/ Activities	3. System Alignment	• Significant changes regarding System alignment (qualitative)
		• OHSCO member rating of alignment within the Prevention system
	4. Enforcement	• Orders per 100 OHSA-covered workers • Orders per field visit
	5. Knowledge/Skill Transfer	• Participant-days in certification training Pt 1 per 100 Ontario workers • Participant-days in certification training Pt 2 per 100 Ontario workers • Participant-units of training materials provided per 100 Ontario workers
Reactions	6. Client Satisfaction	• No system-wide indicator available
	7. OHS Values, Beliefs and Attitudes	No 2007 data available
	8. Knowledge/Skill	• Persons passing Part One certification test in last 3 years per 100 Ontario workers
	9. Hazardous Exposures	• Vehicle-kilometres (thousands) per Ontario worker
Outcomes	10. Occupational Injuries, Illnesses, Disabilities and Fatalities	• Lost time claims per 100 workers
		• Traumatic fatalities per 100,000 workers
		• MSDs as a % of lost time claims
		• Relative risk of lost time claim: 15-29 yr olds vs 25-44 yr olds
		• Relative risk of lost time claim: 55-64 yr olds vs 25-44 yr olds
		• Relative risk of lost time claim: 1 month job tenure vs 13+ mos.
	11. Cost	• Schedule 1 current year benefit costs per $100 of insured payroll

[5] Indicators are quantitative unless indicated otherwise.

Data collection in 2008

The authors collected data used in the report through various means:

- extracting data from publicly available documents
- requesting administrative data from key informants in Prevention System organizations
- arranging for custom tabulations of data by IWH and Statistics Canada

Public sources of information included WSIB annual reports, websites (WSIB, Association of Workers' Compensation Boards of Canada (AWCBC), Statistics Canada), and Statistics Canada public use data files.

Some data were used in their original form. Other data were transformed. Typically this involved transforming count data to rate data through a denominator based on the number of Ontario workers.

More details about the data sources are included in footnotes and Appendix B.

Aims of the report

The report aims to:

- serve as a "high-level" performance monitoring tool
- synthesize data collected from various sources
- support the development of a common view of the system by OHSCO members
- assist with OHSCO strategy development and planning
- suggest gaps in current data collection
- suggest gaps in current knowledge about the Prevention System, by highlighting trends or indicating relationships for which there is not current understanding.

This report does not aim to:

- replace the data collection of individual OHSCO members
- substitute for more intensive program evaluation activities
- establish causal relationships between performance concepts

Results

1. Monetary Resources (Input)

Concept description and rationale

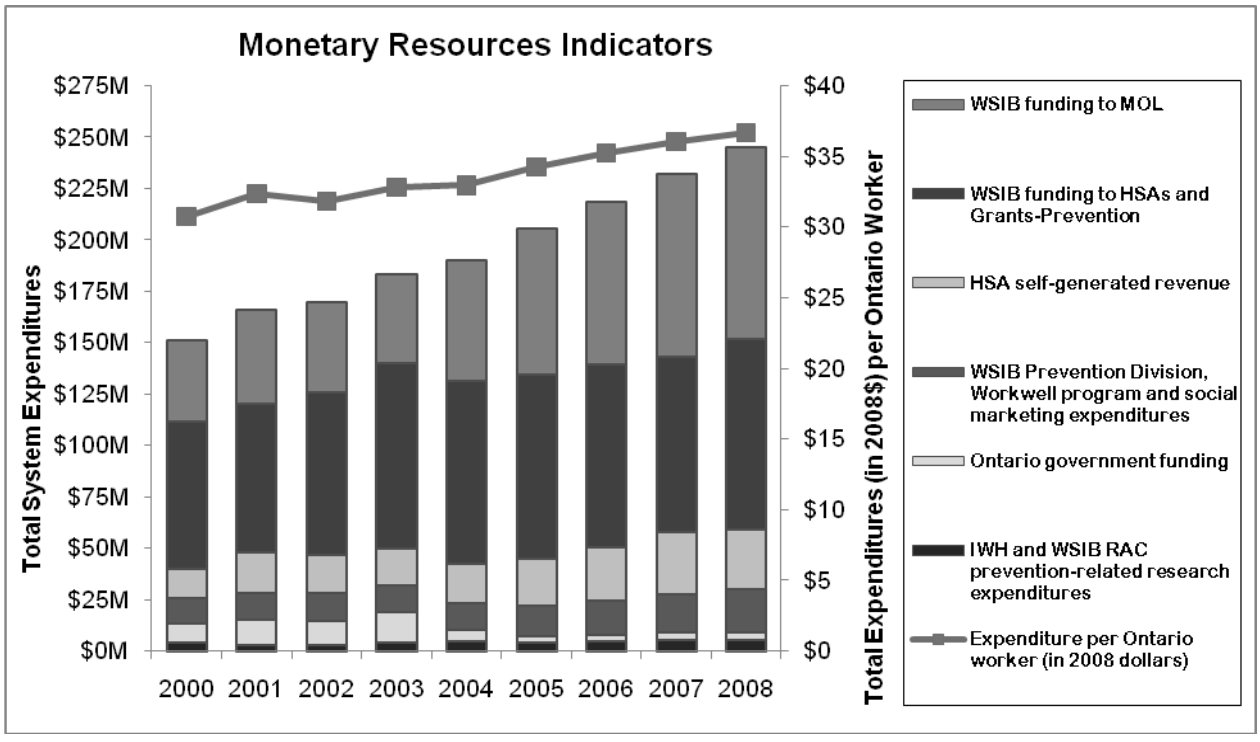
Monetary Resources = the total monetary resources put into the System.
Monetary Resources indicators monitor the success of the system in securing monetary resources from the external environment (government, employers, etc.) for the purposes of prevention activities.

Indicator results

The total resources allocated to the Ontario Prevention System were $245 M in 2008. The total system expenditures on prevention per Ontario worker (in 2008 dollars) has gradually increased over 2000-2008 at a rate of 2.2% per year (in constant dollars) to the current $37 per worker.

The majority of the resources arose from insurance premium revenues paid by Ontario employers. These were directed toward prevention through the WSIB programs (e.g. Workwell, social marketing, Prevention Division) or through transfers to other organizations. Other sources of resources were paying clients of the Health and Safety Associations ($29 M), the Ontario government ($3.7 M) and research granting agencies other than WSIB Research Advisory Council.

Over 2000-8, the expenditure categories with the greatest growth have been the transfer from WSIB to the Ministry of Labour (11%) and the revenue generated by HSAs from clients (9.7%). The only category in decline has been expenditures by the Ontario government.



Monetary Resources Indicators[6]	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change 2006-8[7]	Average change 2000-8[8]
WSIB Prevention Division, Workwell program and social marketing expenditures[9]	$12.6M	$13.0M	$13.6M	$12.9M	$13.0M	$15.0M	$16.7M	$18.5M	$21.1M	14.1%	6.7%
WSIB funding to MOL[10]	$40.0M	$46.0M	$44.0M	$43.0M	$59.0M	$71.0M	$79.0M	$89.0M	$93.1M	4.6%	11.1%
WSIB funding to HSAs and Grants-Prevention	$73.6M	$72.7M	$79.2M	$90.5M	$88.9M	$89.3M	$89.0M	$85.1M	$92.8M	9.0%	3.3%
IWH and WSIB RAC prevention-related research expenditures[11]	$4.4M	$3.3M	$3.1M	$4.5M	$5.1M	$4.2M	$5.2M	$5.6M	$5.4M	-3.9%	2.6%
Ontario government funding[12]	$9.1M	$12.0M	$11.4M	$14.6M	$5.4M	$3.1M	$2.9M	$3.4M	$3.7M	8.8%	-10.6%
HSA self-generated revenue[13]	$14.0M	$19.9M	$18.7M	$17.8M	$19.1M	$22.9M	$26.0M	$30.6M	$29.3M	-4.2%	9.7%
TOTAL System expenditures on prevention[14]	$153.7M	$166.9M	$170.0M	$183.3M	$190.5M	$205.5M	$218.7M	$232.2M	$245.4M	5.7%	6.2%
Total System expenditures on prevention per Ontario worker[15]	$26	$28	$28	$30	$30	$32	$34	$35	$37	4.2%	4.6%
Total System expenditures on prevention per Ontario worker (in 2008 dollars)[16]	**$31**	**$32**	**$32**	**$33**	**$33**	**$34**	**$35**	**$36**	**$37**	**1.8%**	**2.2%**

[6] Additional details about sources of indicator data are in Appendix B.
[7] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2008.
[8] Average year-to-year percentage change. See Appendix B for formula used.
[9] Total WSIB expenditures on Prevention Division activities, Workwell program and social marketing activities.
[10] Reimbursement by WSIB to MOL for the costs associated with the Occupational Health and Safety Act.
[11] Custom tabulation by IWH.
[12] Ontario government expenditures on the Occupational Health and Safety Branch of the Ministry of Labour.
[13] Revenue generated by HSAs through conferences, purchases of educational materials, etc.
[14] Total of the preceding five expenditures.
[15] Total System expenditures targeting prevention divided by the number of all workers in Ontario.
[16] Total System expenditures targeting prevention per Ontario worker, expressed in 2008 dollars. The boldface indicates that it is a key performance indicator (see Introduction).

2. Legislation & Regulations (Input)

Concept description and rationale

Legislation & Regulations = the legislation and regulations with respect to the goals of no workplace injuries and illnesses.

The activities of Prevention System members and workplace parties are dictated and constrained by various pieces of legislation (e.g., Workplace Safety Insurance Act, Occupational Health and Safety Act, etc.). For workplaces that aim only for compliance, it is the legislation that sets the minimum standard. The Prevention System has some influence over Legislation & Regulations.

Indicator results

No quantitative indicators are currently available. A qualitative summary of changes is provided. Several legislative and regulatory changes took place in 2008.

Year	Significant changes regarding Legislation & Regulations[17]
2008	• O. Reg. 248/08 Control of Exposure to Biological or Chemical Agents made under the OHSA (amending regulation 833), adopts limits/findings from 2007, comes in effect Jul 15, 2008 • O. Reg 317/08 made under OHSA, amends O. Reg. 474/07 Needle Safety, extending coverage to long-term care homes, all psychiatric facilities, some charitable organizations, labatories and specimen collection centres (effective April 1, 2009). • French versions of regulations filed (May 20, 2008) for three designated substances: silica (O. Reg. 155/08), benzene (O. Reg. 154/08), acrylonitrile (O. Reg. 153/08) • Workplace Safety and Insurance Amendment Act, 2008 (Bill 119) received Royal Assent, extending mandatory Workplace Safety and Insurance Board (WSIB) coverage to independent operators, partners in partnerships, and executive officers in the construction industry. The intention of the government is to have the amendments come fully into force in 2012. • O. Reg. 35/08: Return to Work and Re-employment – Construction Industry made under the WSIA, in effect Sep 1, 2008 • O. Reg. 441/08 made under the Technical Standards and Safety Act, 2000, amends O. Reg. 215/01 Fuel Industry Certificates, in effect Dec 31, 2008 • Regulatory Modernization Act, 2007, in effect Jan 17, 2008, allows sharing of information among Ontario ministries • Bill 41, Highway Traffic Amendment Act (Speed-limiting Systems), enacted, imposing a new requirement that commercial motor vehicles driven on a highway have a speed-limiting system. A regulatory amendment (O. Reg. 396/08) pertaining to speed-limiting systems was made too. • Cosmetic Pesticides Ban Act (Bill 64) given royal assent prohibiting the use and sale of pesticides that may be used for cosmetic purposes • Canada Occupational Health and Safety Regulations amended, removing maximum level of lighting for air traffic controllers, in effect Sep 5, 2008 (SOR/2008-276) • Canada Occupational Health and Safety Regulations amended to include Part XX, Violence Prevention in the Workplace, in effect May 8, 2008 (SOR/2008-148) • Transportation of Dangerous Goods Regulations (federal) amended to improve safety, in effect February 20, 2008

[17] In 2004-8 OHSCO members were asked by survey to report on "notable changes in legislation or regulations in [the previous year] (i.e., changes likely to make a difference in terms of worker illnesses, injuries or fatalities in Ontario or your sector)". Responses are compiled and presented here when the respondent information is sufficiently detailed to allow verification. Information on 2000-2003 was provided by a single MOL contact. Both changes favourable and unfavourable for OHS are tracked.

	• Hazardous Materials Information Review Act Appeal Board Procedures Regulations (federal) amended, in effect Sep 5, 2008
2007	• OHSA regulations concerned with lowering exposure to noise came into effect (O. Reg 565/06 and 566/06) • OELs introduced for coumaphos and monochloroacetic acid; OELs revised for several other substances (O.Reg. 83/07) • Highway Traffic Act regulation (O. Reg. 555/06) came into effect, helping to ensure that commercial vehicle operators have sufficient rest • Highway Traffic Act regulation (O. Reg. 199/07) came into effect, updating daily inspection requirements for commercial vehicles to a national standard • OHSA mining regulations modified (O.Reg. 84/07) to extend coverage of training requirements to first line supervisors; changes also pertain to brakes, elevators and explosives • Private Security and Investigative Services Act, 2005 came into effect, which requires security guards to be licensed, thereby increasing professionalism of the field (improving safety for the guards and those in the workplaces they guard) • Needle Safety Regulation (O. Reg. 474/07) under OHSA filed Aug 2007, requiring the provision and use of safety-engineered needles in hospitals (to take effect Sep 2008)
2006	• New and revised confined space regulations under the Occupational Health and Safety Act (OHSA), affecting all sectors except farming, came into effect (O. Regs 628/05, 629/05, 630/05, 631/05, 632/05) • New regulation came into effect that extended OHSA coverage to the farming sector, with some limitations (O. Reg 414/05) • Smoke Free Ontario Act took effect, prohibiting smoking in all enclosed workplaces • Ontario Human Rights Code amendment came into effect, ending mandatory retirement
2005	• New regulation Designated Substance — Asbestos on Construction Projects and in Buildings and Repair Operations (O. Reg. 278/05) under the Occupational Health and Safety Act (OHSA) updated safe work measures and procedures and enhanced respiratory protection (takes effect 2007) • Regulations for Construction Projects (O. Reg. 213/91) under OHSA amended regarding electrical safety and hoisting of multi-tiered loads • OELs introduced or revised for 23 substances
2004	• New system introduced at MOL for annually reviewing the OELs; resulted in the introduction or revision of OELs for 79 substances • OELs also revised for manganese, benzene, 1,3-butadiene and carbon monoxide • Updated mining regulations, including provisions for blasting and for having engineering reviews of excavations without ground support, which address recommendations of two coroner's jury inquests • Bill C-45, an Act to amend the federal Criminal Code, came into effect. It imposes criminal liability on corporations and organizations that fail to take reasonable measures to protect employee safety.
2003	No significant changes noted
2002	No significant changes noted

2001	• Updated legal requirements for:
	  ○ firefighter protective equipment
	  ○ logging industry training
	  ○ surface mine worker training
	  ○ construction industry fall protection

2000	Updated occupational exposure limits (OELs) for 202 substances

3. System Alignment (Activity)

Concept description and rationale

System Alignment = the alignment of the goals, activities and metrics within and between OHSCO member organizations.

System alignment was one of the three main themes of OHSCO's strategy for 2002-7.[18] In addition, it is considered by some to be a basic dimension of the performance of a system.

Indicator results

There are two approaches to monitoring System Alignment, one qualitative and the other quantitative.

Qualitative indicator

A list of notable changes within the System, indicative of its alignment, are summarized in the following table.

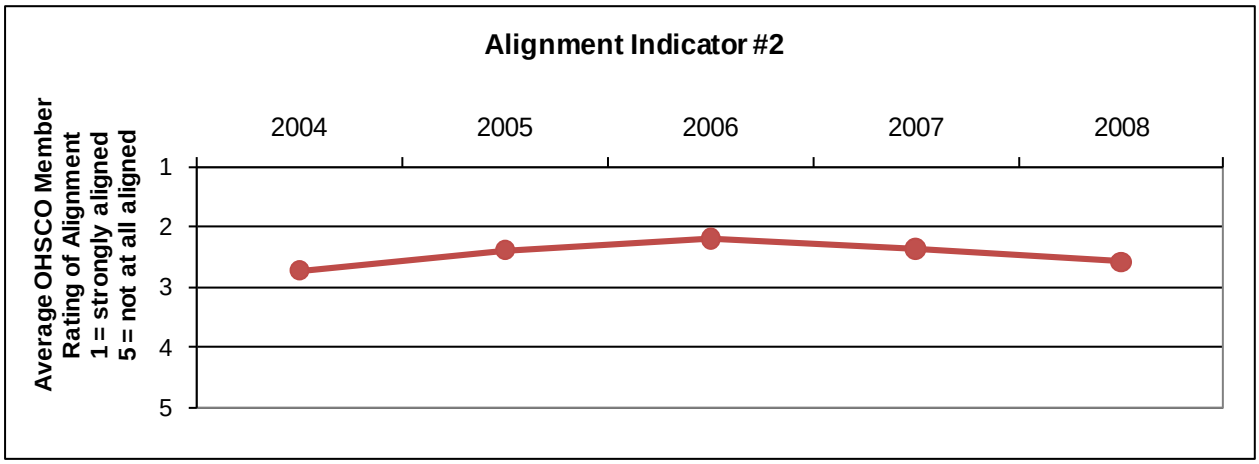
Year	Significant changes regarding System Alignment[19]
2000	• Alignment issues identified
2001	• Working groups formed to address alignment issues
2002	• Drafted new Prevention System strategy for 2002-7
2003	• Published OHSCO's first Annual Report • Undertook strategic review, planning for 2004-7
2004	None noted.
2005	• OHSCO committed to five joint strategic initiatives o High Risk/Last Chance o Occupational Disease o Workplace Musculoskeletal Disorders/Ergonomics o Emergency Preparedness o System Evaluation and Planning, including Leading Indicators
2006	None noted
2007	None noted
2008	• Integrated reporting on Prevention System by WSIB Intelligence & Innovation Branch: Health & Safety System - Target & Performance Dashboard • Decision taken to amalgamate 12 health and safety associations into four

[18] Ministry of Labour. Preventing Workplace Injury and Illness: 2002 to 2007. Draft report. February 22, 2002.
[19] Content for table has been generated each year by the authors of the report in communication with the OHSCO body that oversees the report.

Quantitative indicators

There were two quantitative indicators of alignment[20] based on responses in the annual survey of OHSCO member organizations. The first shows that OHSCO members continue to perceive the alignment in the most recent year to be greater than that in the previous one (see table). However, the second indicator's trend for 2006-8 represents a slight reversal from the 2004-6 trend, indicating a change in perceptions toward *less* alignment (see table and figure). This change in the average is attributable to a continuing drop in the percentage of respondents choosing the "strongly aligned" response. The second indicator nevertheless shows that members on average perceived the OHSCO organizations to be somewhere between "somewhat aligned" and "quite strongly aligned" in 2008 as in previous years.

Alignment Indicators	2004	2005	2006	2007	2008	Interpretation
1. Average OHSCO member rating of alignment in reference year versus previous year[21]	2.0	1.7	1.8	1.9	1.9	Respondents continue to perceive OHSCO organizations to be more aligned in the reference year than the year previous.
2. Average OHSCO member rating of alignment within the Prevention System for reference year [22]	**2.7**	**2.4**	**2.2**	**2.4**	**2.6**	**Average rating continues to be between "somewhat aligned" and "quite strongly aligned." However, the trend in 2006-8 is a slight reversal from the 2004-6 trend, indicating a drop in the perception of alignment.**



[20] Alignment was defined as "the alignment of the goals, activities and metrics within and between OHSCO member organizations,"

[21] The question was, "How does the alignment of the System in 2008 compare with that in 2007?" The respondent was asked to select one response on the following scale: 1=much more aligned, 2=somewhat more aligned, 3=no change, 4=somewhat less aligned, 5=much less aligned.

[22] The question was, "Which best describes your perception of alignment within the Prevention System in 2008?" The respondent was asked to select one response on the following scale: 1=strongly aligned, 2=quite strongly aligned, 3=somewhat aligned, 4=slightly aligned, 5=not at all aligned.

The boldface indicates that it is a key performance indicator (see Introduction).

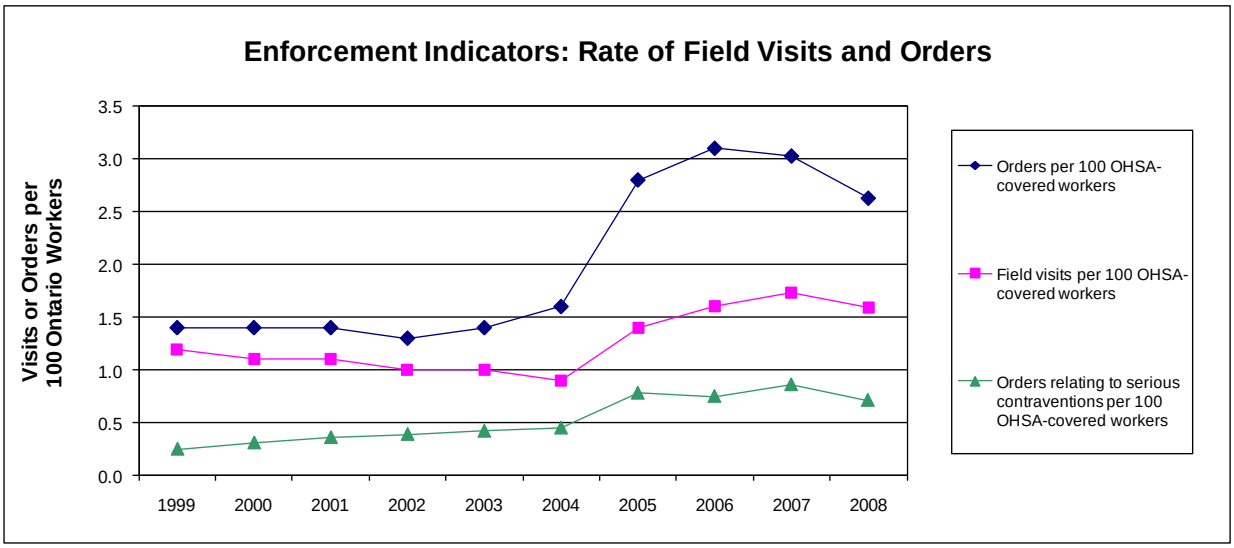
4. Enforcement (Activity)

Concept description and rationale

Enforcement = the degree and quality of enforcement of OHS legislation. Enforcement is a major function of the MOL in the Prevention system. It is assumed that greater and better quality enforcement will improve outcomes.

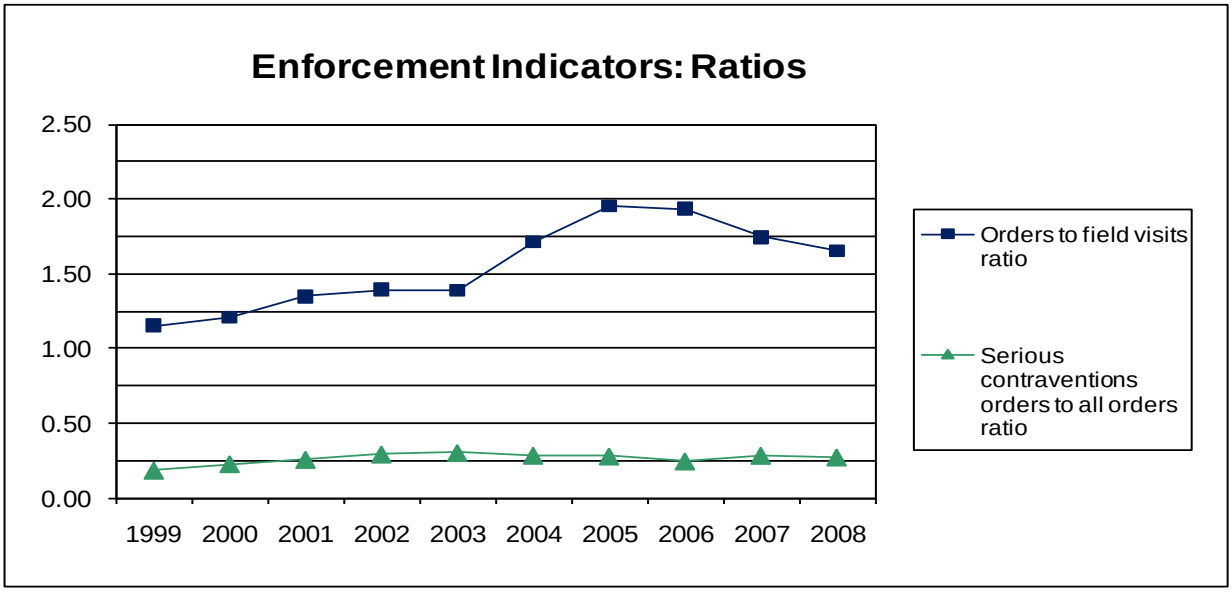
Indicator results

The rate of field visits in 2008 (1.6 per OHSA-covered worker) and the rate of orders (2.6 per OHSA-covered worker) continues the period of elevation of these indicators that began in 2005. This elevation is attributable to the allocation of additional resources to the MOL's Occupational Health and Safety Branch for the recruitment of 200 additional inspectors. However, in 2008, these two indicators showed a decline since 2007 of 8% and 13%, respectively.

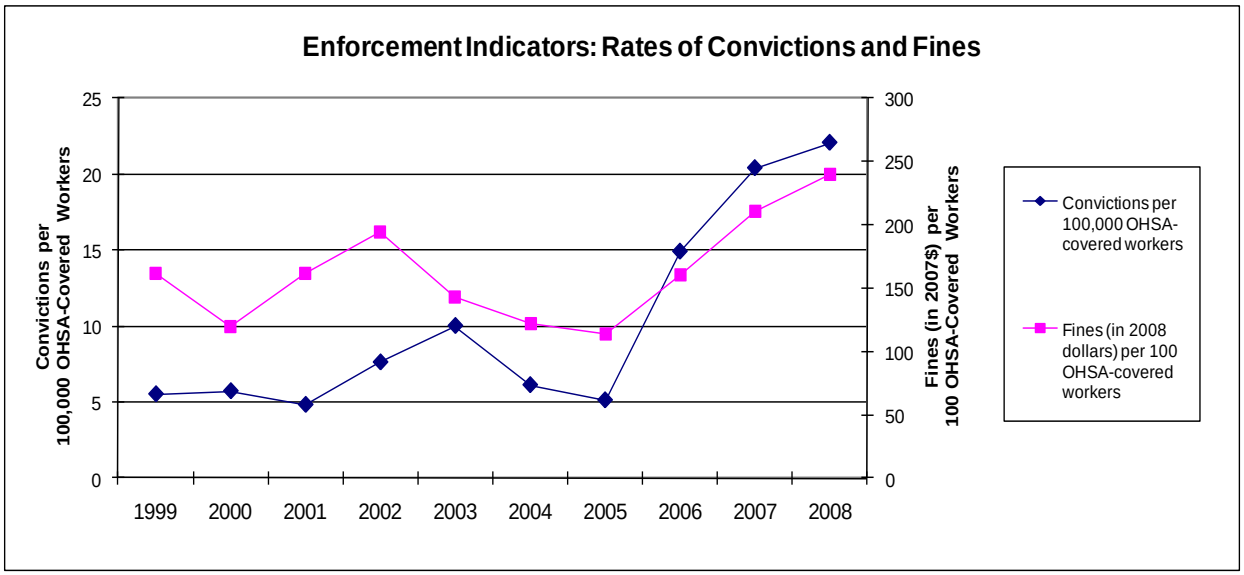


Two ratio indicators are presented below. The order to field visit ratio is included because research indicates inspections with orders are more effective than inspections alone.[23] The ratio increased from 1.15 in 1999, peaked at 1.95 in 2005, and then decreased to 1.65 in 2008. The second ratio indicator, the serious contravention orders to all orders ratio, was 0.27 in 2008, which is similar to the preceding period of time.

[23] Tompa E, Trevithick S, McLeod C (2007) Systematic review of the prevention incentives of insurance and regulatory mechanisms for occupational health and safety. Scand J Work Environ Health 33(2):85-95.



The convictions and fines per OHSA-covered worker indicators fluctuate substantially from year to year. Nevertheless, the number of convictions per 100,000 OHSA-covered workers seen in 2006-8 is substantially higher than the earlier period of observation. Similarly, fines per 100 OHSA-covered workers in 2007-8 is higher than the preceding period.



Enforcement Indicators[24]	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change 2007-8[25]	Average change over time period[26]
Field visits[27]	60,784	58,656	55,728	52,093	56,102	52,673	81,411	90,729	101,275	93,819	-7%	5%
Orders[28]	69,940	70,843	75,167	72,522	77,774	90,141	158,950	175,334	176,669	155,057	-12%	9%
Orders relating to serious contraventions[29]	12,642	15,970	19,156	21,098	23,453	25,507	44,135	42,766	49,924	42,047	-16%	14%
Convictions	309	333	287	459	618	386	326	856	1,191	1,303	9%	17%
Fines	$6.5M	$5.2M	$7.3M	$9.2M	$7.1M	$6.3M	$6.1M	$8.8M	$12.0M	$14.1M	18%	9%
Field visits per 100 OHSA-covered workers[30]	1.2	1.1	1.1	1.0	1.0	0.9	1.4	1.6	1.7	1.6	-8%	3%
Orders per 100 OHSA-covered workers[31]	**1.4**	**1.4**	**1.4**	**1.3**	**1.4**	**1.6**	**2.8**	**3.1**	**3.0**	**2.6**	**-13%**	**7%**
Orders relating to serious contraventions per 100 OHSA-covered workers	0.25	0.31	0.36	0.39	0.42	0.45	0.78	0.75	0.86	0.71	-17%	12%
Convictions per 100,000 OHSA-covered workers	5.5	5.7	4.8	7.6	10.0	6.1	5.1	14.9	20.4	22.1	8%	17%
Fines (in 2008 dollars) per 100 OHSA-covered workers[32]	$157	$118	$158	$191	$139	$120	$112	$157	$206	$239	14%	4%
Orders/field visit ratio	**1.15**	**1.21**	**1.35**	**1.39**	**1.39**	**1.71**	**1.95**	**1.93**	**1.74**	**1.65**	**-5%**	**4%**
Serious contravention orders to all orders ratio	0.18	0.23	0.25	0.29	0.30	0.28	0.28	0.24	0.28	0.27	-4%	5%

[24] Additional details about sources of indicator data are in Appendix B.
[25] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.
[26] Average year-to-year percentage change over the time period where data available. See Appendix B for formula used.
[27] Field visits refer to visits by an MOL inspector for the purpose of enforcing the OHSA and the Trades Qualification and Apprenticeship Act; visits may be for the purpose of inspection, investigation or consultation.
[28] Orders (issued by MOL inspectors) document contraventions of legislation or regulations by workplaces and demand remediation.
[29] Serious contraventions are contraventions that often lead to deaths and severe injuries. Classification of contraventions is carried out by MOL staff.
[30] Number of OHSA-covered workers based on Statistics Canada Labour Force Survey (see Appendix B).
[31] The boldface indicates that it is a key performance indicator (see Introduction).
[32] Adjusted to 2008 dollars using the Consumer Price Index.

5. Knowledge/Skill Transfer (Activity)

Concept description and rationale

Knowledge/Skill Transfer = the quantity and quality of knowledge and skills transfer to workplace parties.

Knowledge/Skills Transfer can take place through training/education, consulting, or website visitation. It is conducted to some extent by all Prevention System organizations and is a major function of the health and safety associations. It is assumed that greater and better quality knowledge/skills transfer will improve system outcomes.

Indicator results

Knowledge/Skill transfer indicator data were collected by surveying OHSCO members.

The key performance indicators of knowledge/skill transfer are based on joint health and safety committee certification training, because of the role certification plays in the System and because of the relatively high quality of the data. **Certification training** was provided in 2008 at the following rates:

- 0.94 participant-days per 100 workers (Part One)
- 0.60 participant-days per 100 workers (Part Two)

These represent sizeable increases from the previous year, 27% and 52% respectively. The increase in both cases is mainly attributable to a small minority of organizations.

The transfer of knowledge/skill through **all types of training and conferences** is estimated to be 4.1 participant-days per 100 Ontario workers, similar to that of the previous two years.

Additional knowledge/skill transfer activity in 2008 included the following:

- 4.9 participant units of **training materials** per 100 workers
- 2.8 OHS **consulting & advisory hours** per 100 workers
- 200 **Web page views** per 100 workers
- 77 **Web downloads** per 100 workers
- 59 **Web visits** per 100 workers

There has been a steadily increasing trend over the past several years for the first two of these indicators. For the Web-based indicators, trends are hard to discern because of the very poor quality of the data.

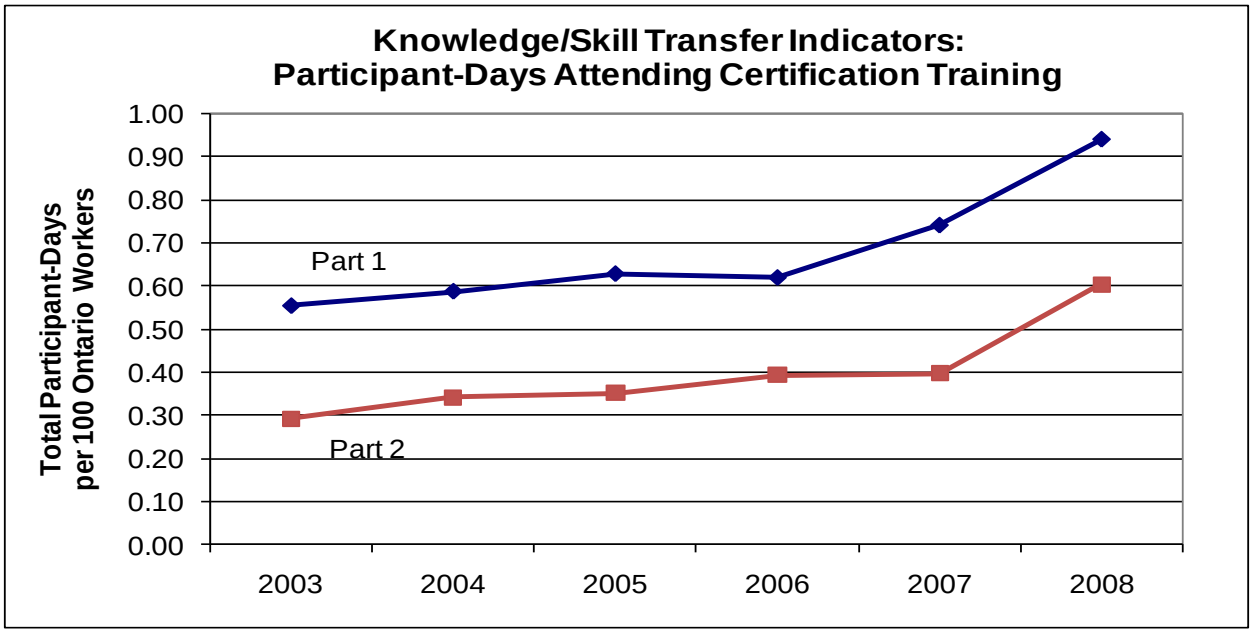
Twenty-one per cent of the consulting and advising hours in 2008 were part of the Last Chance initiative targeting low performing organizations.

Knowledge/Skill Transfer Indicators (Counts)	2003	2004	2005	2006	2007	2008	Change 2007-8[33]	Avg change over time period[34]	*Data quality 2008*[35]
Training and Conferences									
Certification training - Pt 1 - ppt-days[36]	34,349	37,017	40,213	40,223	48,889	62,978	29%	13%	*High*
Certification training - Pt 2 - ppt-days	18,111	21,489	22,491	25,575	26,198	40,441	54%	17%	*High*
Train-the-trainer sessions - ppt-days	*[37]	*	*	4,458	4,322	3,889	-10%	-7%	*High*
All other training[38] - ppt-days	*	*	*	121,216	121,217	98,061	-19%	-10%	*High*
Awareness sessions[39] - ppt-days	*	*	*	38,970	49,365	43,590			*Low*
Other training/awareness sessions - ppt-days	*	*	*	6,008	7,362	2,302			*Low*
Conferences as primary sponsor - ppt-days	*	*	*	17,569	21,644	19,872	-8%	6%	*High*
Sessions in non-OHSCO conferences - ppt-days	*	*	*	13,278	7,680	5,084			*Low*
Total participant-days System training and conferences	219,718	222,798	247,815	267,296	286,675	274,237			*Low*
Training materials									
Participant-units of training materials provided[40]	107,925	89,873	171,413	212,926	282,380	326,859			*Low*
Consulting									
OHS consulting & advisory hours[41] – total	*	*	119,212	128,455	163,057	183,117			*Low*
OHS consulting & advisory hours -- Last Chance firms only[42]	*	*	9,143	17,554	41,526	37,974			*Low*
Website									
Page views[43] from System OHS websites	12.4M	17.5M	16.1M	23.9M	14.9M	13.4M			*Low*
Downloads from System OHS websites	*	*	*	10.8M	6.3M	5.1M			*Low*
Visits[44] to System OHS websites	1.5M	6.2M	4.3M	5.0M	3.4M	4.0M			*Low*

[33] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007. It was calculated where data were of at least Medium quality in 2007 and 2008.
[34] Average year-to-year percentage change; calculated when the data involved were of at least Medium quality over the entire time period. See Appendix B for formula used.
[35] See Appendix E for explanation of data quality. High means that data were unavailable from no more than one organization and that 90% of the organizations submitting data rated its precision as +/- 5%.
[36] Participant-day is the equivalent of one day of training for one participant; e.g., a half day course with 20 participants = 10 participant-days.
[37] * means data not collected.
[38] Refers to all other training where there is an evaluation component, either formal (i.e. testing) or informal (i.e. observation and feedback).
[39] Educational sessions with no evaluation component.
[40] Training materials distributed to workplace parties but no confirmation that training delivery or achievement took place. A training package with 10 participant guides would count as 10 participant-units.
[41] Includes direct and associated indirect time (e.g., meetings, report writing) spent by consulting staff.
[42] Last Chance initiative, implemented 2005-8, was directed at low performing organizations.
[43] Page view is a hit to any file classified as a page
[44] Visit is a series of actions that begins when a visitor views their first page from the server, and ends when the visitor leaves the site or the idle-time limit is reached.

Knowledge/Skills Transfer Indicators (Rates)	2003	2004	2005	2006	2007	2008	Change 2007-8[45]	Avg change over time period[46]	*Data quality 2008*[47]
Training									
Participant-days[48] in certification training Pt 1 per 100 Ontario workers	**0.55**	**0.59**	**0.63**	**0.62**	**0.74**	**0.94**	**27%**	**11%**	***High***
Participant-days in certification training Pt 2 per 100 Ontario workers	**0.29**	**0.34**	**0.35**	**0.39**	**0.40**	**0.60**	**52%**	**16%**	***High***
Participant-days System training and conferences per 100 Ontario workers	3.5	3.5	3.9	4.1	4.2	4.1			*Low*
Training materials									
Participant units of training materials[49] provided per 100 Ontario workers	1.7	1.4	2.7	3.3	4.3	4.9			*Low*
Consulting									
OHS consulting & advisory hours per 100 Ontario workers[50]	*[51]	*	1.9	2.0	2.5	2.8			*Low*
OHS consulting & advisory hours, Last Chance firms, per 100 Ontario workers[52]	*	*	0.1	0.3	0.6	0.6			*Low*
Website									
Page views[53] from System OHS websites per 100 Ontario workers	199	277	252	368	226	200			*Low*
Downloads from System OHS websites per 100 Ontario workers	*	*	*	167	96	77			*Low*
"Visits" to System OHS websites per 100 Ontario workers[54]	24	98	68	77	52	59			*Low*

[45] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007. It was calculated where numerator data were of at least Medium quality in 2007 and 2008.
[46] Average year-to-year percentage change. It was calculated when the numerator data involved were of at least Medium quality over the entire time period. See Appendix B for formula used.
[47] Data quality determined by the quality of the count data. See Appendix D for explanation of data quality.
[48] Participant-day is the equivalent of one day of training for one participant; e.g., a half day course with 20 participants = 10 participant-days.
[49] Training materials distributed to workplace parties but no confirmation that training delivery or achievement took place. A training package with 10 participant guides would count as 10 participant-units.
[50] Includes direct and associated indirect time (e.g., meetings, report writing) spent by consulting staff.
[51] * means data not collected.
[52] Last Chance initiative, implemented 2005-8, was directed at low performing organizations.
[53] Page view is a hit to any file classified as a page
[54] Visit is a series of actions that begins when a visitor views their first page from the server, and ends when the visitor leaves the site or the idle-time limit is reached.


Knowledge/Skill Transfer Indicators:
Participant-Days Attending Certification Training
Total Participant-Days per 100 Ontario Workers
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Part 1
Part 2
2003
2004
2005
2006
2007
2008

6. Satisfaction (Reaction)

Concept description and rationale

Satisfaction = the opinion of workers and management (and their representatives) regarding their satisfaction with the Prevention System.

Managers and workers are key stakeholder groups of the Prevention System. Their satisfaction indicates how well their interests are being served by OHSCO partners (and relevant legislation). It is assumed that workplaces parties' level of satisfaction will predict the likelihood of them seeking assistance from System partners again.

Indicator results

There is no measure of Satisfaction available for the System as a whole. One can refer to individual OHSCO members for their organization-specific satisfaction indicators.

7. OHS Values, Beliefs and Attitudes (Reaction)

Concept description and rationale

OHS Values, Beliefs and Attitudes = management and workers' OHS values, beliefs and attitudes.

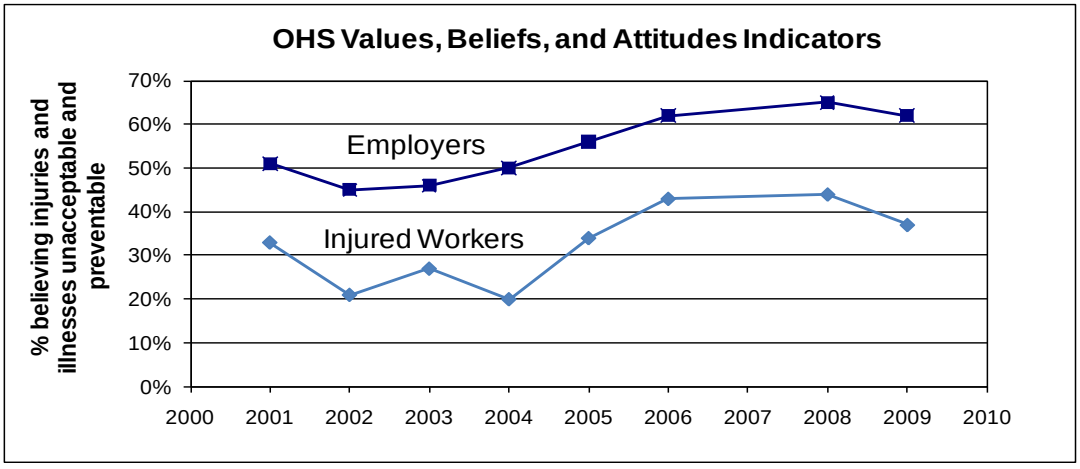
Values, beliefs and attitudes of managers and workers influence their OHS-related behaviours. This group of concepts is intended to encompass organizational culture and in part management commitment. The importance of these concepts is supported by research. Further, management commitment was also identified as the most important leading indicator in the Occupational Health and Safety Performance Measures Workshop, held in 2003 and sponsored by the MOL, BCOHS, IAPA and WSIB. Commitment was one of the Prevention System's strategic themes for 2002-7.

Indicator results

No measure based on all Ontario managers or workers is available. Annual WSIB Customer Satisfaction Survey results[55] have been used instead. The employers surveyed are those registered with the WSIB. The workers surveyed are those with an allowed lost-time claim. The favourable trends seen during 2001-6 have leveled off over 2008-9.

OHS Values, Beliefs, and Attitudes Indicators[56]	2001	2002	2003	2004	2005	2006	2007	2008	2009
% of employers believing "injuries and illnesses are unacceptable and preventable"	51%	45%	46%	50%	56%	62%	*	65%	62%
% of injured workers believing "injuries and illnesses are unacceptable and preventable"	33%	21%	27%	20%	34%	43%	*	44%	37%

* Survey not conducted in 2007



[55] The question was ""Which of the following two statements is closest to your point of view?" The possible responses were "workplace injuries and illnesses are, unfortunately, an inevitable outcome of certain types of jobs" and "workplace injuries and illnesses are unacceptable and preventable.

[56] Additional details about sources of indicator data are in Appendix B.

8. Knowledge/Skill (Reaction)

Concept description and rationale

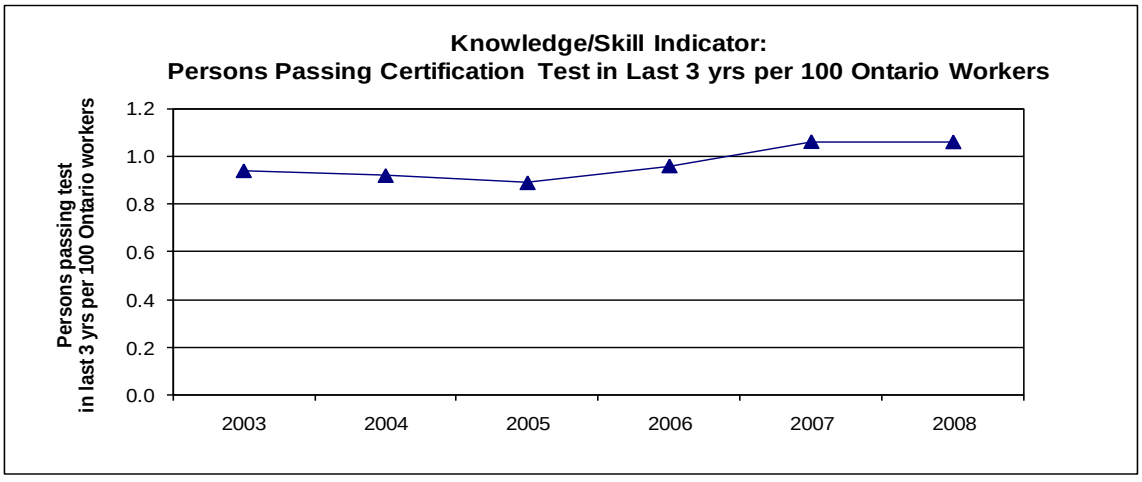
Knowledge/Skill = the knowledge and skills workers and managers possess for maintaining (and improving) health and safety in the workplace.

Increasing knowledge in the workplace was one of OHSCO's strategic objectives in the 2002-7 plan. Managers and workers need the knowledge/skills necessary to maintain or improve health and safety in the workplace.

Indicator results

The report tracks indicators based on the number of people successfully completing Part One Certification testing. The key performance indicator, "persons passing Part One Certification test in last three years per 100 Ontario workers" remained the same in 2008 as in the previous year.

Knowledge/Skill Indicators[57]	2001	2002	2003	2004	2005	2006	2007	2008	Change 2007-8[58]	Avg. change over time period[59]
Persons passing Part One certification test	18,600	21,990	17,532	18,735	20,948	22,706	26,335	21,900	-17%	2%
Persons passing Part One certification test in last three years	*[60]	*	58,122	58,257	57,215	62,389	69,989	70,941	1%	4%
Persons passing Part One certification test in last three years per 100 Ontario workers[61]	*	*	**0.94**	**0.92**	**0.89**	**0.96**	**1.06**	**1.06**	**0%**	**2%**



[57] Additional details about sources of indicator data are in Appendix B.
[58] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.
[59] Average year-to-year percentage change over time period when data available. See Appendix B for formula used.
[60] * Indicators not computed for 2001 and 2002, since they incorporated data from 1999 and 2000, when the administrative function for collecting these data was still being put in place.
[61] Number of workers is based on Statistics Canada Labour Force Survey.

9. Hazardous Exposures (Reaction)

Concept description and rationale

Hazardous exposures = physical and psychosocial exposures of workers to workplace hazards, especially those that influence the occurrence of workplace injuries, illnesses and fatalities.

Exposure measures are the leading indicators most proximal to measures of final outcomes (illnesses, injuries, fatalities, disabilities, costs). Exposures leading to occupational disease are especially important because of the sometimes large lag time between exposure and disease.

Information on hazardous exposures in Ontario is very limited, however exposure to travel in a motor vehicle is available from the annual Canadian Vehicle Survey conducted by Statistics Canada. Two categories of vehicles are distinguished: < 4.5 tonnes and ≥ 4.5 tonnes. Those in the first category are comprised mainly of cars, sports utility vehicles and pickup trucks; and those in the second category are comprised mostly of straight trucks and tractor trailers.[62]

Over the period 2004-8, exposure to travel in a motor vehicle < 4.5 tonnes for purposes of work decreased annually by 2% on a per worker basis, whereas exposure to travel in a motor vehicle ≥ 4.5 tonnes increased annually by 2%. Exposure on a per worker basis in all sizes of vehicles remained decreased annually by 1%.

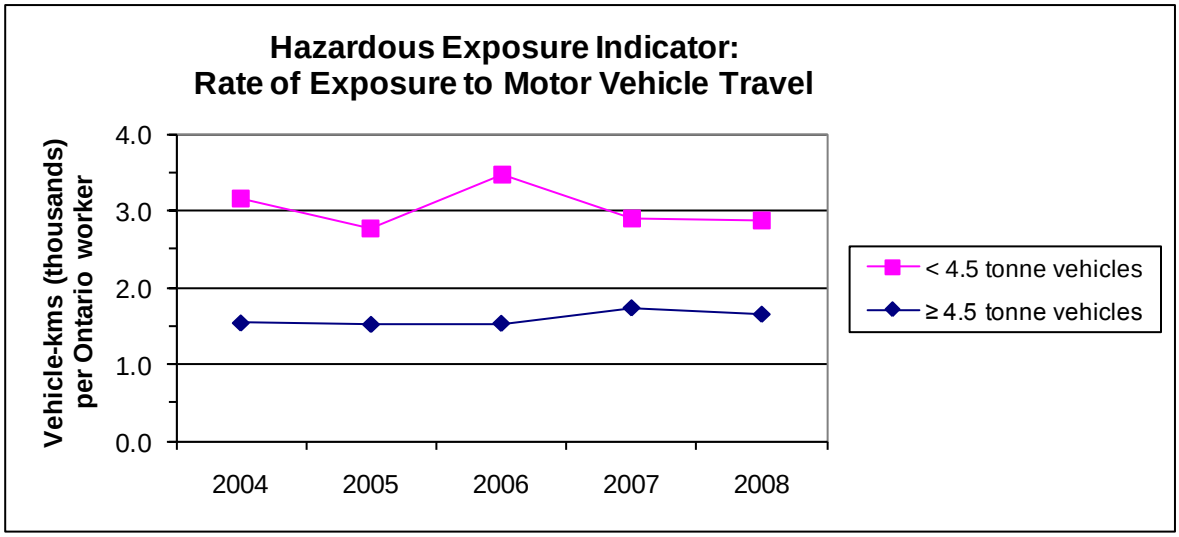
Hazardous Exposure Indicators[63]	2004	2005	2006	2007	2008	Change 2007-8[64]	Average change 2004-8[65]
Vehicle-kms (billions) in < 4.5 tonne vehicles	19.9	17.8	22.5	19.1	19.2	1%	-1%
Vehicle-kms (billions) in ≥ 4.5 tonne vehicles	9.7	9.7	9.9	11.5	11.1	-4%	3%
Vehicle-kms (billions) total	29.5	27.5	32.4	30.5	30.2	-1%	1%
Vehicle-kms (thousands) in < 4.5 tonne vehicles per Ontario worker	3.2	2.8	3.5	2.9	2.9	-1%	-2%
Vehicle-kms (thousands) in ≥ 4.5 tonne vehicles per Ontario worker	1.5	1.5	1.5	1.7	1.7	-5%	2%
Vehicle-kms (thousands) per Ontario worker	**4.7**	**4.3**	**5.0**	**4.6**	**4.5**	**-2%**	**-1%**

[62] See Canadian Vehicle Survey Annual Report, Table 3-3. Available from: http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=53-223-X&CHROPG=1&lang=eng.

[63] Data provided by IWH. They are based on two Statistics Canada surveys: numerator data from the Canadian Vehicle Survey and denominator data from the Labour Force Survey. The values given for travel in vehicles ≥ 4.5 tonnes include some travel for non-work purposes, which results in an overestimation of 5-8% for travel in vehicles ≥ 4.5 tonnes; and of 2-3% for vehicles of all sizes. Additional details about sources of data are in Appendix B.

[64] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.

[65] Average year-to-year percentage change over time period when data available. See Appendix B for formula used.


Hazardous Exposure Indicator:
Rate of Exposure to Motor Vehicle Travel
Vehicle-kms (thousands) per Ontario worker
4.0
3.0
2.0
1.0
0.0
2004
2005
2006
2007
2008
< 4.5 tonne vehicles
≥ 4.5 tonne vehicles

10. Occupational Injuries, Illnesses, Disabilities and Fatalities (Outcome)

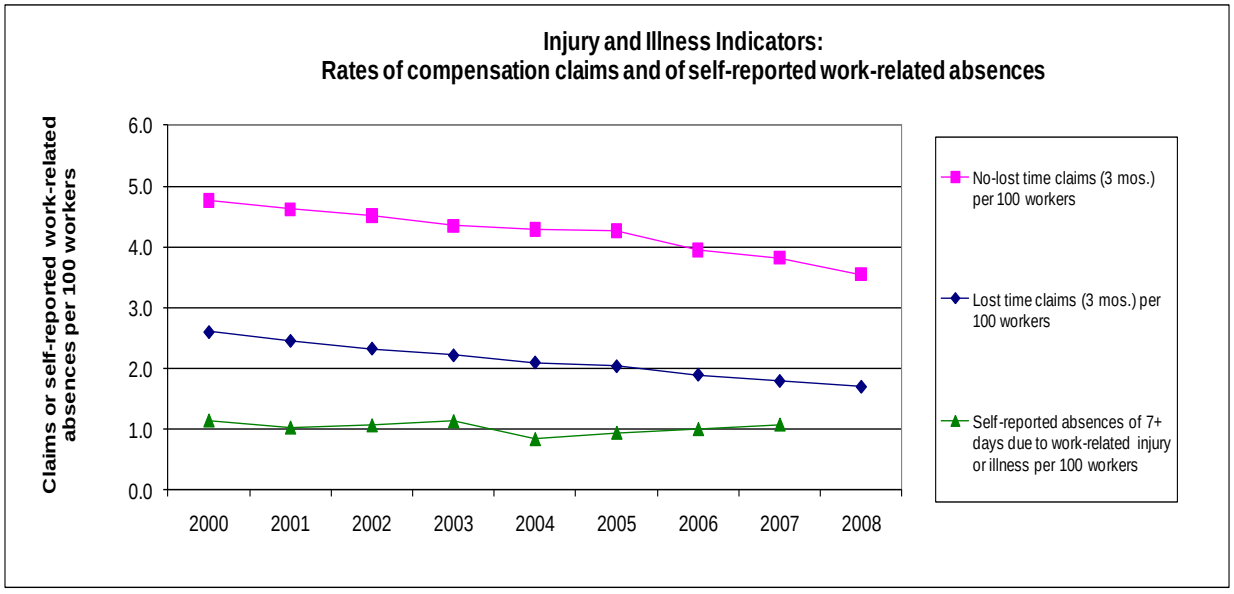
Concept description and rationale

Occupational Injuries, Illnesses, Disabilities and Fatalities = the injuries, illnesses, disabilities and fatalities, at least partly attributed to the workplace.
The ultimate goal of the prevention system is to prevent injuries, illnesses, disabilities and fatalities.

Indicator results

Injuries and illnesses
The frequency rate of lost time claims declined from 1.8 per 100 workers in 2007 to 1.7 per 100 workers in 2008. This decrease of 5.3% was similar to the annual per cent decrease over 2000-8. For no lost time injuries, the 2007-8 decrease was from 3.8 to 3.6 per 100 workers, or 7.2%, which is double the per cent decline over 2000-8.

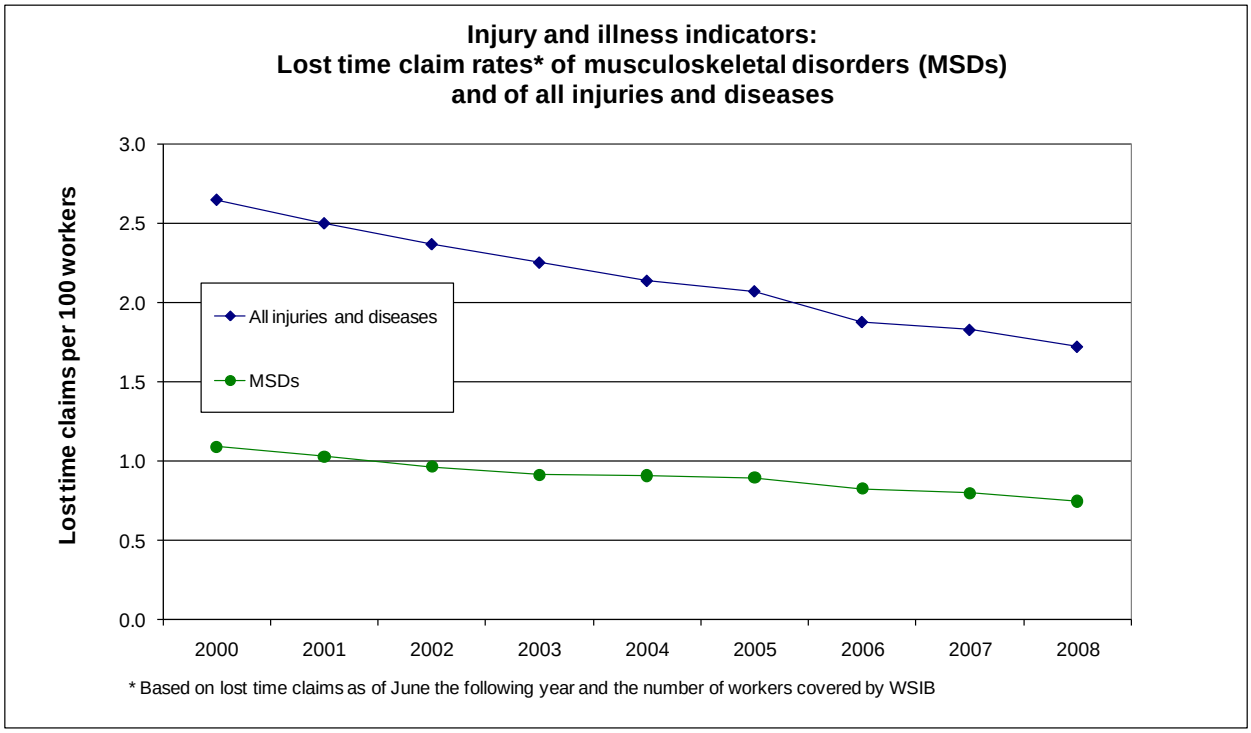
Statistics Canada survey data[66] were also used as a means of examining work-related injury and illness, independent of the claims-making process. Self-reported work absences of seven days or more due to work-related injury or illness decreased over 2000-7 by 0.8% annually.



[66] Survey of Labour and Income Dynamics

Musculoskeletal injuries

Over 2000-2008, the rate of decline of lost time claims for musculoskeletal disorders (4.6%) has been less than for all injuries and illnesses (5.2%). However, the opposite was true for 2007-8, when the decline in the rate of MSD claims (6.6%) was greater than the decline in the rate of all types of lost time claims (5.8%). As a result, MSD claims as a percentage of all claims showed a slight decline from 43.7% to 43.3% over 2007-8.



Injuries and Illnesses[67]	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change 2007-8[68]	Average change over time period[69]
No lost time claims (at 3 mos)	190,549	184,999	185,161	182,780	184,437	187,670	177,581	172,122	163,315	-5.1%	-1.9%
Lost time claims (at 3 mos)	104,154	98,359	95,568	93,234	90,397	89,734	83,179	80,863	78,256	-3.2%	-3.5%
Total claims (at 3 mos)	294,703	283,358	280,729	276,014	274,834	277,404	260,760	252,985	241,571	-4.5%	-2.5%
Self-reported absences of 7+ days due to work-related injury or illness	60,134	57,532	53,977	55,669	47,669	55,010	62,140	67,658	not avail	not avail	1.3%
MSD lost time claims at 6 mos	43,672	41,142	39,582	38,364	39,061	39,386	37,260	35,965	34,344	-4.5%	-3.0%
Lost time claims at 6 mos	105,821	99,914	97,034	94,548	91,887	91,127	84,522	82,306	79,275	-3.7%	-3.5%
No lost time claims (at 3 mos) per 100 workers	4.8	4.6	4.5	4.4	4.3	4.3	3.9	3.8	3.6	-7.2%	-3.6%
Lost time claims (at 3 mos) per 100 workers	2.6	2.5	2.3	2.2	2.1	2.0	1.9	1.8	1.7	-5.3%	-5.2%
Total claims (at 3 most) per 100 workers	**7.6**	**7.1**	**7.0**	**6.7**	**6.5**	**6.5**	**5.9**	**5.6**	**5.4**	**-4.5%**	**-4.2%**
Self-reported absences of 7+ days due to work-related causes per 100 workers[70]	1.15	1.03	1.07	1.13	0.84	0.95	1.01	1.08	not avail	not avail	-0.8%
MSD lost time claims (at 6 mos) per 100 workers	1.09	1.03	0.97	0.91	0.91	0.90	0.83	0.80	0.75	-6.6%	-4.6%
Lost time claims (at 6 mos) per 100 workers	2.6	2.5	2.4	2.3	2.1	2.1	1.9	1.8	1.7	-5.8%	-5.2%
MSD claims as % of all lost time claims	**41.3**	**41.2**	**40.8**	**40.6**	**42.5**	**43.2**	**44.1**	**43.7**	**43.3**	**-0.9%**	**0.6%**

[67] C**laims (at 3 mos.)** are allowed WSIB claims as of Mar 31 the following year. Available from: http://www.wsib.on.ca/wsib/wsibsite.nsf/public/CurrentStatistics). C**laims (at 6 mos.)** are from WSIB Enterprise Warehouse, as of June the following year (except for 1999, which is as of Oct 2000, the first available snapshot date for the Warehouse). Provided by the Intelligence & Innovation Branch, Prevention, WSIB. Coding for MSDs is not available for claims at 3 months. **Numbers of workers used to calculate claim rates** is based on the number of workers covered by WSIA. Available from: http://www.wsib.on.ca/wsib/wsibsite.nsf/public/CurrentStatistics. Additional details about all indicators are in Appendix B.

[68] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.

[69] Average year-to-year percentage change over time period when data are available. See Appendix B for formula used.

[70] Data tabulated at IWH. Numerator based on Statistics Canada Survey of Labour and Income Dynamics. Denominator includes all workers except self-employed and is based on the Statistics Canada Labour Force Survey.

Fatalities[71]	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change 2007-8[72]	Average change over time period[73]
Fatalities, occupational disease	143	166	205	202	196	259	230	279	257	-8%	7.6%
Fatalities, traumatic injuries and other immediate causes	111	108	114	122	100	84	101	100	78	-22%	-4.3%
Fatalities, traumatic injuries and other immediate causes, motor vehicle incidents	30	27	40	36	43	23	24	34	19	-44%	-5.5%
Occupational disease fatalities per 100,000 workers	2.4	2.8	3.4	3.3	3.1	4.0	3.5	4.2	3.8	-9%	5.9%
Traumatic fatalities per 100,000 workers	**1.9**	**1.8**	**1.9**	**2.0**	**1.6**	**1.3**	**1.6**	**1.5**	**1.2**	**-23%**	**-5.8%**
Traumatic fatalities, motor vehicle incidents, per 100,000 workers	0.51	0.45	0.66	0.58	0.68	0.36	0.37	0.52	0.28	-45%	-7.0%
Traumatic fatalities, motor vehicle incidents per billion vehicle-kms[74]	not avail	not avail	not avail	not avail	1.5	0.8	0.7	1.1	0.6	-44%	-18.9%
Motor vehicle incidents as % of all traumatic fatalities	27	25	35	30	43	27	24	34	24	-28%	-1.3%

[71] Unless indicated otherwise: **fatalities, occupational disease** are occupational fatality claims allowed by WSIB in the reference year; **fatalities, traumatic injuries and other immediate causes** are those reported by either WSIB and the MOL in the reference year. Available from: http://www.wsib.on.ca/wsib/wsibsite.nsf/public/CurrentStatistics. **Numbers of workers used to calculate fatality rates** are the number of Ontario workers. Additional details are in Appendix B.

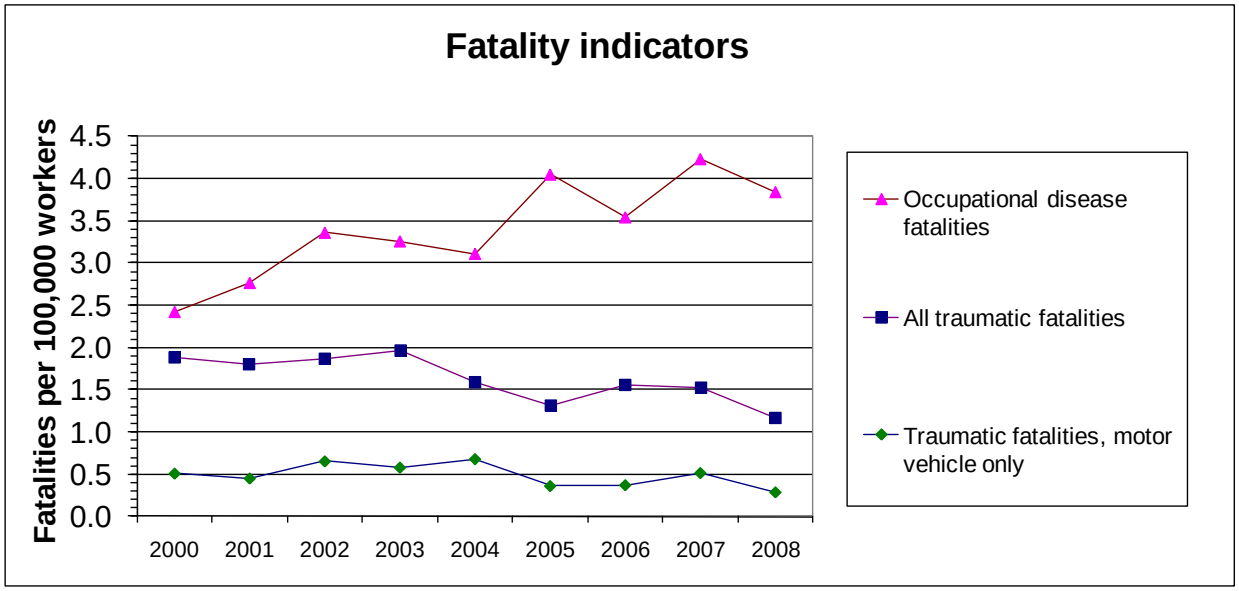
[72] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.

[73] Average year-to-year percentage change over time period where data are available. See Appendix B for formula used.

[74] Denominator is based on Canadian Vehicle Survey by Statistics Canada (see section 9. Hazardous Exposures)

Fatalities

There were 1.2 traumatic fatalities per 100,000 Ontario workers. This represents a decrease of 23% since 2007, contributing to a 5.8% annual decline over 2000-8. In contrast, the rate of fatalities due to occupational disease increased annually by 5.9% over 2000-8.



Motor vehicle fatalities

Fatalities due to motor vehicle incidents show much year-to-year variability, due to the low frequency of such events. However, the rate of motor vehicle fatalities was lower in 2008 than any of the previous years of the period of observation (0.28 fatalities per 100,000 workers). This was also true when fatalities were considered relative to the number of vehicle-kilometres to which drivers were exposed (0.6 fatalities per billion vehicle-kms).

Younger and older workers

The following two pages examine the claim rates of younger and older workers relative to a reference group of 25-44 year olds. The table and first figure show that the lost time claim rates for all age groups have been quite similar for the period of observation and that there was a decline in rates over 2003-8. However, the rate of decline for 15-19 year olds (10.4% per year) and for 20-24 year olds (8.1% per year) was *greater than* that for 25-44 year olds (7.6% per year). Further, in 2008, the risk of a lost time injury for a 15-19 year old was 92% that for a 25-44 year old.

In contrast, the rate of decline for older age groups was *less than* that for 25-44 year olds. In 2008, the risk of a lost time injury for a 55-64 year old was 10% greater than for a 25-44 year old.

A different pattern is seen for no lost time injury rates, which also declined over 2003-8 for all groups. Over that time period, younger workers were 20-30% more likely to have a no lost time injury than a 25-44 year old (20-30% more likely) and older workers were consistently less likely.

Illness and injury indicators: claim rates by age group[75]	2003	2004	2005	2006	2007	2008	Change 2007-8[76]	Average change over time period[77]
Lost-time claims per 1000 FTEs by age group								
15 - 19 yrs	24.1	21.9	20.3	19.4	16.3	13.9	-14.8%	-10.4%
20 - 24 yrs	23.2	22.5	22.2	18.4	17.7	15.2	-14.1%	-8.1%
25 - 44 yrs	22.5	21.0	20.2	18.3	16.7	15.2	-9.2%	-7.6%
45 - 54 yrs	21.6	21.0	20.7	18.8	19.0	17.4	-8.4%	-4.2%
55 - 64 yrs	22.9	21.7	20.0	18.2	18.4	16.8	-9.1%	-6.1%
Relative risk of lost-time claim by age group*								
15 - 19 yrs[#]	**1.07**	**1.04**	**1.01**	**1.06**	**0.98**	**0.92**	**-6.2%**	**-3.0%**
20 - 24 yrs	1.03	1.07	1.10	1.01	1.06	1.00	-5.4%	-0.5%
25 - 44 yrs (reference)	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		
45 - 54 yrs	0.96	1.00	1.02	1.03	1.14	1.15	0.9%	3.7%
55 - 64 yrs[#]	**1.02**	**1.03**	**0.99**	**1.00**	**1.10**	**1.10**	**0.1%**	**1.7%**
No lost-time claims per 1000 FTEs by age group								
15 - 19 yrs	66.3	67.2	65.1	62.7	54.5	47.1	-13.7%	-6.6%
20 - 24 yrs	63.8	66.0	68.3	60.9	56.0	48.1	-14.0%	-5.5%
25 - 44 yrs	53.2	51.8	51.0	48.5	43.2	39.4	-8.8%	-5.8%
45 - 54 yrs	47.3	46.3	48.2	45.2	42.2	38.3	-9.3%	-4.1%
55 - 64 yrs	45.6	44.7	44.1	41.3	37.2	35.3	-5.2%	-5.0%
Relative risk of no lost-time claim by age group*								
15 - 19 yrs	1.25	1.30	1.28	1.29	1.26	1.20	-5.4%	-0.8%
20 - 24 yrs	1.20	1.27	1.34	1.26	1.30	1.22	-5.7%	0.4%
25 - 44 yrs (reference)	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		
45 - 54 yrs	0.89	0.89	0.95	0.93	0.98	0.97	-0.6%	1.8%
55 - 64 yrs	0.86	0.86	0.86	0.85	0.86	0.90	4.0%	0.9%

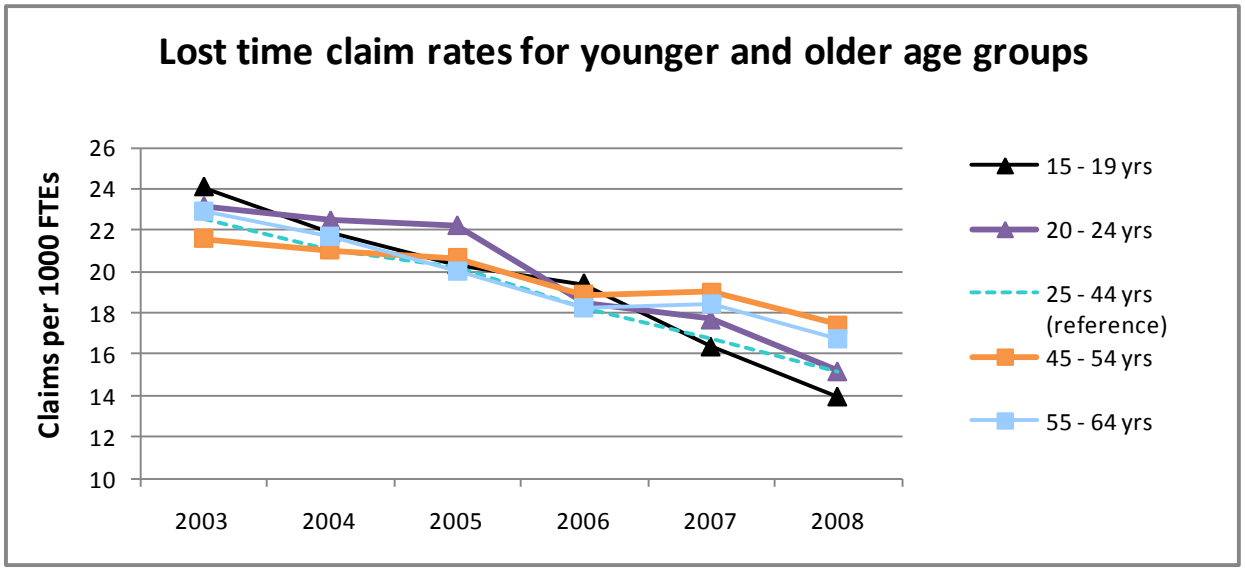
* Relative risk of a claim is calculated by dividing the claim rate of the age group of interest by the claim rate of the 25-44 yrs reference group. To illustrate how to interpret a relative risk: a relative risk of 1.15 means that the group of interest is 15% more likely to have a claim than the reference group.

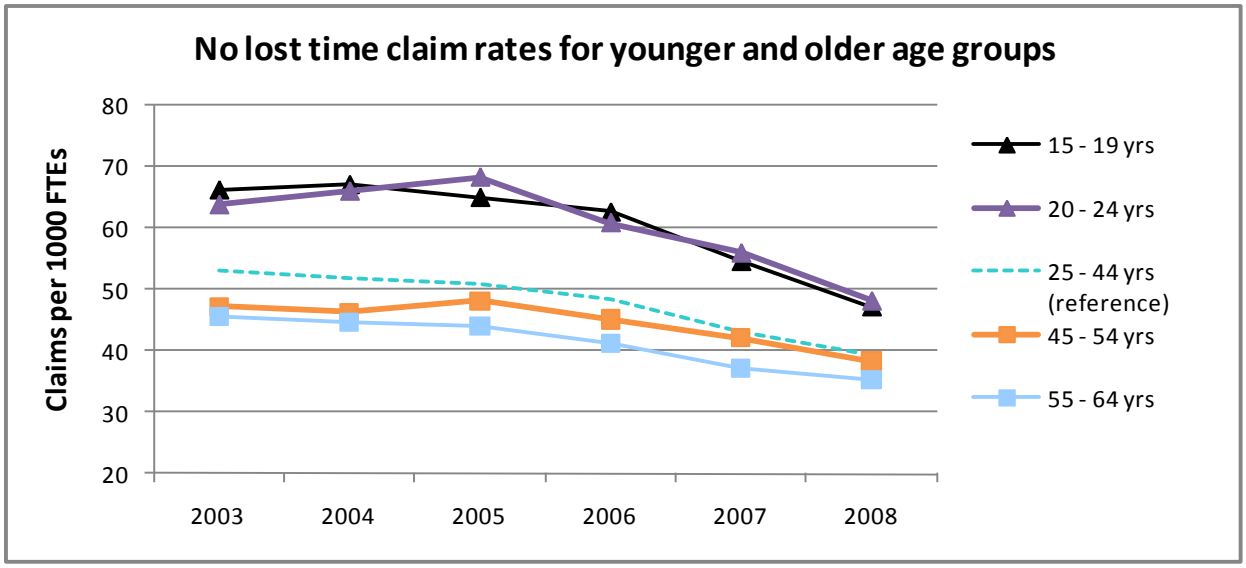
[#] Bolding indicates that it is a key performance indicator (see Introduction)

[75] Data provided by IWH. Claims are based on WSIB claims data matured to Jan 2010. FTEs are based on the Statistics Canada Labour Force Survey. More details in Appendix B.

[76] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.

[77] Average year-to-year percentage change. See Appendix B for formula used.


Lost time claim rates for younger and older age groups
Claims per 1000 FTEs
26
24
22
20
18
16
14
12
10
2003
2004
2005
2006
2007
2008
15 - 19 yrs
20 - 24 yrs
25 - 44 yrs (reference)
45 - 54 yrs
55 - 64 yrs

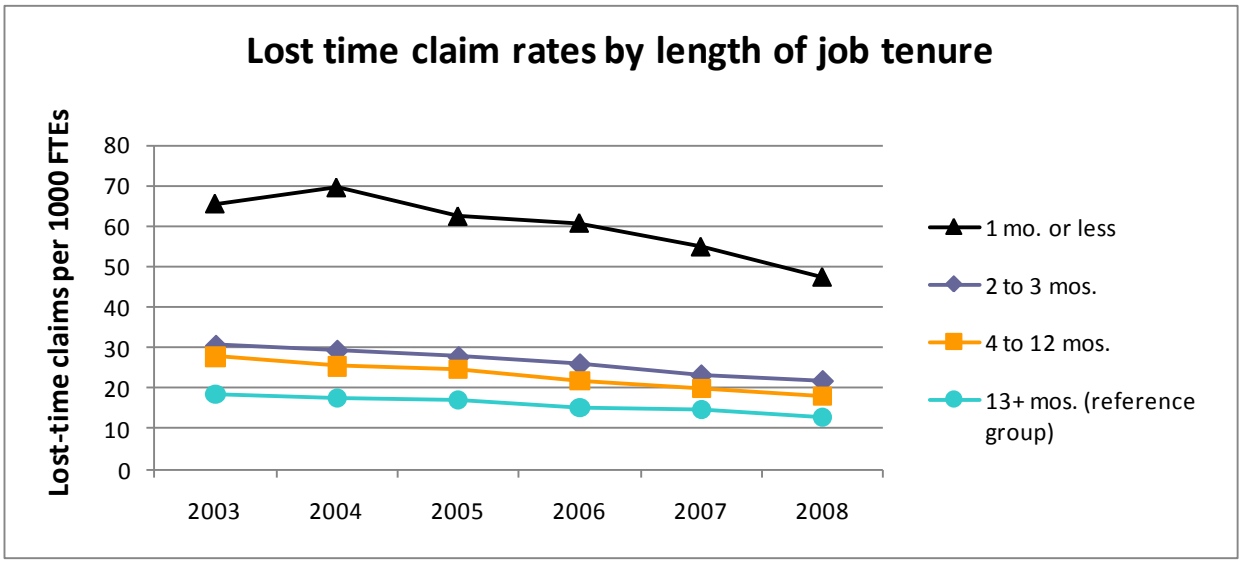

No lost time claim rates for younger and older age groups
Claims per 1000 FTEs
80
70
60
50
40
30
20
2003
2004
2005
2006
2007
2008
15 - 19 yrs
20 - 24 yrs
25 - 44 yrs (reference)
45 - 54 yrs
55 - 64 yrs

New workers

The next table and figure examine claim rates over 2003-8 by the length of job tenure. Claim rates for all job tenure groups declined over 2003-8. Over the period of observation, the claim rate for workers with job tenure of 1 month or less has been **almost four times higher** that of the reference group of experienced workers (i.e. job tenure of 13 months or more). This is shown in the table by the relative risk values. The rates for workers with 2 to 3 months and with 4 to 12 months tenure, has been about 70% and 40% higher than the reference group, respectively.

Illness and injury indicators: claim rates by job tenure group[78]	2003	2004	2005	2006	2007	2008	Change 2007-8[79]	Average change over time period[80]
Lost time claims per 1000 FTEs by length of job tenure								
1 mo. or less	65.4	69.4	62.3	60.7	54.9	47.5	-13.5%	-6.2%
2 to 3 mos.	30.5	29.3	27.7	25.9	23.2	21.8	-6.1%	-6.5%
4 to 12 mos.	27.7	25.4	24.7	21.9	19.8	17.9	-9.7%	-8.3%
13+ mos. (reference group)	18.6	17.7	17.0	15.2	14.7	12.7	-13.4%	-7.3%
Relative risk of lost-time claims by length of job tenure*								
1 mo. or less[81]	**3.5**	**3.9**	**3.7**	**4.0**	**3.7**	**3.7**	**-0.1%**	**1.1%**
2 to 3 mos.	1.6	1.7	1.6	1.7	1.6	1.7	8.4%	0.8%
4 to 12 mos.	1.5	1.4	1.5	1.4	1.4	1.4	4.2%	-1.2%
13+ mos. *(reference group)*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*		

* Relative risk of a claim is calculated by dividing the claim rate of the group of interest by the claim rate of the 13+ mos. reference group. To illustrate how to interpret a relative risk: a relative risk of 1.15 means that the group of interest is 15% more likely to have a claim than the reference group.



[78] Data provided by IWH. Claims are based on WSIB claims data matured to Jan 2010. FTEs are based on the Statistics Canada Labour Force Survey. More details in Appendix B.
[79] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.
[80] Average year-to-year percentage change. See Appendix B for formula used.
[81] Bolding indicates that it is a key performance indicator (see Introduction)

11. Cost (Outcome)

Concept description and rationale

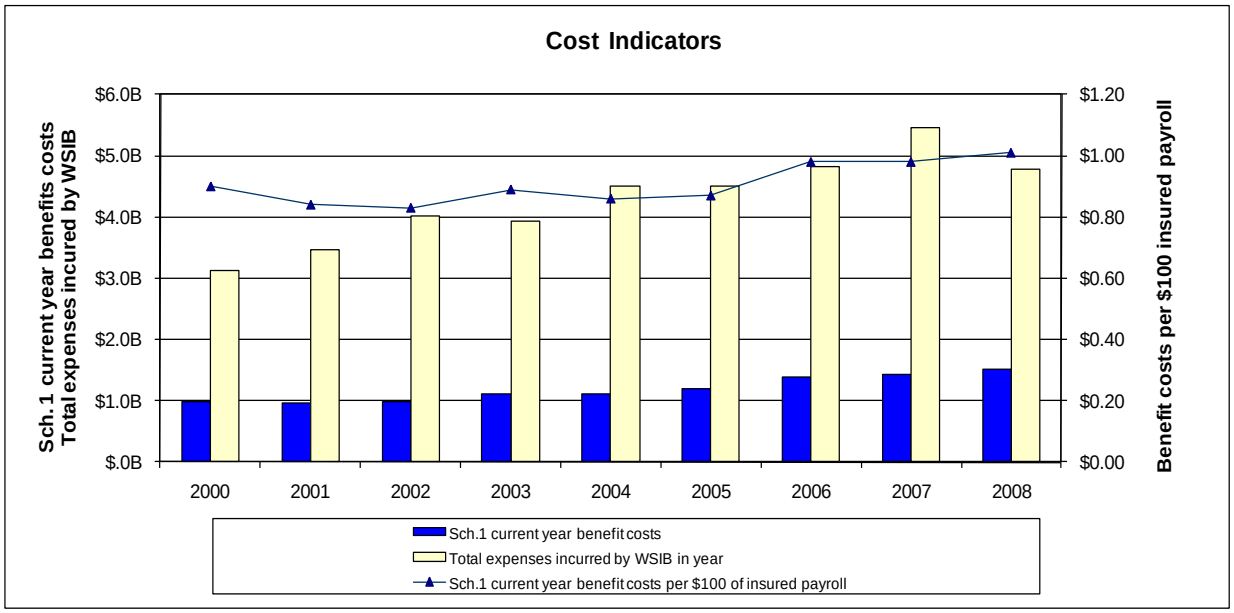
Cost = the cost of illnesses, injuries, disabilities and fatalities.

Indicator results

The total expenses incurred by WSIB decreased over 2007-8 by 12.7%, which compares with an increase on average of 5.4% per year over 2000-8. These expenses reflect the ongoing costs of injuries, illnesses and fatalities from previous years.

In contrast, current year benefit costs is based on costs arising from injuries and diseases referenced to the current year. The indicator "Schedule 1 current year benefit costs per $100 insured payroll" facilitates year-to-year comparisons because it adjusts for inflation and changes in the size of the workforce.[82] This indicator was $1.01 in 2008, representing an increase (3.1%) over the previous year. It has been increasing by 1.5% annually since 2000.

Inter-provincial comparisons are available for the indicator Schedule 1 current year benefit costs per $100 insured payroll. Ontario's value of $1.01 is higher than Alberta's ($0.96), but lower than the remaining provinces (range of $1.11 to $1.77).[83] This is different from the previous two report years, when Ontario was the lowest of all the provinces.



[82] A similar indicator based on Schedule 2 employers is not available.

[83] From Association of Workers' compensation Boards of Canada. Indicator ratios for 2008. Available from http://www.awcbc.org/common/assets/ksms/2008indicatorratios.pdf.

Cost Indicators[84]	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change over 2007-8[85]	Average. change 2000-8[86]
Total expenses incurred by WSIB in year[87]	$3.13B	$3.47B	$4.03B	$3.93B	$4.50B	$4.51B	$4.83B	$5.47B	$4.77B	-12.7%	5.4%
Sch.1 current year benefit costs[88]	$.98B	$.96B	$.99B	$1.12B	$1.12B	$1.19B	$1.38B	$1.43B	$1.52B	6.3%	5.6%
Sch.1 current year benefit costs per $100 insured payroll[89]	**$0.90**	**$0.84**	**$0.83**	**$0.89**	**$0.86**	**$0.87**	**$0.98**	**$0.98**	**$1.01**	**3.1%**	**1.5%**

[84] Additional details about sources of indicator data are in Appendix B.
[85] Change in the indicator from 2007 to 2008 is reported as a percentage of the value in 2007.
[86] Average year-to-year percentage change. See Appendix B for formula used.
[87] Includes benefit costs, net increase/decrease in benefit liabilities, loss of retirement income fund, administrative and other expenses, and legislated obligations and commitments.
[88] Current year benefit costs consists of: 1) payments made during the reference year for new lost-time injuries (including accidents and diseases), and 2) the benefits liabilities related to those accidents and diseases. Includes all benefits (i.e., short-term disability, long-term disability, survivors' benefits, healthcare and rehabilitation services). Excludes any administration expense.
[89] The boldface indicates that it is a key performance indicator (see Introduction).

Appendix A: Glossary

The following definitions and abbreviations were used in this report.

HSA: Health and Safety Association

Indicator: qualitative or quantitative variable which provides information on a concept of interest

IWH: Institute for Work & Health

MOL: Ministry of Labour

OHSA: Occupational Health and Safety Act

Performance: achievement, relative to pertinent criteria, which are dependent on the interests and perspectives of stakeholders.

Performance indicator (or performance measure): variable that provides information on performance.

Performance measurement: the act of measuring performance using indicators.

Performance concept or **performance measurement concept:** something which could be measured to assess the performance of an organization

Performance measurement framework: a group of performance indicators that together measure performance

RAC: Workplace Safety & Insurance Board Research Advisory Council

WSIA: Workplace Safety & Insurance Act

WSIB: Workplace Safety & Insurance Board

Appendix B: Technical notes on indicators

Table B1: Data used in the calculation of indicators

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
# of Ontario Workers (millions)[90]	5.70	5.90	6.00	6.10	6.20	6.30	6.40	6.49	6.59	6.69
# workers covered by WSIB (estimated)[91]	3.9	4.0	4.0	4.1	4.2	4.3	4.4	4.5	4.5	4.6
# workers covered by OHSA (estimated)[92]	4.97	5.16	5.27	5.38	5.53	5.61	5.66	5.74	5.84	5.90
Consumer Price Index for year (average)[93]	92.9	95.4	97.8	100.0	102.8	104.7	107.0	109.1	111.5	114.1

Additional technical notes on indicators

Monetary resources. "WSIB Prevention Division, Workwell and social marketing expenditures" and "WSIB funding to HSAs, MOL, Grants-Prevention," "HSA self-generated revenue," and "Ontario government funding" provided by Peter Diawatan in 2004-8. The last of these was obtained by him from Mila Ong, MOL in 2006-8. "IWH and WSIB RAC prevention-related research expenditures provided by IWH, based on a review of RAC and IWH documents. Rates were calculated using all Ontario workers in the denominator (see Table B1). Adjustment to 2008 dollars used the annual consumer price index (see Table B1).

Alignment. The key informant who provides data in each organization is asked to solicit a response of their most senior decision-maker to the question: "Which best describes your perception of alignment within the Prevention System in [year]." Response options are: strongly aligned, quite strongly aligned, somewhat aligned, slightly aligned and not at all aligned. Response rates over 2004-8 have been high, with 15 or 16 out of a possible 17 responses received.

Enforcement. Source of count-based data for 2000-2007 on field visits, orders (except serious contravention orders), convictions and fines were obtained from the MOL website. In 2008, they were provided by Michael Ray, OHS Branch, MOL. Data on field visits and orders is for fiscal year (April to March). Data on convictions and fines are for calendar year up to 2004 and for fiscal year thereafter. The classification of contraventions into serious and non-serious is conducted by MOL staff. The results of this analysis, as well as the convictions and fines data, were provided through a special request to the OHS Branch, MOL. Rate calculations use the number of workers covered by the OHS Act (see Table B1).

[90] From Statistics Canada Labour Force Survey. Data in 2008 available from: http://www40.statcan.gc.ca/l01/cst01/labor07b-eng.htm.
[91] Available from WSIB at http://www.wsib.on.ca/wsib/wsibsite.nsf/public/CurrentStatistics; based on Survey of Employment, Payrolls and Hours (SEPH), Statistics Canada.
[92] Estimate provided by Ministry of OHS Branch, Labour (Michael Ray for 2008). Based on Statistics Canada Labour Force Survey and assumptions about coverage by OHSA in particular sectors. Includes self-employed.
[93] Source: Statistics Canada. Available from: http://www40.statcan.gc.ca/l01/cst01/econ09a-eng.htm.

Knowledge/Skill Transfer. See Appendix C for questionnaire used to collect information on knowledge/skill transfer from OHSCO organizations. It was provided as an Excel spreadsheet. To enhance data quality, the spreadsheet used the validation criteria option to prevent invalid or incomplete responses. In addition, each questionnaire was compared with the responses from the same organization the previous year and any large changes were confirmed by further communication. In 2008, 16 organizations provided information. For the missing organization, values provided in the previous year were used. Rate calculations used the number of Ontario workers (see Table B1).

OHS Values, Beliefs, and Attitudes. These measures are based on WSIB Customer Satisfaction Surveys conducted by Ipsos Reid. One surveys injured workers and the other employers registered with WSIB. For the survey of injured workers in 2000, the criterion for selecting workers was filing a Form 6 in the previous twelve months that resulted in an allowed LT claim. From 2001-4, this criterion was the same except that the period for filing was the previous six months. In 2004, there was an additional criterion of having consented on the Form 6 to research.

Knowledge/Skill. Source of certification data is Prevention Education, WSIB. Rate calculations used the number of Ontario workers (see Table B1).

Hazardous Exposures. Vehicle kilometer data on vehicles < 4.5 tonnes was obtained in a custom tabulation by Statistics Canada of the Canadian Vehicle Survey. Data on vehicles ≥ 4.5 tonnes was taken from published annual reports on the Canadian Vehicle Survey (Table 4.1); available from: http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=53-223-X&CHROPG=1&lang=eng. Data for ≥ 4.5 tonnes, includes not only people driving for work, but also those driving for non-work purposes. Based on data for Canada 2005-8 from the same published reports (Table 6.11), we know that the non-work component results in an overestimation of 5-8% in the vehicle-kms in vehicles ≥ 4.5 tonnes; and of 2-3% of total vehicle-kms in vehicles of all sizes. Rate calculations used the number of Ontario workers (see Table B1).

Occupational Injuries, Illnesses, Disabilities and Fatalities.

Data on self-reported work absences of 7+ days and rates of absences were tabulated at IWH using the Survey of Labour and Income Dynamics by Statistics Canada. Included were those whose period of absence began in the reference year. The following survey items and responses were used (abbreviated version): Were you absent from this job for a period of one week or longer, not counting fully paid vacations? What was the main reason for this absence? Own illness or disability. Was this due to a work related illness or injury? For the rate calculations, the number of workers were based on the Labour Force Survey, excluding self-employed workers and those who had worked less than one week in the reference year.

Claim rates by age group and length of job tenure were tabulated at IWH. Numerator data were allowed claims in the WSIB claims database matured to January 2010. Denominator data were estimated using Statistics Canada's Labour Force Survey. Two types of workers were excluded from claim rate computations: self-employed workers; and workers in industrial sub-sectors (at the 3-digit Standard Industrial Classification group level) that are either only voluntarily or partially covered by WSIB, as wells as those in Schedule 2 establishments. For

more information see Smith PM, Mustard CA, Payne JI. (2004) A methodology for estimating the labour force insured by the Ontario Workplace Safety & Insurance Board: 1990 - 2000. Chronic Diseases in Canada, 25(3/4): 127-137.

Cost. Source of "Schedule 1 current year benefit cost" and "Schedule 1 current year benefit costs per $100 Sch. 1 insured payroll" information is Financial Reporting, WSIB; provided by P Diawatan for 2008. Data can also found at Association of Workers' Compensation Boards of Canada (AWCBC) website, in the Key Statistic Measures and Indicator Ratios tables. Source of total expenses incurred by WSIB are the WSIB Annual Reports.

Average change over a time period. The average change over a time period was calculated as the average year-to-year percentage decrease, based on the geometric mean of the year-to-year changes. See http://www.math.toronto.edu/mathnet/questionCorner/geomean.html regarding the concept of geometric mean applied here. The formula used was:
Average percentage change = (final claim rate/initial claim rate)**(1/no. annual changes) - 1.
For example, consider the claim rate to be 4.584 claims per 100 workers in 1999 and 3.825 claims per 100 workers in 2007. There were eight (8) annual changes during this time. The calculation used in this situation would have been: $(3.825/4.584)^{1/8} - 1 = -0.022 = -2.2\%$

Limitations of indicators
Monetary resources. Transfers to HSAs include overhead costs; WSIB Prevention Division, Workwll and social marketing expenditures do not. Some minor components of the "WSIB transfers to HSAs…" may not be prevention-related. Transfers for the administration of the Centres of Research Expertise have not been included.

Legislation & Regulations. The Legislation & Regulations indicator has two weaknesses. One is that it is a qualitative indicator. Second, the data concerning 2000-2003 was collected from a single MOL respondent (in 2004), whereas for the years 2004-6, the data were collected from all OHSCO organizations in the year following the report.

Alignment. The qualitative summary is based on the collective perceptions of the Sub-committee. The quantitative indicators are based on subjective evaluations. It is unknown the extent to which perceptions might vary over time in response to the most recent OHSCO events, as opposed to the entire year being assessed.

There has been inconsistency between the two quantitative indicators. For each of 2007 and 2008, people perceived alignment as greater than in the previous year, yet the rating of alignment in both those years was lower than in 2006.

Enforcement. The count-based indicators of field visits and orders are thought to accurately reflect the actual enforcement activity. The classification of some orders as serious contraventions relies on the judgment of MOL staff and could have involved some change as staff changed. The rate-based indicators rely on estimates of the number of workers covered by OHSA. While this number is based on Statistics Canada Labour Force Survey reports, it also relies in part on estimates in sectors where there is partial coverage of some industrial sectors by OHSA.

Knowledge/Skill Transfer. Knowledge/skill transfer data are collected through a survey of OHSCO members. There are many opportunities for random and systematic errors because of the unavailability of data in some OHSCO organizations, different understanding of terminology, and the completeness of data capture at source. Effort has been made to address these through the creation of an Excel template with validation criteria for data collection, holding a workshop with data providers in March 2007, asking respondents to rate the precision of the data provided (see Appendix D); and following up with respondents on data values that are unexpected.

OHS Beliefs, Values and Attitudes. The single-item indicators do not fully capture the Values, Beliefs, and Attitudes concepts of interest. Furthermore, they have not been validated as being predictive of outcomes.

The value of these indicators is also limited by the nature of the populations being sampled for the survey. Instead of being representative of all Ontario employers and all employees, they are based on only the employers registered with the WSIB (which in turn cover approximately two-thirds of employees) and only employees that have had a lost-time claim.

Knowledge/Skill. Persons passing the certification test captures only one small aspect of Knowledge/Skill in the population.

Occupational Injuries, Illnesses, Disabilities and Fatalities. Not all work-related injuries are captured by claim statistics. Approximately thirty per cent of the workforce is not covered by WSIB and there is a substantial amount of underreporting to the WSIB.[94]

Some of the claim rate calculations use the number of workers covered by WSIB (Table B1). This is imputed from the size of the payroll reported by workplaces to WSIB and sector-based results of the Statistics Canada Survey of Employment, Payrolls and Hours. The fatality rate calculations use the number of Ontario workers in the denominator, but the numerator would capture only workers covered by WSIA, in the case of occupational diseases; or only the workers covered by either WSIA or OHSA in the case of traumatic fatalities.

Cost. The current year benefit costs involve actuarial assumptions regarding the benefits liabilities. Some variation in this indicator over time can occur because of changes in these assumptions.

The indicators of Cost are limited to WSIB-related costs. Only two-thirds of Ontario workers have WSIB coverage. Furthermore, a full accounting of costs from a societal perspective would include costs to employers besides WSIB premiums, costs to workers and their families, and other costs to society.

[94] Shannon HS, Lowe GS. How many injured workers do not file claims for workers' compensation benefits? American Journal of Industrial Medicine 2002; 42(6):467-473.

Appendix C: Questionnaire for OHSCO Member Survey

The questionnaire used for the 2008 report was the same as the one used the previous year which follows.

Occupational Health and Safety Council of Ontario
Data Collection for 2007 OHSCO Performance Report

April 30, 2008 Final

I Preamble

The information collected in this questionnaire will be used to compile the 2007 version of the annual OHSCO Performance Report. It is concerned with the activities of the calendar year 2007.

II Instructions

1. If you are the contact who will be completing this questionnaire for your organization, please acknowledge that you have received this package by e-mailing jspeers@iapa.ca.
2. When completing the questionnaire:
- Please review the information at the start of each section explaining the scope of information sought, including what to include, what to exclude and terminology.
- To move within this worksheet use the arrows or tab buttons. You may also reposition the sheet using the scroll bar.
- Enter the information requested in the appropriate fields, either directly or by selecting options from a drop down list. Pop-up-help boxes explain further information as to the information requested. If these boxes are in the way you can click and drag them to a more appropriate spot on your display.
- Please note that we have also added a "precision rating" field to the right of each numeric value. Use this to let us know how
accurate you feel your numeric responses are.
- If you find you cannot select from the drop down list, hit the escape button and then try again.
3. Ensure you save the completed worksheet in your computer.
4. Please answer **every** question (unless instructed to skip) in the questionnaire.
5. If you have any questions or uncertainty about how to fill any part of the questionnaire, please contact John Speers at
1-800-406-4272 ext. 2457 or jspeers@iapa.ca Discussing uncertainties will help ensure the data collected are reliable and valid.

We appreciate your time in completing this form.

Please e-mail your completed questionnaires to jspeers@iapa.ca by May 31, 2008

III Confidentiality of Data

Upon receipt of your questionnaires, data will be entered into a master Excel workbook. The original questionnaires and related Excel files will be seen only by members of the System Measurement Subcommittee that prepare the survey data for the report, and any staff assisting them in their organizations. The Excel files may be viewed in future years by select Subcommittee members when conducting year-to-year comparisons of the data. The final report on 2007 will not include data from individual organizations. Rather, the data from all organizations will be aggregated before being reported.

1. Identifying Information

a) Name of Organization:	
b) Name of person completing this report:	
c) Telephone number and extension (if applicable)	
d) e-mail address:	
e) Date report completed	

2. Training

Use this section to report OHS training and awareness sessions where there are learning objectives and the expectations that participants will have worked to achieve those objectives. This can include (and is not restricted to):
- classroom and on-site instruction
- distance and self-directed learning when there has been confirmation that learning to a particular level has taken place (e.g., by test completion).
- OHS training/ awareness sessions provided to youth/ students through non-workplace settings such as schools.

Exclude:
- education/ awareness sessions provided through conferences that will be included in section 3
- training where the primary audience is staff of OHSCO members (HSAs, IWH, MOL, WSIB)

In the case of train-the-trainer programs: - count only the trainers you have trained, not their participants.

Participant-day Calculations; 1 participant-day = the equivalent of 1 day of training for 1 participant. E.g..: a 1/2 day course with 20 participants = 10 participant-days.

Please answer **every** question unless instructed to skip. If service not provided, enter "0." If service provided, enter number greater than 0 or "unavail" (if data are unavailable).

a) Was your organization involved in the delivery of OHS training/ education to Ontario clients in 2007?		
b) For each type of training, report the number of participants trained and the number of Participant-days of training provided in 2007 Please ensure there is no double counting among categories i through v below		
i) JHSC certification Training - Part 1 (basic):		
number of Participants		
number of Participant-days		
ii) JHSC certification Training - Part 2 (hazard specific):		
number of Participants		
number of Participant-days		
iii) Train-the-trainer sessions (delivered to external participants):		
number of Participants		
number of Participant-days		
iv) All other training (i.e. Sessions with a component that evaluates* knowledge and/or skills): ** Evaluation needs to be built into the program design but may include informal methods such as feedback and observation*		
number of Participants		
number of Participant-days		
v) Awareness sessions (i.e. sessions with no evaluation component)		
number of Participants		
number of Participant-days		
c) Were there any training/ awareness sessions not included in the above because it could not be disaggregated to the level specified or did not fit into the categories?		
d) If yes, add the data not already captured and explain why it could not be included in the above:		
number of Participants		
number of Participant-days		
Please explain why the data were not already captured:		

Total Reported Training Participants:	0
Total Reported Training Participant-days:	0

3. Conferences, Workshops and Similar Functions

Use this section to report OHS education/ awareness delivered to external clients through conferences, workshops and similar type functions not reported in Section 2. For this section include:
- participant data for OHS conferences where your organization had the primary responsibility for the administrative task of receiving and processing participant registrations (this is to eliminate double counting where more than one OHSCO member has participated in a conference sponsored by one or more OHSCO members).
- participant data for speaking, workshop or other sessions that your organization has delivered at conferences sponsored by organizations/ groups other than OHSCO members.

Exclude:
- functions where the primary audience is staff of OHSCO members (HSAs, IWH, MOL, WSIB)

Calculation of Participant-days:
- if reporting for an entire conference, use Participant-days = Average daily attendance x length of conference in days. E.g., for a 2 day conference, with average daily attendance of 150, participant-days = 150 x 2 = 300.
- if reporting for a speaking session only, use Participant-days = session attendance x length of session in hours / 6 (hours/day).

E.g. for a session with an estimated attendance of 100 that was hour in length,
participant-days = 100 x 1 / 6 = 17.

Please answer every question unless instructed to skip. If service not provided, enter "0." If service provided, enter number greater than 0 or "unavail" (if data are unavailable).

a) Was your organization involved in the delivery of OHS conferences, workshops and similar functions to Ontario clients in 2007?		
b) In the following table, for each type of function, report the number of participants, and the number of Participant-days of external attendees in 2007		
i) Functions where your organization had the primary responsibility for receiving and processing registrations:		
number of Participants		
number of Participant-days		
ii) Speaking, workshop or similar sessions that your organization delivered at functions sponsored by organizations/ groups other than OHSCO members:		
number of Participants at sessions delivered by your organization		
number of Participant-days corresponding to participants above		
Total Reported Conference, Workshop etc. Participants:	0	
Total Reported Conference, Workshop etc. Participant-days:	0	

4. Training Materials

Use this section to report OHS training materials distributed to external clients for which there was no formal confirmation that training delivery or achievement took place. For example you may have provided a video-based training program with 10 participant guides to a workplace but did not receive any formal confirmation as to the number of persons that actually received this training. For this example you would have delivered 10 participant-units of materials.

a) Did your organization distribute OHS training materials to Ontario clients in 2007?		
b) If yes, enter number of participant-units of training materials distributed:		

5. Consulting and Advisory Services

Use this section to report OHS consulting and advisory services that are tailored to a client's need, and provided to firms, workers or organizations comprised of firms or workers. Include:

Exclude

- consultation/ advice provided by MOL (this is captured independently of this survey)
- activity already reported in sections 2 (training) and 3 (conferences, workshops and similar functions)
- information delivered via your website (this will be captured in section 6)
- bulk e-mails, faxing or mailings such as newsletters, magazines and promotional pieces

Calculation of Hours - include direct and associated indirect time (e.g. meeting preparation, report writing etc.) that Consulting/ H&S Professional Staff have spent associated with providing such services. This time should be comparable to the concept of "billable hours". Do not include general overhead time in this calculation.

Please answer **every** question unless instructed to skip. If service not provided, enter "0." If service provided, enter number greater than 0 or "unavail" (if data are unavailable).

a) Did your organization deliver OHS consulting or advisory services to firms or workers in Ontario in 2007?		
b) Hours of consulting/advisory service provided in 2007 that were devoted to High Risk/Last Chance Firms:		
c) Total hours of consulting/advisory service (including any reported in b above) provided in 2007:		

6. Website Activity

Use this section to report information on the **prevention related** pages of your organization's websites. This data should be readily available in standard reports provided by your web service provider.

Terminology:

- a **Page View** is defined as a hit to any file classified as a page (you will have fewer Page Views than "hits")
- a **Visit** is a series of actions that begins when a visitor views their first page from the server, and ends when the visitor leaves the site or the **idle-time limit** is reached.
- Note: the number of page views should be greater than the number of visits for a website. Also, number of page views should be greater than the number of downloads.

Please answer **every** question. If service not provided, enter "0." If service provided, enter number greater than 0 or "unavail" (if data are unavailable).

a) Total number of "Page Views" for 2007		
b) Total number of "Downloads" for 2007		
c) Total number of "Visits" for 2007:		
d) Idle-time limit in number of minutes (default time normally is 30 minutes):		

7. Alignment

Alignment within the Prevention System refers to the alignment of the goals, activities and metrics within and between OHSCO member organizations.

Please ask the person in your organization who is a voting member of OHSCO to answer the following two questions.

a) Which best describes your perception of alignment within the Prevention System in 2007? answer appropriate number corresponding to: 1 - Strongly aligned 2 - Quite strongly aligned 3 - Somewhat aligned 4 - Slightly aligned 5 - Not at all aligned	
a) How does the alignment of the System in 2007 compare with that in 2006? 1 - Much more aligned 2 - Somewhat more aligned 3 - No change 4 - Somewhat less aligned 5 - Much less aligned	

8. Legislation & Regulations

Have there been any notable changes in legislation or regulations in 2007 (i.e. changes likely to make a difference in terms of worker illness, injuries or fatalities in Ontario or your sector)? Please describe, including reference to the formal name and/or number of the legislation or regulation.

Appendix D: Determination of Data Quality in Survey Data

As indicated in the introduction to the questionnaire in Appendix C, people were asked to rate the precision of each data element they provided in the survey of OHSCO members as follows:

- High = +/- 5%
- Medium = +/- 6% to 20%
- Low = more than +/- 20%

When the Sub-committee computed a number across organizations, a distribution of precision ratings could therefore be associated with it. The following example with only three organizations illustrates the principle involved:

Example 1:

Data element	Org 1		Org 2		Org 3		Total across organizations			
	No.	Data rating	No.	Data rating	No.	Data rating	No.	% of total rated High	% of total rated Med	% of total Low
Consultation hrs	100	High	50	Med	100	Low	**250**	40	20	40

In the example above, the total number of 250 was derived from data of varying precision. 100/250 or 40% of the total was based on data rated as High precision; 20% of the total based on Medium precision; and 40% of the total based on Low precision.

Another element not yet mentioned contributes to the data quality. There were cases where organizations acknowledged carrying out a particular activity, but did not have the requested data available.

The final set of criteria used to judge the quality of any number derived across organizations was based on both the estimated precision of data contributing to the total and the number of organizations unable to provide data.

Quality criteria for numbers in report

Quality rating of data derived across multiple organizations	**Criterion related to the distribution of precision rating**	**Criterion related to the number of organizations that were not able to provide data**	**Link between the two criteria**
High	At least 90% of the contributing data rated as High	Data unavailable from no more than one organization	AND
Medium	At least 90% of the contributing data rated as Medium or High	Data unavailable from no more than two organizations	AND
Low	Less than 90% of the contributing data rated as Medium or High	Data unavailable from three or more organizations	OR

The following example will illustrate the application of the criteria.

Example 2:

Data element	Org 1		Org 2		Org 3		Org 4		Total across organizations				
	No.	Data rating	No.	Data rating	No.	Data rating	No.	Data rating	No.	% of total rated High	% of total rated Med	% of total rated Low	No. of orgs with data unavail
Consult'n hrs	100	High	50	Med	100	Low	unav ail	n/a	**250**	40	20	40	1

Although data is unavailable from only one organization, only 60% of the data contributing to the total of 250 is rated Medium or High. The total of 250 would therefore be given a rating of "Low" using the criteria described above.