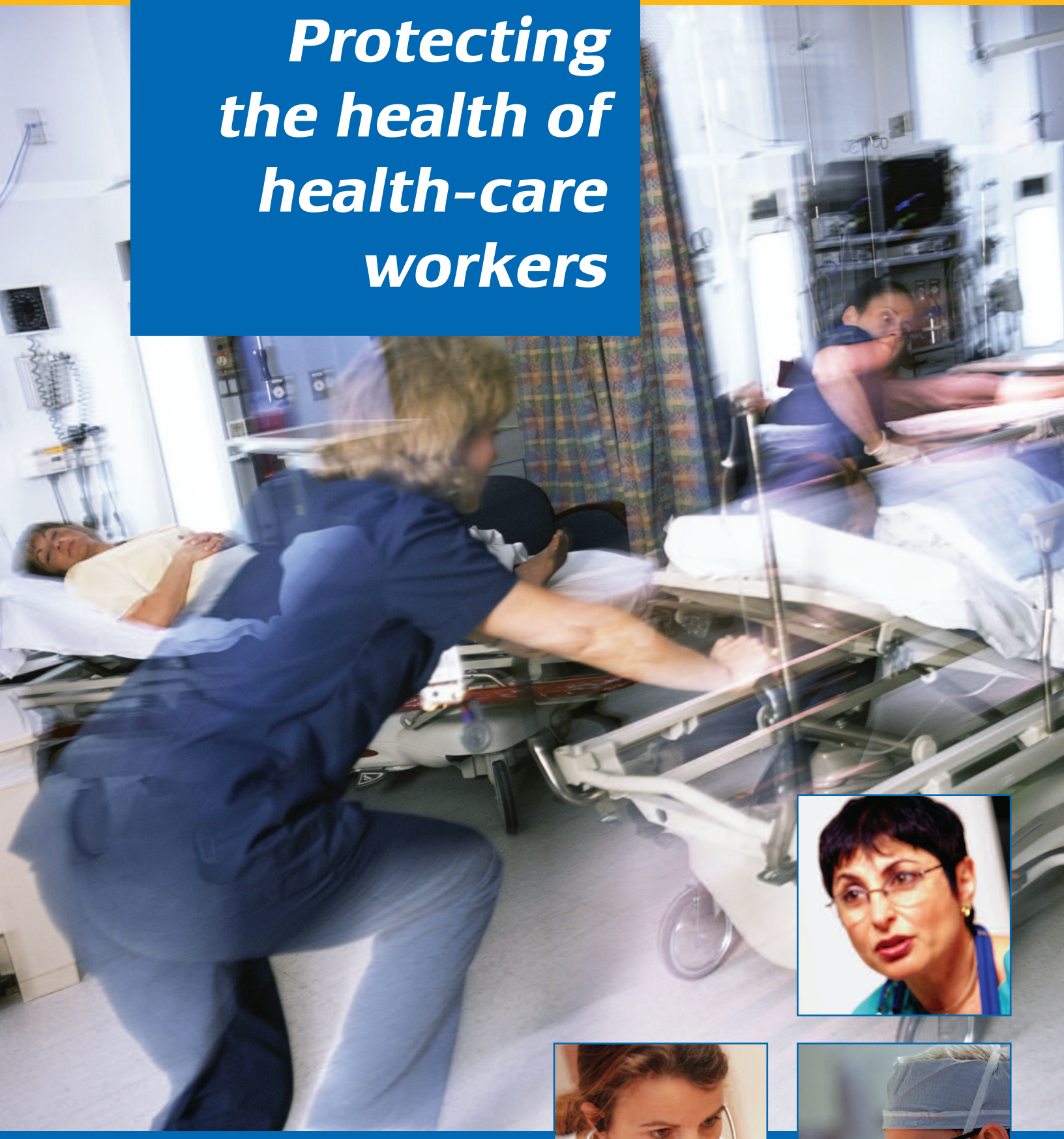
Annual Report 2005

Protecting the health of health-care workers



INSTITUTE FOR WORK & HEALTH
INSTITUT DE RECHERCHE SUR LE TRAVAIL ET LA SANTÉ

The Institute at a glance

The Institute for Work & Health (IWH) is an independent, not-for-profit research organization. Our mission is to conduct and share research with workers, labour, employers, clinicians and policy-makers to promote, protect and improve the health of working people.

What We Do

Since 1990, we have been providing research results and producing evidence-based products to inform those involved in preventing, treating and managing work-related injury and illness. We also train and mentor the next generation of work and health researchers.

How We Share Our Knowledge

Along with research, knowledge transfer and exchange is a core business of the Institute. The IWH commits significant resources to put research findings into the hands of our key audiences. We achieve this through an exchange of information and ongoing dialogue. This ensures that research information is both relevant and applicable to stakeholder decision-making.

How We Are Funded

Our primary funder is the Ontario Workplace Safety & Insurance Board (WSIB). Our scientists also receive external funding from major peer-reviewed granting agencies.

Our Community Ties

The Institute has formal affiliations with four Ontario universities: McMaster University, University of Toronto, University of Waterloo, and York University. The Institute's association with the university community and its access to workplaces and key sources of data have made it a respected advanced training centre. Over the last several years, IWH has hosted a number of international scientists. Graduate students and fellows are also associated with the Institute. They receive guidance and mentoring from scientific staff and participate in projects, which gives them first-hand experience and vital connections to the work and health research community.

2005 at the Institute

Each sector of the workforce has its own particular risks of illness and injury. One group whose risk is higher than average is health-care workers. This is reflected in the fact that they consistently have higher rates of lost-time claims than other workers.

In our 2005 Annual Report, we describe several major research and prevention initiatives underway to protect the health of these workers. We highlight the Institute's involvement in these projects as a research and prevention partner.

In addition to the goal of reducing illness and injury among health-care workers, this knowledge and experience may provide valuable lessons for other workplace sectors.

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Dr. Roland Hosein,
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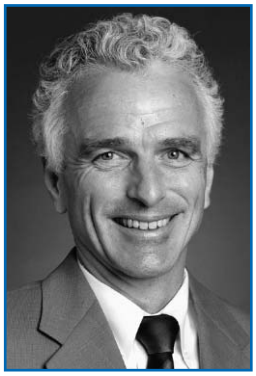

Dr. Cameron Mustard,
President

This annual report puts a spotlight on the 400,000 Ontarians employed in the health-care sector. Why this focus on health-care workers? Compared to other workers, health-care workers are more likely to miss work because of injury, illness and disability. The need to protect the health of these workers is vital, as it is for all employees in Ontario. Over the past decade, there have been growing efforts to prevent work-related health problems in health-care workers. However, during this time workloads have increased and patient care has become much more complex.

The Institute is involved in several initiatives to prevent injury and illness in this sector. Our involvement showcases our ability to conduct quality research, and to work with key partners in prevention and research. This is highlighted through the examples in this report.

On a broader scale, the Institute actively pursued its mandate to conduct relevant research and produce evidence-based products.

In 2005, we completed the second year of a four-year pilot program, funded by the Workplace Safety & Insurance Board (WSIB), to undertake systematic reviews of the prevention literature. In this program, researchers methodically review and analyze existing research on questions identified by our audiences. We completed prevention reviews on young worker injury and office ergonomics, and a literature review on occupational health and safety management audit tools.

Overall, the majority of our research focuses on musculoskeletal disorders, which account for the highest number of lost-time claims in Ontario. This work includes studies on prevention, treatment and return to work. Another research theme looks at labour market experiences, such as the availability of work and job characteristics. We also study behaviour consequences as a result of insurance and regulation.

Over the past year, we also continued our strong ties with external research partners, including the Centres for Research Excellence in Musculoskeletal Disorders and Occupational Disease. We also co-ordinate with these centres on knowledge transfer and exchange (KTE) activities.

One highlight of our KTE activities was helping to develop a network of local physicians who hold influence with their colleagues. This was done in collaboration with Ontario's Guidelines Advisory Committee and other partners. From the interaction with this network, we developed a Back Pain booklet and various tools to help physicians use the best evidence to treat low-back pain.

We also strengthened the alignment of our research agenda with the prevention members of the Occupational Health and Safety Council of Ontario.

Many people contributed to these successes, and they must be acknowledged and thanked for their efforts.

First, we would like to take this opportunity to thank Mark Rochon, who stepped down in 2005 after a three-year term as chair of the Board. On behalf of Board members and Institute staff, we would like to thank Mr. Rochon for helping to lift our performance to a new level.

The Institute benefits greatly from the insights provided by our Scientific and Knowledge Transfer and Exchange Advisory Committees. We also want to extend a thank you to the members of our Board of Directors who continue to provide guidance to our Executive.

It is a tribute to the quality of Institute staff that the level of funding from peer-reviewed grants remains high. This amount exceeded $2 million in 2005. On behalf of the Board, we thank staff for their commitment and excellence.

During 2006, we anticipate another productive year. Over 70 projects are underway at the Institute. We will also be preparing for our next five-year review and planning for the 2007-2012 period. We look forward to continuing our contribution to the efforts to protect and improve the health of workers.

Chair, Board of Directors

President

Each day they organize and deliver health services to millions of people who count on them for help. "They" are Canada's health-care workers, hundreds of thousands of clinical professionals and support staff who work in a variety of settings across the country – from doctors' offices and highly specialized hospitals to home care and long-term care facilities. They work in major cities, in small towns, and they also provide care and service to those living in rural and remote communities.

First and foremost, we think of these nurses, doctors, therapists and support staff as providers of care. But they are also workers, and as such, are just as vulnerable to work-related health problems as any other group of employees.

Our 2005 Annual Report focuses on the health of Ontario's health-care workforce, which has experienced many changes over the past decade. During this time, there have been increasing demands for improvement both in the quality of health-care services and also in how efficiently they are delivered. In many settings, health system reform has had certain unintended consequences, including a deterioration in the quality of employment in the health-care sector.

In this brief report, we look at issues affecting the health of Ontario's health-care workforce and describe some provincial initiatives underway to protect and improve it. These initiatives demonstrate the power of strong leadership, and the importance of aligning and focusing priorities within a sector. They also underscore the need to dedicate resources in this area. The lessons learned from these initiatives may apply to all employment sectors in Ontario.

Trends that affect health-care workers

An aging population

Efforts to improve the quality and efficiency of health-care services are taking place at the same time as Canada's population gets older. The number of Canadians over the age of 65 is growing faster than ever before, both in total numbers and as a proportion of the population. This demographic reality will add to the demand for health services, as care providers are expected to manage a growing burden of chronic disease among older Canadians.

The size of Canada's working-age population is also growing, but more slowly than the numbers of older Canadians. Given that a substantial amount of funding of health, education and social services comes from personal income tax revenues, the dwindling proportion of working-age Canadians is raising concerns about our ability to sustain the universality of these public programs.

Within the health-care sector, however, there has been a more prominent concern: namely, that the number of workers joining the health-care

workforce may not be sufficient to meet the needs of an aging population.

Heavier workloads

In the past decade, because of fiscal constraints, the Canadian health-care system has experienced a foreshadowing of these demographic trends, particularly the prospect of an inadequate supply of health-care workers to meet expanding needs.

During an extended period in the 1990s, the rate of growth in health-care spending slowed sharply in Canada. This resulted in a marked reduction in the availability of inpatient beds and in the complement of nurses. The number of registered nurses per capita declined seven per cent between 1994 and 1999 – from 80.3 nurses to 74.6 nurses per 10,000 population. During this period there was also a sharp increase in the percentage of registered nurses working part-time – from 36 per cent in 1992 to 48 per cent in 1998.[1]

One significant impact of decreased funding was that heavy workloads became increasingly common in most sectors of the health-care delivery system. Not only can such workloads increase the risk of clinical errors, but they can also affect the health and well-being of clinical caregivers.

Data on sickness absences among nursing personnel provide clear evidence that high work demands have a direct effect on workers' health.

- In 2002, the absentee rate for full-time registered nurses in Canada was 83 per cent higher than the absentee rate in the general labour force.
- Between 1997 and 2002, the absentee rate for registered nurses increased by more than 16 per cent.[2]

The costs of this burden of ill-health are enormous: one estimate suggests that more than 16 million nursing hours are lost to injury and illness yearly in Canada, which translates into almost 9,000 full-time nursing positions lost across the country each year.[3,4]

The health of the health-care workforce

Health-care workers face a variety of health risks, including physical and emotional stresses, exposure to hazardous substances and infectious agents, verbal and physical abuse, and work organization issues.

According to Ontario's Workplace Safety & Insurance Board (WSIB), almost 400,000 people are currently employed in the health-care sector in Ontario.

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"The adult human form is an awkward burden to lift or carry. Weighing up to 200 pounds or more, it has no handles, it is not rigid, and it is susceptible to severe damage if mishandled or dropped. When lying in bed, a patient is placed inconveniently for lifting and the weight and placement of such a load would be tolerated by few industrial workers."

– from an editorial entitled "The nurse's load" (Lancet 1965; ii: 422-3)

- In 2004, this sector experienced 8,622 injuries that resulted in workers missing one or more days of work. There were another 12,850 injuries requiring medical care that were reported to the WSIB.
- Compared to other employment sectors in Ontario, the health-care sector has not achieved a similar reduction in compensation claim rates over the past decade.[5]

Musculoskeletal injuries

Patient handling, which includes lifting, transferring and repositioning, is a major cause of caregiver injuries in the institutional health-care sector. Caregivers are at a high risk of developing back pain, neck and shoulder pain and other musculoskeletal complaints. Indeed, the lifetime prevalence of back pain among health-care workers is greater than 70 per cent. Musculoskeletal disorders (MSDs) also account for the greatest number of lost-time injuries in health-care workers.

Research at the Institute for Work & Health (IWH) and elsewhere has shown that the causes of work-related MSDs include both physical factors, such as stresses on joints, and workplace psychosocial factors, such as how work is organized and the level of social support in the workplace. There is also evidence that dissatisfied workers are more likely to report low-back problems.

Mental health symptoms

Mental health symptoms occur at higher rates among health-care workers than among workers in other professions.

- Registered nurses, licensed practical nurses and care aides reported significantly higher depression scores than women in teaching or child care, according to the 1996/97 National Population Health Survey.[6]
- The same survey showed that home care workers reported significantly higher rates of mental health symptoms on a regular basis compared with all working women.

Workload is the most consistent cause of dissatisfaction in nursing occupations.

Exposure to infection

Working with patients who are ill increases the risk that health-care workers will be exposed to acute or chronic infections. While precautions are in place to prevent this from occurring, such infections still occur.

One important example of occupational risk within the health-care system is needlestick injuries.

Accidental pricks may expose health-care workers to the blood of a patient who may have an infectious disease. Surveillance in 12 Canadian hospitals showed that 1,436 needlestick injuries had occurred among workers over a one-year period in 2000-2001.[7]

In 2003, an outbreak of Severe Acute Respiratory Syndrome (SARS) in the Greater Toronto Area provided another, more dramatic example of how health-care workers can be affected by infectious disease. In total, 51 per cent of all 144 suspected or probable SARS cases involved health-care workers. Other emerging and established pathogens that place health-care workers at risk include HIV/AIDS, West Nile virus, monkeypox, influenza and measles.[7]

Occupational allergies and asthma

Other growing concerns in the health-care sector are occupational allergies and asthma. Allergic contact dermatitis occurs after exposure to irritants and allergenic chemicals, such as glutaraldehyde, formaldehyde, nitrous oxide and latex. Glutaraldehyde, for example, is widely used to sterilize medical equipment, but repeated exposure has been linked to contact dermatitis and occupational asthma. The presence of latex sensitivity has been reported in 12 per cent of health-care workers. Latex is used in gloves, ventilator tubing, syringes and many other medical products.[1]

Violence towards health-care workers

Exposure to verbal abuse and physical violence among health-care workers remains a significant problem. A 2000 survey of more than 9,000 nurses in Alberta and British Columbia captured a snapshot of these experiences: 38per cent of the nurses said they had experienced verbal abuse in their previous five working shifts. Physical assault – including being spat on, bitten, hit or pushed – was reported by 17 per cent of nurses in Alberta and by 20 per cent of those in B.C. While most such incidents do not result in serious physical injury, they may lead to short- and long-term psychological effects.[8]

Work organization and health

How work is organized contributes significantly to the health of health-care workers, as shown by study findings from the Institute and others. Work organization refers to the way work is structured and managed. This includes scheduling, management style, job characteristics such as variety, complexity and number of tasks, and control over decision-making.

In 2001, IWH researchers conducted a study exploring work organization and musculoskeletal injuries in acute health-care workers in British Columbia. This study showed that several factors increased the risk of injury that resulted in a compensation claim: low job control, working during periods of high employee absenteeism due to illness, and greater physical demands at work.[9]

Since 2000, all provinces have reported an increase in the complexity of care and, along with health-care restructuring, a reduction in the number of beds and increased workloads. Research has shown that heavy workloads increase the probability of worker injury, and may also contribute to stress and burnout. One study of health-care workers at a large Ontario hospital was conducted during a three-year restructuring period. A decline in health was predicted by several factors that included work interference with family life and increase in workload.[8]

Protecting the health of health-care workers

In recent years, there has been an increased number of prevention and safety programs to reduce risks and improve the health of health-care workers. In Ontario, the Ministries of Health and Long-Term Care and Labour have announced two major initiatives to reduce injury to workers. In addition, a new Centre for Research Expertise on Occupational Disease (CREOD) was created.

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The Institute for Work & Health is involved in research on some of these initiatives, which are described below.

The Ontario Patient Lift Initiative

The effect of lifting patients on musculoskeletal injuries among health-care workers is a significant concern. The scale of the problem underscores the importance of identifying new approaches to prevention.

During the 1990s, a substantial amount of research showed the effectiveness of two approaches to preventing MSDs in institutional health-care settings. One was to use patient lifting equipment, such as mechanical floor lifts and overhead ceiling lifts. The other was to have lifting policies such as lifting teams or "zero lift" policies. However, Ontario was slow to adopt patient lifting technology, constrained by limited capital investments in the health-care system, and by the greater priority to invest capital in patient care rather than in applications to protect the health of the health-care workforce.

In the provincial budget of May 2004, the Government of Ontario boldly changed the pace of adoption of patient lifting technologies in Ontario health-care institutions. It announced a commitment to invest $60 million in fiscal year 2004/05 with an additional $23 million in fiscal year 2005/06 to purchase and install patient lifting equipment in Ontario health-care institutions. This investment was expected to provide more than 15,000 new overhead lifts for use in chronic care and institutional long-term care facilities.

The Institute for Work & Health was selected to design and implement a comprehensive evaluation of the effects resulting from this large investment in caregiver health and well-being. A research team was assembled in partnership with scientists at the Toronto Rehabilitation Institute, the Centre for Research Excellence in Musculoskeletal Disorders (CRE-MSD) and the University of Western Ontario.

The Ontario Patient Lift Evaluation Study (OPLES) is designed to answer the following questions:

- Does lifting equipment prevent lifting-related injuries among health-care staff?
- Does lifting equipment improve or at least maintain the quality of patient/resident care?
- What is the return on the investment for the $83 million spent on the new patient lift equipment?

The OPLES team has recruited 50 long-term and chronic care institutions from among approximately 650 institutions participating in the initiative, which is overseen by the Ministry of Health and Long-Term Care. Within these 50 facilities, approximately 900 caregivers are participating in a baseline survey and a follow-up survey. The OPLES team is collecting information on institutional policies and practices in resident handling, which include questions on the following types of information:

- the facility's lifting policy
- caregiver training in resident handling and lift assist ergonomics

- caregiver awareness and knowledge of new lifts
- caregiver workload, including measures of physical and bio-mechanical demands
- psychosocial and work organization measures
- resident and caregiver ratings of quality of care and lift-related outcomes such as fall injuries and pressure wounds
- caregiver health outcomes including musculoskeletal pain, burnout and ratings of general physical and mental health.

The results from the evaluation, which will show the changes in musculoskeletal injury before and after the lifts, are expected in 2007.

The High Risk Firm Initiative

In 2004, the Ontario Ministry of Labour (MOL) announced it was setting an important objective: to reduce the number of workplace injuries in Ontario by more than 20 per cent by 2008.

This initiative, known as the High Risk Firm Initiative, is currently underway across the province. It includes three key elements:

- a doubling of the number of MOL inspectors
- a targeting of increased inspection and enforcement efforts on the two per cent of Ontario workplaces considered to be the "poorest performers," because they have the highest numbers of lost-time claims
- aligning the resources of Ontario's 14 Health and Safety Associations. They would focus their education and consultation services on another eight per cent of Ontario workplaces considered to be the next poorest performers (the "Last Chance" group)

Beginning in 2005, the Ontario Safety Association for Community & Healthcare (OSACH) provided intensive education and consultation to the 150 health-care and community organizations that comprised the "Last Chance" group. An important part of OSACH's efforts with these

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Ontario's investment in the High Risk Firm Initiative

The Institute for Work & Health estimates that, between 2004 and 2008, the Ontario government's High Risk Firm Initiative represents approximately $200 million in spending. Approximately half of this spending, or $25 million per year, covers enhanced inspection and enforcement efforts by MOL inspectors. Education and consultation services by the Ontario Health and Safety Associations represent an additional $25 million per year. Overall, this initiative is directing approximately 25 per cent of the $200 million annual budget of the Ontario prevention system to the 10 per cent of Ontario workplaces with the poorest health and safety performance.

firms is securing and sustaining management commitment to improve health and safety. CEOs of the selected organizations are expected to sign commitments to address health and safety program deficiencies identified through a management audit.

OSACH, along with the WSIB, has developed a user-friendly, web-based needs assessment tool. The tool is being used by OSACH consultants and WSIB account managers to identify occupational health and safety program needs and develop action plans, and track progress in achieving goals.

The High Risk Firm Initiative provides an unparalleled opportunity to evaluate the relative effectiveness of intensive inspection and enforcement, and of voluntary consultation and education, in improving occupational health and safety performance. This opportunity exists within the health-care sector as part of the larger Ontario labour market.

In alignment with our partner agencies who are also members of the Occupational Health and Safety Council of Ontario (OHSCO), the Institute for Work & Health has designed a comprehensive evaluation protocol to assess the impact of the High Risk Firm Initiative. This protocol will combine information from administrative records with data collected directly from a sample of firms targeted under the Ministry of Labour initiative.

This proposed evaluation project has two objectives: to understand clearly the economic returns from the $200 million investment over four years, and to understand the factors that support the sustainability of benefits over time.

The Centre for Research Expertise in Occupational Disease

Health-care workers face a myriad of hazards that may lead to disease, such as handling potentially toxic drugs, and exposure to infectious agents, allergens, radiation and chemicals.

Quality research is needed that identifies relationships between exposure to hazards and physical responses – especially for emerging diseases such as Severe Acute Respiratory Syndrome (SARS) and re-emerging diseases such as influenza, which could affect health-care workers. In addition, the

More information on health-care workers

The Ontario Safety Association for Community & Healthcare
www.hchsa.on.ca

The Ontario Safety Association for Community & Healthcare (OSACH) has a mandate to educate and support health-care and community services clients. It promotes the adoption of occupational health and safety (OHS) best practices and prevention strategies that prevent or reduce workplace accidents, injuries and occupational diseases. OSACH's activities include helping clients conduct needs assessments and develop strategies and implementation plans. In addition, it arranges training, provides information and develops forums for knowledge sharing among organizations. OSACH has partnerships with OHS training and certification providers, professional associations, information service providers, other safe workplace associations and government agencies.

The Occupational Health and Safety Agency for Healthcare
www.ohsah.bc.ca

British Columbia's Occupational Health and Safety Agency for Healthcare (OHSAH) has a goal of reducing workplace injuries and illness in health-care workers and of returning injured workers back to the job quickly and safely.

OHSAH was created in response to high rates of workplace injury, illness and time loss in the health-care industry. The agency's expertise is in occupational hygiene, ergonomics, aggressive behaviour, primary and secondary prevention, joint committee and worker education, and home care. OHSAH develops guidelines and tools, and conducts research with a strong commitment to evidence-based decision making and knowledge transfer activities.

The Canadian Health Services Research Foundation
www.chsrf.ca

The mission of the Canadian Health Services Research Foundation is to improve the health of Canadians by promoting and funding health services research. The Foundation aims to increase the quality, relevance and usefulness of research for policy-makers and managers. To achieve these goals, the Foundation also supports the synthesis, distribution and uptake of research results by managers and policy-makers in the health-care system. One of its priority areas is health management, which relates to improvements in workplace and work-life quality, and appropriate workloads for all workers.

occupational health and safety prevention system must be able to incorporate new information into prevention programs to protect the health of employees and the public.

Ontario's new Centre for Research Expertise in Occupational Disease (CREOD), which was created in 2004, is addressing these needs. CREOD, with its focus on the health-care sector, is helping build a research network to help understand and prevent occupational disease. CREOD's vision is the creation of sustainable "communities of practice" where research interests are balanced with the needs of workplaces and the prevention system. This vision is ideal for addressing the complex and dynamic occupational health research needs in health care.

CREOD recognizes that collaborative research involving researchers and prevention experts is integral to conducting research that improves the health of workers. An example of the strength of this approach was a CREOD workshop in the fall of 2005 on the link between occupational lung disease and occupational skin disease. The workshop brought together clinical and workplace-based researchers with clinicians and occupational health and safety prevention specialists to examine new and innovative hypotheses in understanding the occupational causes of allergic disease.

New and emerging challenges

Bringing occupational health and safety research into practice in health-care is a challenge. Joseline Sikorski, President and Chief Executive Officer of the Ontario Safety Association for Community & Healthcare (OSACH) explains that translating research into effective OHS practice is difficult across the sector, but is particularly a problem for the growing number of community health-care workers. These workers experience injuries at a higher rate than other health-care workers, who already are at significantly greater injury risk compared to workers in other sectors. Each home care setting is unique, and ensuring a safe work environment is a complex task where traditional solutions often do not work. OSACH's research partners, including IWH, CREOD and CRE-MSD, are undertaking efforts to understand and improve the implementation of prevention programs in nontraditional work settings such as home care.

Conclusion

High rates of injury, illness and work absence have been a feature of work in the health-care sector for too long. The social and economic costs of work-related disability borne by workers and health-care institutions are substantial. These costs also have direct impacts on their ability to deliver high quality and efficient health-care services.

Nurses and other workers in the health-care system are more likely to be absent from work due to illness than most other Canadian workers. In most provinces, health-care systems are struggling to cope with a shortage of nurses and other health-care providers. Creating and maintaining healthy workplaces will be a critical part of the solution if health-care providers are to

be successfully recruited and retained in the future. To address these challenges, the health-care system needs research that can help develop solutions to complex and unique problems. The research initiatives described in this report, such as the Patient Lift Program, High Risk Firm Initiative and the development of CREOD, provide examples of approaches that are part of the solution.

In addition, research agendas must be aligned with prevention system needs. Ontario's occupational health and safety prevention and research partners are working together to ensure that their goals are aligned. The Occupational Health and Safety Council of Ontario plays an important role in this process. The applied research and knowledge translation efforts of OSACH, CREOD, IWH and CRE-MSD are also crucial. Together, these efforts provide a foundation for sustainable, applied research programs to prevent costly occupational diseases and injuries within Ontario's health-care workforce.

Web sites for further information

Canadian Health Services Research Foundation www.chsrf.ca
Contains a health-care themed portal with research, resources and events related to improving health services workplaces and quality of work-life.

Canadian Institutes for Health Information www.cihi.ca
Has reports on the health of health-care workers. Will post results of a national survey of nurses' health in fall 2006.

Occupational Health and Safety Agency for Healthcare in British Columbia
www.ohsah.bc.ca
Contains resources such as posters and brochures, and links to current and completed research reports on health-care workers.

Ontario Safety Association for Community and Health Care (OSACH)
www.hchsa.on.ca
Contains a variety of products and resources, such as publications on prevention of workplace violence and MSDs, and health and safety orientation booklets for various health-care settings.

Register Nurses Association of Ontario (RNAO) www.rnao.org
Developed a Best Practices Guideline section on healthy work environments. Also includes a catalogue of health education fact sheets.

National Institute for Occupational Health and Safety www.cdc.gov/niosh
Contains a section on the health of American health-care workers, including infectious aerosols, shift work, blood-borne infectious diseases and allergies.

Canadian Centre for Occupational health and Safety (CCOHS) www.ccohs.ca
Includes papers on health-care settings and an electronic health and safety newsletter.

Ontario Hospital Association
www.oha.com
Through its Healthy Hospitals Initiative, has resources available on issues such as occupational exposure, back care and communicable disease protocols, among others.

Ontario Nurses Association (ONA)
www.ona.org
Includes publications about health and safety and violence in the workplace.

Occupational Safety and Health Administration, Washington D.C.
www.osha.gov
Has safety and health information for health-care facilities, nursing homes and personal care facilities, including best practices and legislation.

Worksafe BC www.worksafebc.com
Includes a section on Safety at Work for the health-care field. Contains prevention resources, references, courses, statistics and links to health-care sites.

Ontario Prevention Partners (hosted by the WSIB)
www.preventionbestpractices.org
Includes fact sheets, best practices and guidelines on various topics.

Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST)
www.irsst.qc.ca/en/home.html
Includes information on IRSST research on health-care workers, such as an analysis of an ergonomics prevention program among Quebec hospital caregivers.

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[9] Koehoorn M, Demers PA, Hertzman C, Village J, Kennedy SM. Work organization and musculoskeletal injuries among a cohort of health-care workers. IWH Working Paper 126, Toronto, ON.

staff

94 Total staff
14 New junior research staff
29 Adjunct scientists

students

10 PhD students
2 Postdoctoral students
2 Master's students
2 Completed PhDs

projects

70 Active projects
23 National/provincial project collaborations
17 International project collaborations
8 National/provincial policy advisory roles
13 International policy advisory roles

funding

$2,391,107 Research grant funding
$4,864,232 Workplace Safety & Insurance Board funding

presentations & publications

60 Articles in peer-reviewed journals
3 Completed systematic reviews on the effectiveness of prevention interventions
11 Book chapters
1 Book
12 Memberships on scientific journal boards
3 Editorships of scientific journals
177+ Presentations to conferences & professional groups

Auditors' report

We have audited the balance sheet of Institute for Work & Health as at December 31, 2005 and the statements of operations, net assets and cash flow for the year then ended. These financial statements are the responsibility of the organization's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the organization as at December 31, 2005 and the results of its operations and cash flow for the year then ended in accordance with Canadian generally accepted accounting principles.

Stern Cohen LLP

Chartered Accountants.
Toronto, Canada.
March 17, 2006.

Statement of Operations

For the year ended December 31,	2005 ($)	2004 ($)
Revenue		
Workplace Safety & Insurance Board of Ontario	4,864,232	4,864,232
Other (Note 6a)	2,391,107	1,565,529
Interest	37,018	24,428
	7,292,357	6,454,189
Expenses		
Salaries and benefits	5,495,684	5,064,854
Travel	102,422	141,872
Supplies and service	120,405	118,769
Occupancy costs	521,469	491,259
Equipment and maintenance	106,604	74,298
Publication and mailing	59,708	60,202
Voice and data communications	37,911	39,661
Staff training	59,038	45,633
Outside consultants (Note 6b)	385,158	88,528
Other	107,180	126,265
Amortization of capital assets	226,058	215,642
Amortization of deferred rent	(45,264)	(42,383)
	7,176,373	6,424,600
Excess of revenue over expenses for the year	115,984	29,589

See accompanying notes

Statement of Net Assets

For the year ended December 31,	2005			2004
	Invested in capital assets	Unrestricted (Note 6c)	Total($)	Total($)
Beginning of year	455,079	203,026	658,105	678,516
Excess (deficiency) of revenue over expenses for the year	(226,058)	342,042	115,984	29,589
Investment in capital assets	82,909	(82,909)	—	—
Awards to Foundation (Note 6f)	—	—	—	(50,000)
End of year	311,930	462,159	774,089	658,105

See accompanying notes

Statement of Cash Flow

For the year ended December 31,	2005($)	2004($)
Operating activities		
Excess (deficiency) of revenue over expenses for the year	115,984	29,589
Items not involving cash		
Amortization of capital assets	226,058	215,642
Amortization of deferred rent	(45,264)	(42,383)
Deferred revenue	814,156	(222,645)
Working capital from (required by) operations	1,110,934	(19,797)
Net change in non-cash working capital balances related to operations	(134,424)	10,885
Cash from (required by) operations	976,510	(8,912)
Investing activities		
Purchase of capital assets	(82,909)	(253,319)
Short-term investments	(323,069)	(25,859)
	(405,978)	(279,178)
Financing activities		
Awards to Foundation	-	(50,000)
Change in cash during the year	570,532	(338,090)
Cash		
Beginning of year	247,184	585,274
End of year	817,716	247,184

See accompanying notes

Balance Sheet

As at December 31,	2005($)	2004($)
Assets		
Current assets		
Cash	817,716	247,184
Short-term investments (Note 2)	931,628	608,559
Accounts receivable (Note 3)	428,099	397,288
Prepaid expenses and deposits	77,362	60,055
	2,254,805	1,313,086
Capital assets (Note 4)	311,930	455,079
	2,566,735	1,768,165
Liabilities		
Current liabilities		
Accounts payable	124,991	211,297
Deferred revenue (Note 5)	1,531,862	717,706
Current portion of deferred rent	45,264	39,503
	1,702,117	968,506
Deferred rent	90,529	141,554
	1,792,646	1,110,060
Net Assets		
Invested in capital assets	311,930	455,079
Unrestricted	462,159	203,026
	774,089	658,105
	2,566,735	1,768,165
Other information (Note 6)		

See accompanying notes

Approved on behalf of the Board:

Director Director

Notes to the financial statements

The Institute for Work & Health was incorporated without share capital on December 20, 1989 as a not-for-profit organization. The Institute is a knowledge-based organization that strives to research and promote prevention of workplace disability, improved treatment, optimal recovery and safe return to work. The Institute is dedicated to research and the transfer of research results into practice in clinical, workplace and policy settings. The Institute is predominantly funded by the Workplace Safety & Insurance Board of Ontario (WSIB) up to the Institute's approved WSIB budget. Other revenues are generated through research activities and certain interest earned.

1. Significant accounting policies

(a) Amortization
Capital assets are stated at cost. Amortization is recorded at rates calculated to charge the cost of the assets to operations over their estimated useful lives. Maintenance and repairs are charged to operations as incurred. Gains and losses on disposals are calculated on the remaining net book value at the time of disposal and included in income.

Amortization is charged to operations on a straight-line basis over the following periods:

Furniture and fixtures	- 5 years
Computer equipment	- 3 years
Leaseholds	- term of the lease

(b) Revenue recognition
The Institute follows the deferral method of accounting for contributions. Restricted contributions, which are contributions subject to externally imposed criteria that specify the purpose for which the contribution can be used, are recognized as revenue in the year in which related expenses are incurred. Unrestricted contributions, which include contributions from the WSIB, are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Revenue is excess of expenditures from fee for service contracts is recognized at the completion of the contract

(c) Lease inducements
The lease inducements, consisting of cash, are deferred and amortized over the term of the lease.

(d) Investments
Short-term investments are carried at cost.

2. Short-term investments

	2005($)	2004($)
GICs	**400,859**	225,859
Ontario Savings Bonds	**530,769**	382,700
	931,628	608,559
Estimated fair value	**947,000**	623,000

The GIC earns interest of 3.9% per annum and matures in 2009 and 2010. The Ontario Savings Bonds yield an average interest of 4.2% and mature in 2007 and 2008.

3. Accounts receivable

	2005($)	2004($)
The Foundation for Research and Education in Work & Health Studies	**53,646**	60,448
Other	**374,453**	336,840
	428,099	397,288

4. Capital assets

Cost ($)	Accumulated amortization ($)	Net **2005** ($)	Net 2004 ($)
Furniture & fixtures 589,715	480,746	**108,969**	171,892
Computer equipment 1,138,011	1,026,645	**111,366**	90,966
Leaseholds 503,131	411,536	**91,595**	192,221
2,230,857	1,918,927	**311,930**	455,079

5. Deferred revenue

The Institute records restricted contributions as deferred revenue until they are expended for the purpose of the contribution.

	2005($)	2004($)
NIOSH	35,536	102,916
CIHR	370,225	229,009
University of Maryland	66,225	–
SSHRC	19,182	45,849
CAN	68,064	57,081
Pfizer	124,509	–
CHSRF	3,789	38,094
Ontario Ministry of Health	495,141	77,771
University of Saskatchewan	34,231	–
WSIB-RAC	191,701	75,245
Other	123,259	91,741
	1,531,862	717,706

6. Other information

(a) Other revenue

	2005($)	2004($)
NIOSH	171,756	94,304
Pfizer	20,030	–
CIHR	466,472	485,863
HEALNet	–	21,693
SSHRF	26,667	33,792
OCHS	–	41,743
CAN	88,594	–
University of N.S.	72,000	–
CHSRF	34,305	–
Ontario Ministry of Health	274,544	116,806
WSIB-RAC	275,164	257,930
WSIB-Special	415,506	254,806
WSIB-Contract	378,691	–
University of Saskatchewan	32,539	32,473
University of Toronto	–	43,198
Other	134,839	182,921
	2,391,107	1,565,529

(b) Outside consultants

	2005($)	2004($)
University co-investigators	54,690	4,965
Other project-related services	303,032	40,046
Other services	27,436	43,517
	385,158	88,528

(c) Unrestricted net assets

Unrestricted net assets are not subject to any conditions which require that they be maintained permanently as endowments or otherwise restrict their use.

	2005($)	2004($)
Total assets	2,566,735	1,768,165
Invested in capital assets	(311,930)	(455,079)
	2,254,805	1,313,086
Liabilities	(1,792,646)	(1,110,060)
Unrestricted net assets	462,159	203,026

(d) Commitments

The Institute is committed under a lease for premises which expires July 31, 2009 with annual rents, exclusive of operating costs as follows:

	($)
2006	200,000
2007	200,000
2008	200,000
2009	116,000

(e) Pension

For those employees of the Institute who are members of the Hospitals of Ontario Pension Plan, a multi-employer defined benefit pension plan, the Institute made $268,402 contributions to the Plan during the year (2004- $268,009).

(f) Awards to foundation

The financial statements include the following balances and transactions with The Foundation for Research and Education in Work & Health Studies.

	2005($)	2004($)
Transactions		
Awards to Foundation	–	50,000
Balances		
Accounts receivable	53,646	60,448

(g) Financial instruments

The organization's financial instruments consist of cash, short-term investments, accounts receivable, and accounts payable. It is management's opinion that the organization is not exposed to significant interest, currency or credit risks arising from these financial instruments and the fair value of these financial instruments is approximated by their carrying value.

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Workplace Safety & Insurance Board

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Professor, Faculty of Nursing
University of Toronto

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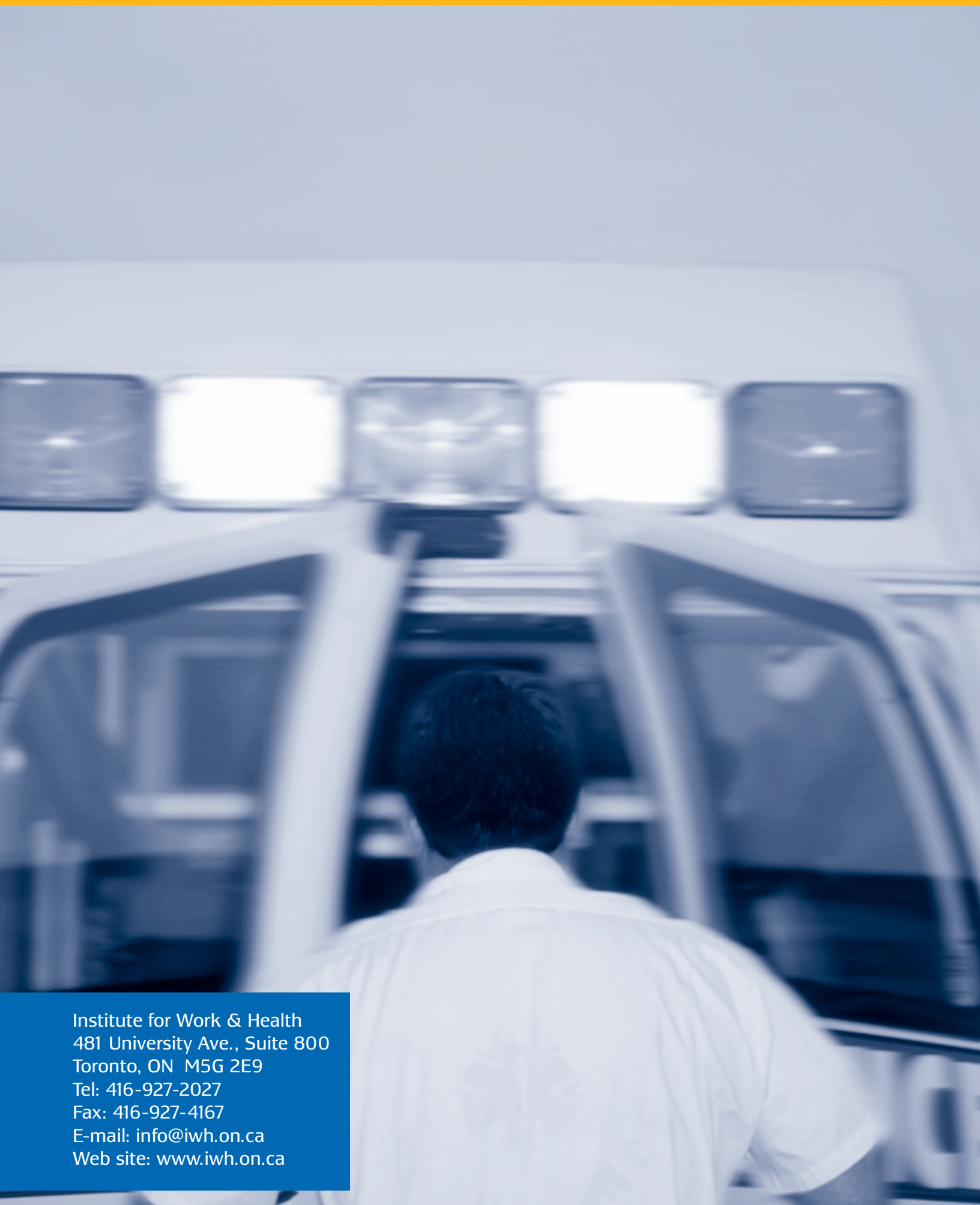

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