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Adequacy of COVID infection control and PPE linked to workers' mental health: study

Study conducted at start of COVID-19 emergency finds workers who felt safe at their worksites had better mental health than those who felt safety practices were inadequate

Adequate COVID-19 protections such as personal protective equipment (PPE) and workplace infection control protocols (ICPs) are linked to the mental health of workers. This is according to a new Institute for Work & Health (IWH) study of Canadian workers conducted in the spring of 2020—a second study to find such a link between workplace protection and workers' mental health in the first months of the pandemic.

The study, conducted jointly with the Occupational Health Clinics for Ontario Workers (OHCOW), found symptoms of anxiety and depression were highest among people who continued to go to work during the lockdown but felt none of their needed PPE and ICP protections were in place. In contrast, anxiety and depression symptoms were least prevalent among people who physically went to work but felt all the needed PPE and ICPs were available.

Notably, people who felt fully protected at their worksites had similar or even slightly better mental health compared to people who worked from home. Likewise, people who felt entirely unprotected at work had even poorer mental health than people who had lost their jobs since the start of the pandemic.

The study, accepted for publication in the *Annals of Work Exposures and Health,* was based on a survey developed by OHCOW, IWH and an ad-hoc pandemic survey group. The analysis compared anxiety and depression symptoms across three groups of workers. These were: people who worked remotely (42 per cent of the sample), people who were at work at their workplace (51 per cent of the sample) and people who had lost their job since the onset of the pandemic (seven per cent).

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IWH scientist recognized by pain society
Institute for Work & Health (IWH) Scientist **Dr. Andrea Furlan** received the Pain Excellence Award, given out yearly by the Pain Society of Alberta. The award, announced at the society's virtual conference in October, recognizes health-care providers who exemplify excellence in their clinical or academic practices. In awarding Furlan, the society cited her "positive impact towards patient care and delivery." For more on Furlan's work, see her bio page at: **www.iwh.on.ca/people/andrea-furlan**

IWH research associate wins presentation award
Kathleen Dobson, IWH research associate and PhD candidate at the University of Toronto's Dalla Lana School of Public Health, was given an award for a presentation she gave at the 2020 Canadian Academy of Psychiatric Epidemiology Scientific Symposium in October. Dobson received the Roger Bland Award for Best Oral Presentation by a Trainee for her presentation on her doctoral research on depression and employment earnings among working-aged Canadians. To see her bio, go to: **www.iwh.on.ca/people/kathleen-dobson**

Institute welcomes three new adjunct scientists
Three work and health researchers and frequent collaborators on Institute projects have been named IWH adjunct scientists. They are: **Dr. Lisa Engel**, a registered occupational therapist and an assistant professor in the Department of Occupational Therapy in the College of Rehabilitation Sciences at the University of Manitoba; **Dr. Rebecca Gewurtz**, an occupational therapist and associate professor in the School of Rehabilitation Science at McMaster University; and **Dr. Mahée Gilbert-Ouimet**, an associate professor of population health in the Department of Health Sciences at the Université du Québec à Rimouski. She holds a Canada Research Chair in Sex and Gender in Occupational Health. For more about their research interests, see their bios at: **www.iwh.on.ca/adjunct-scientists**

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What Research Can Do

Rapid COVID-19 testing a potential game-changer in worker protection

Early in October, Health Canada approved three rapid antigen detection tests (RADTs) for use in Canada to detect SARS-CoV-2. These rapidly developing technologies will change how we protect the health of workers in the next phase of COVID-19.

Rapid antigen testing detects specific proteins found on the surface of the virus. It differs from standard laboratory-based testing, which uses polymerase chain reaction (PCR) techniques that amplify small segments of genetic material in the virus. PCR tests require a health professional to collect a nasopharyngeal swab that is then sent to an accredited laboratory for processing.

Some jurisdictions in Canada are facing limitations in their PCR testing capacity. Most estimates suggest that the maximum number of PCR tests that can be administered and processed per day in Canada ranges from 80,000 to 90,000—less than half the optimal 200,000 tests per day recommended by the federal government.

These limitations result in uneven reporting of test results. For example, the Toronto Public Health currently processes about 40 per cent of tests within 24 hours, relative to its goal of 60 per cent. These limitations have also led Ontario to restrict access to PCR testing to people who are exhibiting symptoms of COVID-19 infection or asymptomatic people who live or work in specific settings.

Here's where RADTs will be important in the next phase of our response to this virus. Rapid antigen tests do not require administration by a health-care professional, can be administered at virtually any location (including workplaces), will typically provide an immediate test result (in 15-20 minutes), do not require laboratory processing facilities and have a much lower per-test cost (as low as $5.00). Some have likened COVID-19 rapid antigen tests to the convenience of over-the-counter pregnancy tests.

The federal government has contracted to procure enough test devices and materials to administer 200,000 rapid antigen tests per day for the remainder of 2020, and anticipates additional procurement in the months ahead. This federal procurement will triple the national capacity to provide COVID-19 testing.

What's the catch? There are two concerns. First, RADTS may not be as accurate as laboratory PCR testing. RADTs generate more 'false negatives' than PCR tests. (A false negative occurs when a test fails to identify an actual COVID-19 infection and incorrectly delivers a negative result.) Out of 100 COVID-19 infections detected by a PCR test, a typical RADT will miss about seven of these. However, our understanding of the performance of RADTs is improving rapidly. Increasing evidence indicates that RADTs and PCR tests are equally accurate in the detection of infections among asymptomatic people in the first five to six days following infection onset, when viral loads are highest and the risk of person-to-person transmission is greatest.

The second concern is the complicated challenge of integrating the administration of workplace-based rapid antigen testing into public health surveillance programs. Dr. David Naylor, a leader of Canada's COVID-19 Immunity Taskforce, notes that antigen tests will have a place in screening for infection: "More rapid on-site testing strategies will be a game-changer... What we're talking about are rapid tests that can be done on-the-spot for screening of asymptomatic people in contexts like schools or worksites with a view to getting results in minutes, not hours or days." A positive RADT result in a worker would be a priority for confirmation by a lab-based PCR test and for initiating contact tracing within both the workplace and the community.

What might we see in the near future as rapid antigen testing is used to monitor COVID-19 infections in Ontario workplaces? Health Canada has offered some initial tentative perspectives on the use of RADTs for the monitoring of asymptomatic people in high-risk settings, suggesting priorities could include the repeated testing of workers in remote work areas to prevent the introduction or minimize the spread of infection, repeated testing of inmates and workers in correctional facilities, and regular testing of workers in high-risk

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Depressive symptoms in people with arthritis linked to lower employment rates

Consistent patterns of work disability found among people with both arthitis and depressive symptoms, in nationally representative U.S. sample

Among working-age adults with arthritis in the United States, about one in eight also experiences depressive symptoms, according to a new study by the Institute for Work & Health (IWH).

Having both arthritis and depressive symptoms is associated with a higher risk of work disability, particularly for people in the middle of their earning years, the study also found. For this middle-aged group (ages 35 to 54), having depressive symptoms in addition to arthritis can lower the likelihood of working by 17 per cent.

"We know from research to date that people with arthritis face challenges finding and keeping a job. We also know that depression is common among people with arthritis," says IWH Scientist Dr. Arif Jetha, lead author of the study published in July in the journal *Arthritis Care & Research* (doi:10.1002/acr.24381). "This study shines a light on what having both arthritis and depressive symptoms means to people's ability to participate in the workforce."

Dr. Arif Jetha

The study drew on four years (2013 to 2017) of data from the National Health Interview Survey, conducted by the U.S. National Center for Health Statistics. The study focused on the nationally representative sample of more than 11,000 working-age adults (ages 18 to 64) in the U.S. who reported a diagnosis of arthritis (including rheumatoid arthritis, gout, lupus and fibromyalgia).

The study found about 13 per cent of adults with arthritis also report depressive symptoms. That's higher than the prevalence rate of five per cent of adults without arthritis who report depressive symptoms, according to an earlier analysis of the same dataset, conducted by members of the research team.

The study examined employment among people with arthritis—with and without depressive symptoms. It found lower levels of employment in those experiencing depressive symptoms, a pattern that was consistent across different demographic, social and health characteristics (see chart).

"Because we used a nationally representative survey, the patterns of work participation we see in the study are generally representative of the adult population living with arthritis in the U.S.," says Jetha.

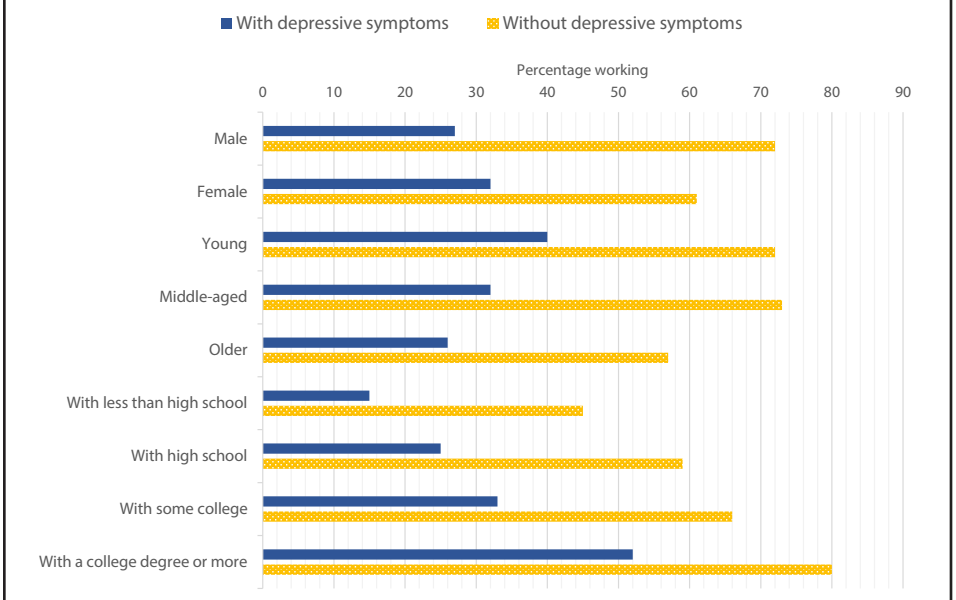
Looking across age groups, the team found higher levels of employment among younger adults with depressive symptoms (40 per cent) than older age groups with depressive symptoms (32 per cent among middle-aged adults and 26 per cent among older adults).

When taking into account all other factors, the team found the adverse effect of having arthritis and depressive symptoms was strongest on middle-aged people, who were 17 per cent less likely to work than those with arthritis but without depressive symptoms. The adverse effect was only borderline significant for younger adults and not statistically significant among older adults.

"The impact that arthritis and depressive symptoms have on middle-aged people is not a surprise," says Jetha. "The work-life balance research to date suggests that people in this age group who also live with a chronic disease tend to face challenges in engaging in multiple different roles."

The study findings point to the need for greater access to mental health services for people diagnosed with arthritis, Jetha notes. "Given the importance of employment as a social determinant of health, these findings highlight that providing mental health care can address work disability among people with arthritis."

DIFFERENCES IN WORK PARTICIPATION AMONG PEOPLE WITH ARTHRITIS



COVID-19: Challenges, opportunities in OHS and social security highlighted at world forum

Despite diverse experiences, participants raised common concerns at virtual global conference, co-hosted by IWH, CCOHS and other organizers of 2021 World Congress

In early October, the global community of occupational health and safety (OHS) and social security policy-makers gathered virtually to discuss challenges and lessons learned as countries have responded to the COVID-19 pandemic emergency. The Special Session on COVID-19 and OHS was hosted by the organizers of the XXII World Congress on Safety and Health at Work, a global event taking place September 19-22, 2021, in Toronto. The organizers include the International Labour Organization (ILO) and the International Safety and Security Association (ISSA), as well as the Canadian co-hosts, the Institute for Work & Health (IWH) and the Canadian Centre for Occupational Health and Safety (CCOHS).

ILO Director-General Guy Ryder opened the special session along with Canada's Minister of Labour, the Honourable Filomena Tassi. Ryder spoke of the urgent need for concerted action in the COVID-19 crisis to ensure that worker health and safety are front and centre in national responses to the pandemic, and for social security systems to be strengthened so that workers do not have to choose between life and livelihood. He emphasized that protecting workers, labour rights, businesses and livelihoods must be a global priority throughout the current and future phases of the pandemic.

Countries around the world are grappling with very similar problems, albeit with disparate resources and different policy options. These common challenges provided the potential for rich exchange and learning across nations. That was on display at the October 5-6 virtual event, which had more than 4,500 policy-makers and practitioners in OHS and social security from over 150 countries registered to attend.

The special session was organized along the three themes of the World Congress: innovations in addressing long-standing OHS challenges; implications of the changing world of work for OHS; and advancing a culture of prevention. Below are some topics and issues that resonated throughout the session.

Occupational health and safety in the spotlight

Countries around the world are coming to the realization that economic recovery depends on effective workplace protections against COVID-19 infection. In certain regions, the demand has been at an all-time high for technical guidance from the ILO on measures to keep workplaces safe, said Vinicius Pinheiro, Regional Director, Latin America and the Caribbean at the ILO.

Salima Admi, Director of Labour, Ministry of Labour and Professional Integration, Morocco, described the COVID pandemic having accelerated the ratification of the ILO convention on OHS in her country. And speaking of the employer members in Belgium's Federation of Enterprises, Senior Advisor Kris De Meester described a growing respect for OHS professionals. He also noted the flexibility and creativity with which OHS practitioners have adapted and applied sectoral guidance from state authorities.

Speakers also highlighted the importance of the culture of prevention as they described examples of workplaces adapting to rapidly changing guidance. Workplaces entering the pandemic with a strong culture of prevention—characterized by a culture of learning, mutual trust, worker participation and a disciplined approach to OHS—were better able to quickly develop safety practices and adjust them in response to evolving public health guidance. In Canada, examples of such successes were seen in the auto sector, where management and labour worked together during the initial two-month shutdown to develop safety practices for COVID-19 prevention, said IWH President Dr. Cameron Mustard.

Looking ahead, strong public messaging about the value of workplace health and safety may be needed to head off fatigue and non-compliance, similar to what public health agencies are encountering in a growing number of countries, said Dr. Edlyn Hoeller, Deputy Director-General, German Social Accident Insurance. Work accident insurers should send a clear message that health and safety is not a barrier to commercial success, but the foundation of such success. "After all, who can be a more credible advocate for safety and health than the institutions that know the cost of not doing enough?" she said.

Social security more crucial than ever

Presenters at the session highlighted the severe distress and suffering people in many countries are experiencing. They spoke of the pandemic laying bare the inadequacies of injury compensation, unemployment insurance and health-care insurance systems in many countries—and the growing recognition that strengthening such systems is a crucial part of the response to the coronavirus.

Some speakers gave examples of governments taking steps to fill in the gaps. ISSA President Joachim Breuer invited participants to visit the COVID Monitor (**www.issa.int/coronavirus/country-measures**), a compilation of about 1,600 social security measures that have been adopted or expanded in 208 countries and territories to address the health, social and economic impact of the crisis. However, he noted the shortage of such measures in countries with fewer resources. With a note of caution about a deepening cleavage between the have and have-not countries across the globe, Breuer called for international cooperation to help developing countries build better social security with broader coverage.

The gaps in social security coverage are many. Several panellists noted the size of the informal sector in their countries and the

RAPID TESTING (CONT'D)

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settings such as long-term care facilities and large food processing facilities.

Following the Health Canada licensing of RADT products, Canadian airline company Air Canada has ordered 25,000 coronavirus testing kits to be administered to employee volunteers. Other large employers in critical infrastructure sectors may also independently procure RADTs to assure employees and customers/clients.

Rapid antigen tests may also be used in other settings that may help reduce worker exposure, such as schools and urban transit systems. And we might anticipate an important use of RADTs in quickly evaluating the infection status of workers in workplaces where public health officials or occupational health and safety regulators suspect COVID-19 transmission.

The use of RADTs in the workplace gives rise to important questions. Who administers tests in the workplace? Which workers get them? Who gets the results? How are the results used? How are results integrated into the public health surveillance system? With due consideration of these issues by policy-makers and workplace parties, rapid antigen testing may be key in rebuilding the economy while keeping workers safe.

— Dr. Cameron Mustard, President and Senior Scientist, Institute for Work & Health

resulting exclusion of very large numbers of workers from regulatory protection and benefit programs. Some speakers highlighted the need to develop national and international labour standards for domestic work, maritime work and other sectors for which standards currently do not exist. Others focused on the challenges facing migrant workers for whom job loss also entails a loss of residency status, and called for an alignment between immigration or visa policies and labour policies.

Innovation by insurance providers

Several speakers commented on the agility with which insurance providers have had to respond to the needs of the moment. Not least was the challenge to migrate service delivery to online platforms. Speakers described innovations that some have adopted, from paperless claim submissions to video mediation hearings. From the Republic of Korea, Dong-Heon Kim, IT Director, Korea Workers' Compensation & Welfare Service, outlined the transformation of the organization's service delivery to online platforms. "We accomplished in two months what would otherwise take two years," he said.

Beyond operational issues, many insurance providers have also taken steps to amend coverage policies in response to emergency needs. One Canadian example was highlighted by Saskatchewan WCB CEO Phillip Germain. Within days of the emergency being declared in Canada, the agency adopted measures to encourage the reporting of COVID cases by offering cost relief to employers for COVID-19 claims; cost relief was also provided to injury claims that were extended due to a lack of health care or modified work options.

In Malaysia, the pandemic emergency has provided momentum to a government campaign to encourage informal workers to register for social security coverage. This initiative is expected to net benefits in the long term, said Dr. Azlan Darus, Division Head, Prevention, Medical and Rehabilitation at Malaysia's Social Security Organization.

A coming challenge for insurance providers will be addressing the mental health of workers, participants stressed. Early evidence indicates that certain demographic groups may have greater difficulty in remote work situations than others, and the potential psychological toll on workers and their managers should not be underestimated.

Value of multilateral, tripartite approaches

According to information provided by the ILO, in the first three months of the global pandemic, more than 130 of the 187 ILO member countries adopted bipartite or tripartite approaches in their responses. Speakers emphasized the value of social dialogue and of partnerships involving governments, businesses and workers.

Some also highlighted the importance of worker participation at the organizational level and the need to strengthen worker voices, especially among vulnerable workers. Employer representatives at the session also underlined the importance of governments giving leeway to workplaces to adapt public health directives to their circumstances.

In Canada, both the worker and employer representatives at one of the panels agreed that a commitment to dialogue and tripartite relationships was a key element in the country's response to the pandemic.

Even prior to the pandemic, "we had some good examples of worker, employer and government representatives working together to make sure health and safety is protected, and we need to look to those and build on those," said Tara Peel, National Representative, Health, Safety & Environment, Canadian Labour Congress.

Derrick Hynes, President and CEO of FETCO (Federally Regulated Employers – Transportation and Communications) spoke of similar examples. "Within my membership, I have heard many stories of highly productive joint labour-management responses to this crisis," he said.

Video recordings of the special session presentations are available on the World Congress website. To see the recordings, go to: **www.safety2021canada.com/session-recordings**

Cochrane back group earns high praise for its rigorous systematic reviews

Cochrane Back and Neck, housed at IWH until this year, has repeatedly ranked high in quality assessments and measures of impact

About eight in 10 Canadians are expected to experience low-back pain at some point in their lives. The condition is one of the top causes of work disability and one of the costliest musculoskeletal problems in Canada and other industrialized countries.

That may be one of the reasons for the strong interest in Cochrane Back and Neck (CBN)'s research syntheses on low-back pain treatments and management strategies, says Dr. Andrea Furlan, scientist at the Institute for Work & Health (IWH) and co-ordinating editor for CBN.

Formed in 1996 and housed at IWH until this year, CBN is one of 53 review groups that make up Cochrane, a global network of researchers, health practitioners and patients who promote evidence-informed health decision-making by producing high-quality, relevant, accessible systematic reviews and other research syntheses.

In 2018, CBN ranked fourth among the 53 groups for the number of reviews accessed in the Cochrane Library. It ranked eighth among the 53 review groups in impact factor—i.e. the number of times articles from the previous two years were cited in a year—according to a 2018 journal citation report.

"The high number of citations may be due to the high quality of our reviews," says Furlan, who recently published an article in the journal *Spine* (doi:10.1097/BRS.0000000000003626) looking back at the review group's achievements over the years. In spring 2020, due to a lack of funding for the group in Canada, the editorial base of CBN was transferred to the Cochrane Musculoskeletal Group in Australia. Furlan remains on the group's editorial board.

In the article, Furlan references several external assessments of systematic reviews that held CBN reviews in high esteem. One such assessment examined the accuracy of systematic review abstracts in low-back pain research and found "some form of spin" in eight out of 10 reviews. The exceptions noted in the *Journal of Orthopaedic & Sports Physical Therapy* article were CBN reviews, which had "substantial to almost perfect agreement" between the abstracts and the full text.

Dr. Andrea Furlan

Another example was a paper that assessed the quality of all reviews on the effectiveness of exercise for back pain. Out of 38 reviews—including five from CBN—most were found to be of low or critically low quality. Of the 38, one was judged to be moderate quality and three to be high quality. All four were CBN reviews. "Cochrane reviews typically use more rigorous methods and, consequently, are less vulnerable to bias and generally more conservative in their conclusions," wrote the authors in the May 2020 issue of the *Brazilian Journal of Physical Therapy*.

COCHRANE BACK AND NECK'S FIVE MOST-CITED REVIEWS

Cochrane Back and Neck reviews have been cited in 35 clinical practice guidelines from January 2017 to March 2019. The five most-cited are:

1. Exercises for mechanical neck disorders (cited in 10 guidelines)
2. Red flags to screen for vertebral fracture in patients presenting with low-back pain (cited in seven)
3. Multidisciplinary biopsychosocial rehabilitation for chronic low-back pain (cited in seven)
4. Massage for low-back pain (cited in six)
5. Opioids compared to placebo or other treatments (cited in six)

"We were pleased to have an external group assess our reviews as high quality, relevant and generally better than other, non-Cochrane, reviews," says Furlan. "We were not entirely surprised, though, because we take very seriously the job of doing a systematic review."

Furlan notes that Cochrane reviews have become the document upon which policymakers, health authorities and guideline developers base their decisions—such as decisions on whether to fund or defund interventions. "That's why we conduct these reviews with such scrutiny," she adds.

CBN reviews were incorporated into 35 clinical practice guidelines between January 2017 and March 2019 (see sidebar). Such guidelines help health practitioners and patients make decisions about appropriate health care for specific clinical circumstances related to back and neck pain.

CBN's rigorous methods have also been widely adopted as standards in the field. CBN's guidelines for conducting systematic reviews related to spinal disorders have been updated three times since they were first published in 1997, with the latest update published by Furlan in 2015. The method guidelines offer recommendations on review steps such as defining the scope of the review, assessing the literature and conducting statistical analyses.

"The guidelines have been so well-received that, although they were developed for CBN reviewers, they have been widely used and cited both inside and outside Cochrane," says Furlan.

"Part of the credit for Cochrane Back and Neck's achievements goes to the support and expertise at IWH, which has a systematic review program that continues to tackle new methodological challenges," she adds. "It also goes to IWH's knowledge transfer and exchange department, for bringing together collaborators and experts from a variety of disciplines to conduct systematic reviews that are meaningful to stakeholders."

Socioeconomic gaps in early mortality widening over two decades: study

Despite overall decline, early death rate differences have widened beween people with high and low income and education

Although death rates have fallen across all socioeconomic groups in Canada, inequalities in premature mortality—or death below the age of 75—have widened between people with the highest and lowest earnings and education levels over the period between 1991 and 2016, a new study has found.

The study was authored by Dr. Faraz Vahid Shahidi, an Institute for Work & Health (IWH) Mustard post-doctoral fellow. It was published in September 2020 in the *Canadian Medical Association Journal* (doi:10.1503/cmaj.191723).

The study found that, in 1991, men in the group with the lowest income were 2.1 times more likely than men in the highest income group to die early; by 2016, that difference had widened to 2.8 times more likely.

The widening gap was even more noticeable for women. In 1991, women with the lowest income had 1.7 times greater risk of premature mortality than women with the highest income; by 2016, that greater risk had grown to 2.5 times more likely.

A similar pattern was found when it came to education levels. Among those without a high school degree, the risk of early death compared to those with a post-secondary degree increased from 2.0 to 2.6 for men and from 1.8 to 2.3 for women over the same 1991 to 2016 period.

The findings were not altogether surprising as similar patterns have been reported in the United States and many European countries, says Shahidi.

"Within the context of declining overall mortality rates, what we asked was, are gains in years lived accruing to some socioeconomic groups more than others?" says Shahidi. "If we believe that health equity is a moral good and a policy priority, then we ought to document whether progress has been made towards reducing mortality inequalities over the last few decades. On balance, our findings suggest that we have made little progress."

Inequalities growing

Shahidi's team conducted the study using a data linkage between the Canadian Mortality Database and five cycles of Statistics Canada's Canadian Census Health and Environment Cohorts (1991, 1996, 2001, 2006 and 2011). The team focused on early deaths, as opposed to all deaths, in order to avoid what's called "survivorship bias."

"The term 'survivorship bias' refers to the general finding that people who survive into older adulthood represent a highly selected group of healthy individuals. This type of selection is particularly strong at the lower end of the socioeconomic spectrum and can therefore lessen the extent of health inequalities observed among the oldest age groups," says Shahidi.

In their analysis, the team examined differences in death rates across four groups broken down by levels of education (less than a high school degree, a high school degree, some post-secondary education and a post-secondary degree) and five groups broken down into quintiles (i.e. 20 percentiles) based on household income.

In absolute terms, the team saw inequalities narrow between higher and lower income men but widen between higher and lower income women. Gaps across levels of education also widened for both men and women. The difference in early death rates between people with a post-secondary degree and people with no high school degree increased: from 792 deaths per 100,000 in 1991 to 1,119 per 100,000 in 2011 for women and from 1,713 per 100,000 in 1991 to 1,843 per 100,000 in 2011 for men.

The educational differences are starker, Shahidi explains, because of rising levels of education in the population during that time. "To lack a high school diploma today means something very different from what it meant in 1991. On average, it's a much more severe marker of disadvantage now than it was 30 years ago."

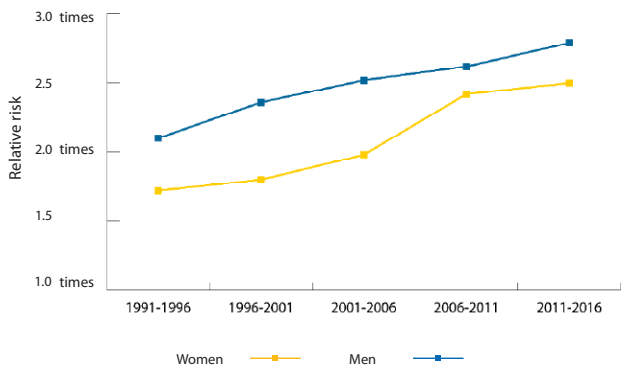
Indeed, Shahidi notes, for those with less than high school education—who made up 35 per cent of the sample in 1991 but only 14 per cent of the sample in 2011—absolute mortality rates stagnated among men and rose among women.

"It's bad enough that we see stagnation in the last decade and a half among men. Even more concerning, however, is the rise in premature mortality observed among socioeconomically disadvantaged women," says Shahidi.

He adds that these adverse trends are likely related to broader societal trends occurring at the time, including rising levels of income inequality and declining social safety nets.

EARLY DEATH RATES AND EDUCATION

Risk of early mortality for women/men with less than a high school degree, compared to women/men with a post-secondary degree



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Surveys measured workers' depression, anxiety levels in pandemic's early months

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The findings reinforce the importance of PPE and ICPs—not only to prevent COVID-19 transmission but also to safeguard workers' mental health, says IWH Senior Scientist Dr. Peter Smith and lead author of the journal article.

"This pandemic has taken a toll on people's mental health—whether due to prolonged isolation or financial distress or fears of infection," says Smith. "One way that workplaces can minimize the risks of anxiety and depression for workers is to offer those who have to come to work the equipment and protocols they need to stay safe from COVID. That's a message that is just as important now, as case numbers are once again on the rise, as was the case in the spring."

Online surveys shared by labour networks

The survey at the heart of this study was one of two sent out by OHCOW and a network of labour organizations from April to June 2020. Both were focused on understanding the experiences of different groups of workers during the early stage of the COVID-19 pandemic. The first survey was designed for health-care workers and drew almost 6,000 participants. Findings from that survey were published in September in the *Canadian Journal of Psychiatry* (doi: 10.1177/0706743720961729).

The second survey, designed for workers outside the health-care sector, was completed by more than 3,500 participants. They were asked four questions from two widely used anxiety and depression clinical screening tools. From the Generalized Anxiety Disorder screener, they were asked how often they felt nervous, anxious, on edge or not able to stop worrying. From the Patient Health Questionnaire-2 screener, they were asked how often they felt little interest or pleasure in doing things or felt down, depressed or hopeless. In the analysis, the research team focused on the share of respondents whose scores were above the accepted threshold for clinical screening of anxiety and depression.

Respondents who worked on-site were asked to gauge their need for 10 different types of PPE, which included gloves, eye protection, face shields, gowns or coveralls, surgical masks, N95 masks and respirators. They were also asked about 14 different ICPs, including increased ventilation, installation of plexiglass or other barriers, isolation of people, physical distancing from customers, physical distancing from co-workers and frequent cleaning. Participants were also asked about the adequacy of the PPE and ICPs they said they needed.

The study found that the group working on-site with all needed protection had similar, if not slightly better, mental health levels as those working from home. Anxiety and depression symptoms were reported by 35 per cent and 27 per cent of remote workers respectively; they were reported by 30 to 34 per cent and 23 to 25 per cent of on-site workers with all their needs met.

More noteworthy were the anxiety and depression levels among people who said they had no protection at their physical worksites. With 52 per cent and 46 per cent reporting anxiety and depressive symptoms respectively, this group even had significantly poorer mental health than people who had lost their jobs since the start of the pandemic. In this latter group, anxiety and depression levels were experienced by 44 per cent and 36 per cent of respondents, respectively.

"It's worth noting that we saw a significant amount of fear, stress, concern, depression and anxiety among workers," says Smith, adding that the study design does not allow the team to pinpoint whether people are stressed out over their financial situations, their children's schooling or their safety at work.

"As more and more Canadians return to the workplace, this study suggests that the adequacy and effectiveness of COVID-19 infection procedures have important implications, not only for reducing COVID-19 rates, but also for the mental health of the workforce," he adds.