Health Reports

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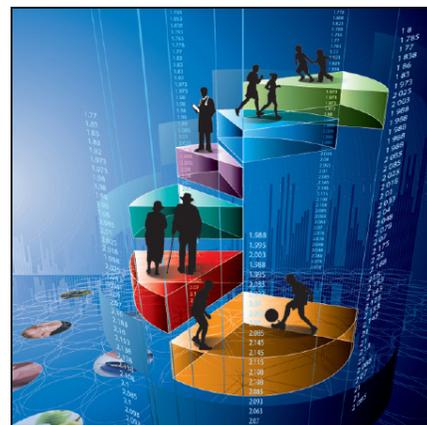
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ABSTRACT

Background
There are important information gaps concerning the prevalence and distribution of infection control practices (ICPs) within workplaces continuing to operate during the COVID-19 pandemic.

Data and methods
To address these gaps, this paper examines the prevalence of workplace ICPs among employed respondents to Statistics Canada's Labour Force Survey in the months of July, August and September 2020 (n = 53,316). The article also seeks to identify sociodemographic, occupational and workplace factors associated with the level and type of workplace ICPs. ICPs included the reorganization of the workplace to allow for physical distancing, increased access to hand sanitizer or handwashing facilities, enhanced cleaning protocols and access to personal protective equipment. Multivariable regression models were used to examine the number of ICPs in place and the absence of specific ICPs.

Results
Generally high levels of reported protections among workers (15% of the sample had three ICPs and 72% had four or more ICPs) were observed. However, certain subgroups of workers were less likely to have ICPs in place. These included workers who were male; those with lower levels of education, shorter job tenure, or non-permanent work; and those working in the agricultural, construction, transportation and warehousing, and education industries.

Interpretation
In a large sample of Canadian employees, generally high levels of workplace ICPs to reduce the transmission of COVID-19 were observed. Groups with lower levels of ICPs included workers at the start of their employment, workers with low levels of education, and certain industry groups.

Keywords
Infection control; COVID-19; Workplace; Social distancing; Hand disinfection; Personal protective equipment; Vulnerable populations; Canada

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What is already known on this subject?

- While the workplace has been identified as a potentially critical setting for COVID-19 transmission, there remain large information gaps concerning the type and amount of infection control practices (ICPs) in place within workplaces which continue to operate, and whether there are differences in ICPs across socioeconomic, occupational or workplace groups.

What does this study add?

- In a sample of paid employees who worked most of their hours outside the home in the period between July and September 2020, this study showed generally high levels of self-reported ICPs at the workplace.

- However, certain subgroups of employees were less likely to have ICPs in place. These include workers who were male; those with lower levels of education, shorter job tenure, non-permanent work; and those working in the agricultural, construction, transportation and warehousing, and education industries.

- Groups with higher levels of ICPs included employees in the retail trade and accommodation and food service industries, and employees whose employers have multiple locations or who provide workers with the option of working part or all of their hours at home.

The COVID-19 pandemic is having profound impacts on the nature and availability of work globally.[1, 2] As part of the public health response to COVID-19, governments across Canada closed non-essential workplaces. This has resulted in large numbers of workers moving to remote work, while others have lost their jobs or had their hours greatly reduced.[3,4] Amid these changes, there also remains a sizable number of Canadians who are still working at the worksite, many of these jobs involving interactions with coworkers and the public. By virtue of being at the worksite, these workers are at increased risk of being exposed to COVID-19, compared with workers who can work from home, with additional variation in risk related to characteristics associated with different occupations and also with increased risk of COVID-19 (e.g., contact with the public).[5]

While the workplace has been identified as a potentially critical setting for COVID-19 transmission,[6] there remain large information gaps concerning the type and amount of infection control practices (ICPs) in place within workplaces that continue to operate, and whether there are differences in ICPs across socioeconomic, occupational or workplace groups. Publicly available surveillance data including all COVID-19 cases in Ontario indicate there were more than 16,000 COVID-19 cases attributed to workplace outbreaks, outside of health care, education and congregate living settings, within the first year of the COVID-19 pandemic.[7] Further, inadequate levels of ICPs at the workplace have been associated with higher levels of anxiety, among both health care and non-health care workers.[8,9] As such, understanding the distribution of ICPs across representative samples of workers is important.

The objective of this paper is to examine the prevalence of different workplace-based ICPs among employed Canadians who spent the majority of their work hours at the workplace between July and September 2020 and to examine demographic, occupational, and workplace factors associated with the number of ICPs and absence of particular types of ICPs.

Data and methods

Data for this paper comes from Statistics Canada's Labour Force Survey (LFS) and a specific Supplement to the LFS conducted between July and September 2020. The LFS follows a complex, rotating panel sample design to efficiently estimate monthly changes in the Canadian labour force.[10] Respondents to the LFS are interviewed each month, for six consecutive months, with one-sixth of the sample being replaced each month. Starting in April 2020, in response to the COVID-19 pandemic, an LFS Supplement was created to collect information on working arrangements, including working remotely and site-based work.[3] The LFS Supplement was administered to a subsample of LFS respondents in all Canadian provinces (i.e., excluding the territories). Specific questions on workplace protections were included in the LFS Supplement for the months of July, August and September. In each of these months, the sample for the LFS Supplement consisted of five of the six rotation groups in the LFS. The rotation group excluded was respondents who were answering the LFS for the last time in each month. In total there were 201,243 labour force participants who responded to the Supplement across the three survey months (July N = 63,719; August N = 67,179; September N = 70,345). Questions on working arrangements were asked of all respondents who were aged 15 to 69 who were currently working and who are not members of the regular Canadian Armed Forces (N = 77,907). Of these 77,907 responses between July and September, 50,096 (64.3%) were from respondents who had worked at a fixed location outside the home in the previous week, and 10,237 (13.1%) from respondents who had

Table 1
Distribution of infection controls in the workplace, among employed labour
force participants, July, August and September 2020

	Employed labour force participants (N = 53,316)		
		95% Confidence interval	
Variable	percent	from	to
Type of workplace protection			
Physical distancing	83.83	83.25	84.41
Personal protective equipment	87.93	87.40	88.45
Handwashing	91.31	90.86	91.75
Cleaning	85.55	84.98	86.12
Other	4.36	4.06	4.66
Number of protections in place			
0	2.11	1.89	2.33
1	5.08	4.74	5.43
2	5.90	5.55	6.25
3	14.96	14.45	15.47
4 or more	71.95	71.20	72.70

Source: Labour Force Survey, July, August and September 2020.

worked outside the home with no fixed location in the previous week. From this sample of 60,333 responses, respondents who were self-employed (N = 7,017) were removed, leaving 53,316 responses from paid employees, which represents the analytical sample for this paper.

Main outcome: Workplace infection control practices

Each respondent was asked about ICPs in place at their workplace to reduce the risk of exposure to COVID-19. Questions included workplaces or work practices being reorganized to allow for physical distancing (e.g., installation of protective screens, shifts reorganized, controlling the number of customers); access to personal protective equipment (PPE) (e.g., masks, face shields, gloves, gowns); increased access to hand sanitizer or handwashing facilities; enhanced cleaning protocols; and other protections. Respondents could also specifically respond that no measures were in place. Given potential differences in the effectiveness of each type of ICP in reducing the risk of COVID-19,[11] each specific ICP was first examined as a separate outcome. Respondents were also grouped into the following categories: those with four or more ICPs, those with three ICPs, those with two ICPs, and those with none or only one ICP.

Covariates

Covariates included measures across three broad domains: sociodemographic characteristics, occupational characteristics, and workplace characteristics.

Sociodemographic characteristics were selected based on factors previously associated with differential risk of work injury or risk of COVID-19. These included age; sex/gender; immigrant status (Canadian born, immigrated before 2010, immigrated between 2010 and 2015, immigrated since 2015); race (White, Black, other racialized group, Indigenous); marital status (married or common-law; divorced, separated or widowed; never married); whether the household included children younger than 6 years old (yes or no), aged 6 to 12 (yes or no), and aged 13 to 18 (yes or no); education level (less than

secondary education, secondary education, postsecondary completion below bachelor's degree, bachelor's degree and higher). Sociodemographic characteristics also included province of residence and population density (living in an urban core in a census metropolitan area [CMA] or census agglomeration [CA]; living outside an urban core, but within a CMA or CA area; or living outside a CMA or CA). For an area to be classified as a CMA, it must have a total population of 100,000, of which 50,000 or more must live in the core. For an area to be classified as a CA, it must have a core population of at least 10,000.

Occupational characteristics included whether the respondent was employed by a public or private employer, was a member of a union or part of a collective agreement, worked full-time or part-time, had a permanent job, had varying hours of work each week, had more than one job, and the length of the respondent's current job tenure (6 months or less, 7 to 12 months, 1 to 2 years, 3 to 5 years, more than 5 years). Information was also collected on the estimated hourly earnings, which were grouped into five categories (less than $15 per hour, between $15 and $19.99 per hour, between $20 and $24.99 per hour, between $25 and $34.99 per hour, and earning $35 or more per hour). Using the O*Net classification system, this study also identified occupations who worked indoors in a non-environmentally controlled environment once a week or more.[12]

Workplace characteristics included industry of employment coded to the five-digit North American Industry Classification System (NAICS) and grouped into the following 10 sectors: agriculture, mining, quarrying, oil and utilities; construction; manufacturing (food and other); wholesale trade; retail trade; transportation and warehousing; education; health care and social assistance; accommodation and food services; and other service industries—which comprised other service industry groups that were unlikely to provide stable estimates because of the size of the workforce working outside the home. Workplace characteristics also included workplace size (fewer than 20 employees, 20 to 99 employees, 100 to 500 employees, and more than 500 employees), whether the employer had more than one location (yes or no), and whether the workplace allowed

employees the option of working part or all of their hours at home (yes or no). For industry groups, health care and social assistance was used as the reference group, as it would be expected that ICPs are highest in this industry group.

The initial analytical sample totalled 53,316 responses. Missing data in the LFS are minimal. Missing data for questions in the LFS Supplement were imputed by Statistics Canada, using a nearest neighbour donor imputation method. Donors were identified to supply valid values to replace observations with missing data. The donors were determined by matching on labour force status (employed, absent, unemployed, not in the labour force); class of worker (employee, self-employed, unpaid family worker); industry (NAICS); occupation (National Occupational Classification four-digit code); sociodemographic variables (age, sex, education, immigrant status); and province. In total, 3% of values (n = 1,628) were imputed in the analytical dataset. The proportion of imputed values did not differ across the levels of each of the outcomes, with the exception of physical distancing, where imputation was

more common among those without physical distancing (3.2%), compared with those with physical distancing (2.6%). A variable indicating that imputation had occurred was entered into regression models.

To examine variables associated with level of workplace ICPs, a series of regression models were run. For models examining each ICP separately, adjusted risk differences were estimated, given the odds ratio would not approximate the relative risk.[13] For different levels of ICP as an outcome, a multinomial logistic model with the following four levels was used: none or only one ICP (7.2% of the sample); two ICPs (5.9% of the sample); three ICPs (15% of the sample); and four or more ICPs (71.9% of the sample). In these models, respondents with four or more ICPs were the reference group. Initial models included only sociodemographic characteristics and whether the respondent was employed by a public or private employer. Industry and most occupational variables were subsequently included, as these are potential mediators between demographic characteristics and ICP outcomes and including them when

Table 2
Adjusted risk difference and 95% confidence intervals for different types of workplace protections across sociodemographic variables, employed labour force participants engaged in on-site work in July through September (N = 53,316)

	Physical distancing			Personal protective equipment			Access to sanitizer or handwashing facilities			Enhanced cleaning		
	Risk difference (percent)	95% Confidence interval		Risk difference (percent)	95% Confidence interval		Risk difference (percent)	95% Confidence interval		Risk difference (percent)	95% Confidence interval	
		from	to		from	to		from	to		from	to
Intercept	81.5	79.2	83.8	83.0	80.7	85.1	88.0	86.2	89.7	83.1	80.8	85.2
Survey month												
July (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
August	0.9	-0.3	2.2	4.0 ‡	2.9 ‡	5.1 ‡	2.7 ‡	1.6 ‡	3.8 ‡	1.9 ‡	0.7 ‡	3.1 ‡
September	1.5 ‡	0.0 ‡	2.8 ‡	4.9 ‡	3.9 ‡	6.2 ‡	3.5 ‡	2.5 ‡	4.6 ‡	3.8 ‡	2.6 ‡	5.1 ‡
Age group												
15 to 19 years	3.3 ‡	0.7 ‡	6.0	-1.4	-3.8	0.8	1.2	-0.7	3.2	2.6	0.0	5.1 ‡
20 to 24 years	3.4 ‡	1.2 ‡	5.7	-0.8	-2.7	1.2	0.5	-1.3	2.4	0.7	-1.7	3.2
25 to 34 years	0.1	-1.8	1.9	0.0	-1.5	1.4	0.0	-1.4	1.5	-0.2	-1.9	1.5
35 to 44 years (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
45 to 54 years	1.3	-0.5	3.0	0.3	-1.2	1.8	0.8	-0.5	2.1	0.5	-1.0	2.1
55 to 64 years	0.6	-1.2	2.6	-0.1	-1.7	1.4	0.6	-0.9	2.2	0.7	-1.0	2.6
65 or older	0.4	-2.9	3.7	-0.8	-4.4	2.2	0.7	-2.2	3.2	0.3	-2.9	3.6
Sex												
Male (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Female	3.3 ‡	2.3 ‡	4.4 ‡	4.0 ‡	3.1 ‡	4.9 ‡	3.3 ‡	2.5 ‡	4.1 ‡	6.0 ‡	5.0 ‡	6.9 ‡
Marital status												
Married or common-law (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Widowed/separated/divorced	-1.0	-3.5	1.3	-0.6	-2.4	1.2	-0.9	-2.5	0.7	-0.7	-2.7	1.1
Never married	-0.3	-2.0	1.3	-0.2	-1.6	1.3	-0.9	-2.1	0.4	-0.4	-2.0	1.3
Children younger than 6 years												
No (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Yes	-2.0 ‡	-4.0 ‡	-0.1 ‡	-0.7	-2.5	1.1	-0.7	-2.2	0.7	-1.5	-3.6	0.4
Children 6 to 12 years												
No	...	...	...	...	...	...	...	...	...	...	...	...
Yes	-1.4	-3.3	0.3	-0.7	-2.1	0.8	-0.5	-1.8	0.8	-0.7	-2.4	1.0
Children 13 to 18 years												
No (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Yes	0.6	-1.3	2.6	-0.9	-2.4	0.6	-0.7	-2.2	0.6	0.3	-1.3	2.0

... not applicable

‡ Indicates statistically significant differences

Notes: CMA/CA = Census metropolitan area / census agglomeration. All estimates adjusted for all other variables in the table, and in addition if responses to workplace protections had been imputed.
Source: Labour Force Survey, July, August and September 2020.

Table 2
Adjusted risk difference and 95% confidence intervals for different types of workplace protections across sociodemographic variables, employed labour force participants engaged in on-site work in July through September (N = 53,316) (continued)

	Physical distancing			Personal protective equipment			Access to sanitizer or handwashing facilities			Enhanced cleaning		
	Risk difference (percent)	95% Confidence interval from	to	Risk difference (percent)	95% Confidence interval from	to	Risk difference (percent)	95% Confidence interval from	to	Risk difference (percent)	95% Confidence interval from	to
Immigrant status												
Immigrated 2016 or later	0.1	-3.8	3.8	-0.9	-4.1	2.5	-2.4	-5.3	0.5	-2.1	-5.8	1.3
Immigrated between 2010 and 2015	-0.6	-3.7	2.5	0.8	-2.0	3.5	-0.8	-3.3	1.5	-0.6	-3.6	2.3
Immigrated before 2010	-0.5	-2.6	1.8	-0.3	-2.3	1.7	-2.6‡	-4.5‡	-0.8‡	-0.6	-2.5	1.5
Not an immigrant (reference group)	…	…	…	…	…	…	…	…	…	…	…	…
Race												
White (reference group)	…	…	…	…	…	…	…	…	…	…	…	…
Black	2.2	-1.3	5.5	1.5	-1.6	4.6	1.6	-1.2	4.1	2.3	-0.8	5.3
Other racialized group	2.0	-0.1	4.1	1.9	-0.1	3.9	1.8	0.1	3.5	1.9	-0.1	3.9
Indigenous	3.3‡	1.1‡	5.3‡	-0.4	-3.6	2.7	-2.5	-6.1	0.7	-1.4	-5.6	2.1
Level of education												
Less than secondary education	-3.8‡	-6.3‡	-1.5‡	0.2	-2.0	2.2	-2.4‡	-4.5‡	-0.4‡	-5.9‡	-8.2‡	-3.6‡
Secondary education completed	-0.4	-1.9	1.1	2.1‡	0.6‡	3.5‡	0.0	-1.1	1.3	-2.2‡	-3.6‡	-0.8‡
Post-secondary (below bachelor's) completed	-1.2	-2.5	0.2	1.8‡	0.6‡	3.1‡	-0.2	-1.2	1.0	-1.8‡	-3.1‡	-0.6‡
Bachelor's degree or higher completed (reference group)	…	…	…	…	…	…	…	…	…	…	…	…
Province												
Newfoundland and Labrador	2.5	-0.3	5.0	-2.0	-4.7	0.7	0.6	-1.4	2.4	-0.9	-3.9	1.9
Prince Edward Island	0.1	-2.9	3.2	-7.8‡	-10.7‡	-4.8‡	-2.2	-4.9	0.3	-3.1‡	-6.2‡	-0.1‡
Nova Scotia	3.1‡	1.1‡	5.1‡	-1.2	-3.3	0.8	-0.5	-2.3	1.1	0.6	-1.4	2.8
New Brunswick	2.2‡	0.0‡	4.4‡	-3.3‡	-5.2‡	-1.4‡	-0.2	-1.9	1.4	-1.0	-2.9	1.0
Quebec	-0.7	-2.4	1.0	-0.3	-1.7	1.1	1.7‡	0.6‡	2.8‡	-1.5	-3.1	0.1
Ontario (reference group)	…	…	…	…	…	…	…	…	…	…	…	…
Manitoba	0.5	-1.2	2.2	-4.2‡	-6.0‡	-2.3‡	0.7	-0.8	2.0	-0.9	-2.6	0.9
Saskatchewan	-0.4	-2.5	1.6	-4.3‡	-6.3‡	-2.3‡	-0.8	-2.4	0.7	-0.6	-2.6	1.3
Alberta	1.7	-0.4	3.6	-0.6	-2.5	1.1	0.2	-1.5	1.7	0.8	-1.0	2.6
British Columbia	1.9	-0.2	3.9	-2.9‡	-4.9‡	-1.3‡	-1.0	-2.6	0.6	-0.2	-2.2	1.7
Urban/rural status												
CMA/CA urban core (reference group)	…	…	…	…	…	…	…	…	…	…	…	…
CMA/CA non-urban core	-1.3	-2.9	0.4	0.6	-1.0	2.1	0.1	-1.1	1.4	-0.9	-2.4	0.5
Non CMA/CA	-1.9‡	-3.4‡	-0.5‡	-0.7	-2.0	0.7	0.1	-1.0	1.2	-0.4	-3.5	2.5

… not applicable

‡ Indicates statistically significant differences

Notes: CMA/CA = Census metropolitan area / census agglomeration. All estimates adjusted for all other variables in the table, and in addition if responses to workplace protections had been imputed.

Source: Labour Force Survey, July, August and September 2020.

estimating the risk of ICP across sociodemographic groups would be a form of overadjustment.[14] Given that the composition of certain industry groups (e.g., education) could change over the time period, an interaction between industry and survey month was also examined.

Prevalence and risk estimates for all models were generated using specific weights developed by Statistics Canada for each monthly sample of the LFS Supplement, which take into account the exclusion of one-sixth of the original LFS sample. Variance estimates were generated using 1,000 bootstrap replicate weights for each monthly survey, also provided by Statistics Canada. The design of the LFS results in some dependency between observations across survey months. For example, the 53,316 responses from the months from July through September come from 33,421 respondents within 22,422 unique households. Given this dependency, results from the bootstrap replicate weights were compared with models where the household identifier and person within the household were included as cluster variables (as these options cannot be included in the same model). Minimal differences were observed between model variance estimates, with models with the bootstrap replicate weights providing slightly more conservative (i.e., larger) standard errors. Only models using the bootstrap replicate weights, as recommended by Statistics Canada, are presented in this paper. All models were checked for the presence of multicollinearity between predictors. No evidence of multicollinearity in any of the regression models was detected. All analyses were completed using SAS Version 9.4.

Results

Table 1 presents the distribution of the ICPs, both individually and as a summed number of ICPs. The prevalence of

respondents reporting the presence of specific types of ICPs was high across the sample. Increased access to hand sanitizer or handwashing facilities was the most prevalent ICP (91% of responses), followed by PPE (88% of responses), enhanced cleaning (86%) and physical distancing (84%), with 4% of the sample reporting another workplace protection in addition to the four specifically asked about. More than 7 in every 10 respondents reported having 4 or more ICPs in place at their workplace. Distributions of all study covariates and each of the individual ICP outcomes are included in the Appendix Table A.1.

Table 2 presents the adjusted risk difference estimates for the presence of each type of ICP across all sociodemographic variables. Risk difference estimates were multiplied by 100 to give a percent difference in the prevalence across exposure categories. Compared with the month of July, respondents in the August and September reported a higher prevalence of all types of ICPs. Women reported a higher prevalence of all ICPs compared with men. Respondents with less than secondary education reported lower prevalence of physical distancing, access to handwashing or sanitizing facilities, and enhanced cleaning, compared with respondents with a bachelor's degree and higher. The relationship between province and levels of ICPs was not consistent, although respondents from Prince Edward Island, Manitoba, Saskatchewan, New Brunswick and British Columbia had a lower prevalence of PPE, with respondents from Prince Edward Island also reporting a lower prevalence of enhanced cleaning, compared with respondents from Ontario.

Table 3 presents the adjusted risk difference estimates for each type of ICP across occupational and workplace characteristics, simultaneously adjusted for sociodemographic characteristics. Similar to Table 2, risk difference estimates have been multiplied by 100 to give an adjusted difference in the prevalence of each ICP as a percentage. Some groups of respondents, such as those with six months or less of job tenure,

Table 3

Adjusted risk difference and 95% confidence intervals for different types of workplace protections across occupational and workplace variables, employed labour force participants engaged in on-site work in July through September (N = 53,316)

	Physical distancing			Personal protective equipment			Access to sanitizer or handwashing facilities			Enhanced cleaning		
	Risk difference (percent)	95% Confidence interval		Risk difference (percent)	95% Confidence interval		Risk difference (percent)	95% Confidence interval		Risk difference (percent)	95% Confidence interval	
		from	to		from	to		from	to		from	to
Intercept	83.3	80.1	86.7	91.8	89.0	95.0	89.5	86.9	92.0	92.1	89.0	95.2
Class of worker												
Public employee (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Private employee	-1.7	-3.6	0.2	-1.5	-2.9	-0.1	-0.7	-2.2	0.8	-1.3	-3.0	0.4
Union membership												
Union member or CBA covered (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Not covered by CBA or union	2.7 ‡	1.2 ‡	4.2 ‡	-1.8 ‡	-3.0 ‡	-0.6 ‡	0.0	-1.1	1.1	-0.7	-2.1	0.7
Hours of work												
Full-time (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Part-time	-0.5	-2.1	1.3	-0.6	-2.1	0.9	-1.6 ‡	-3.1 ‡	-0.2 ‡	0.3	-1.3	1.9
Permanent worker												
Yes (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
No	-1.3	-3.0	0.5	-2.5 ‡	-4.1 ‡	-0.9 ‡	-1.7 ‡	-3.0 ‡	-0.3 ‡	-2.2 ‡	-3.9 ‡	-0.6 ‡
Hours of work vary												
No (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Yes	-2.4 ‡	-3.7 ‡	-1.0 ‡	0.1	-0.9	1.2	-1.2 ‡	-2.2 ‡	-0.3 ‡	-1.7 ‡	-2.9 ‡	-0.6 ‡
Works multiple jobs												
No (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Yes	1.7	-0.7	3.9	1.5	-0.5	3.5	0.1	-1.7	2.1	2.1 ‡	0.1 ‡	4.2 ‡
Length of current tenure												
6 months or less	-2.0 ‡	-3.9 ‡	-0.1 ‡	-2.3 ‡	-4.1 ‡	-0.6 ‡	-2.1 ‡	-3.6 ‡	-0.6 ‡	-2.3 ‡	-4.2 ‡	-0.5 ‡
7 to 12 months	-0.1	-2.4	2.1	0.0	-2.1	2.1	0.9	-0.9	2.5	0.0	-2.2	2.2
1 to 2 years	-1.1	-2.7	0.4	-0.7	-2.1	0.7	-0.5	-1.7	0.7	0.1	-1.4	1.5
3 to 5 years	-1.1	-2.8	0.6	-0.5	-2.1	1.1	0.2	-1.0	1.5	-1.3	-2.9	0.4
More than 5 years (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Hourly wage												
Less than $15 per hour	1.4	-1.1	4.1	-0.3	-2.5	2.0	-1.0	-3.1	1.1	-1.0	-3.4	1.4
$15 to $19.99 per hour	0.8	-1.2	2.9	-0.7	-2.6	1.0	-0.8	-2.4	0.7	-2.2 ‡	-3.9 ‡	-0.4 ‡
$20 to $24.99 per hour	0.2	-1.6	2.0	-1.4	-3.0	0.2	-0.9	-2.2	0.5	-3.1 ‡	-4.8 ‡	-1.2 ‡
$25 to $34.99 per hour	-1.7	-3.4	0.2	-0.7	-2.2	0.8	-1.4 ‡	-2.9 ‡	-0.1 ‡	-3.2 ‡	-4.8 ‡	-1.5 ‡
$35 or more per hour (reference group)	...	...	...	...	...	...	...	...	...	...	...	...

... not applicable

‡ Indicates statistically significant differences.

Notes: CBA = Collective bargaining agreement. Estimates adjusted for all variables included in the table, and in addition all measures included in Table 2.

Source: Labour Force Survey, July, August and September 2020.

Table 3
Adjusted risk difference and 95% confidence intervals for different types of workplace protections across occupational and workplace variables, employed labour force participants engaged in on-site work in July through September (N = 53,316) (continued)

	Physical distancing			Personal protective equipment			Access to sanitizer or handwashing facilities			Enhanced cleaning		
	Risk difference (percent)	95% Confidence interval from	to	Risk difference (percent)	95% Confidence interval from	to	Risk difference (percent)	95% Confidence interval from	to	Risk difference (percent)	95% Confidence interval from	to
Works indoors in an non-environmentally controlled environment												
No (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Yes	1.8	-0.5	4.3	2.2‡	0.0‡	4.4‡	1.2	-0.8	3.1	1.5	-1.1	4.0
Industry												
Agriculture, mining, quarrying, oil and utilities	-0.7	-3.8	2.3	-11.5‡	-14.4‡	-8.7‡	-5.0‡	-7.2‡	-2.7‡	-10.5‡	-13.4‡	-7.7‡
Construction	-6.4‡	-9.3‡	-3.6‡	-9.5‡	-12.0‡	-7.0‡	-5.0‡	-7.2‡	-2.9‡	-14.0‡	-16.5‡	-11.6‡
Manufacturing - Food	2.9	-0.9	6.4	-2.5	-5.5	0.4	1.7	-0.8	4.0	-0.8	-4.0	2.4
Manufacturing - Other	4.1‡	1.9‡	6.3‡	-5.5‡	-7.5‡	-3.5‡	0.2	-1.7	2.0	-3.0‡	-5.3‡	-0.6‡
Wholesale trade	3.7‡	0.7‡	6.7‡	-4.7‡	-7.3‡	-2.2‡	1.8	-0.1	3.8	-4.5‡	-7.5‡	-1.5‡
Retail trade	9.1‡	7.0‡	11.0‡	-2.2‡	-4.1‡	-0.5‡	4.0‡	2.5‡	5.4‡	0.8	-1.2	2.6
Transportation and warehousing	-3.1‡	-6.4‡	-0.1‡	-4.4‡	-6.4‡	-2.3‡	-2.0	-4.2	0.4	-8.6‡	-11.4‡	-6.0‡
Education	0.7	-2.0	3.5	-7.8‡	-10.2‡	-5.5‡	-1.9	-3.9	0.2	-5.9‡	-8.3‡	-3.7‡
Health care and social assistance (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Accommodation and food services	7.5‡	5.2‡	9.9‡	0.1	-2.1	2.3	3.4‡	1.5‡	5.4‡	3.7‡	1.6‡	6.1‡
Other service industries	2.0‡	0.2‡	3.7‡	-8.9‡	-10.4‡	-7.2‡	-0.6	-1.8	0.8	-5.0‡	-6.7‡	-3.5‡
Workplace size												
Fewer than 20 workers	-2.2	-4.4	0.3	-2.2‡	-4.0‡	-0.5‡	-0.7	-2.3	1.0	-1.5	-3.5	0.5
20 to 99 workers	0.8	-1.4	3.0	0.1	-1.5	1.8	1.7‡	0.3‡	3.2‡	1.1	-0.7	2.9
100 to 500 workers	2.5‡	0.4‡	4.6‡	0.3	-1.3	2.0	1.9‡	0.4‡	3.3‡	2.5‡	0.7‡	4.2‡
Over 500 workers (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Employer has more than one establishment												
No (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
Yes	2.3‡	1.0‡	3.5‡	2.2‡	1.1‡	3.2‡	1.6‡	0.7‡	2.5‡	3.2‡	2.0‡	4.5‡
Workplace allows workers the option of working part or all of hours from home												
Yes (reference group)	...	...	...	...	...	...	...	...	...	...	...	...
No	-6.7‡	-8.1‡	-5.3‡	-1.3	-2.6	0.1	-2.1‡	-3.2‡	-1.0‡	-5.0‡	-6.3‡	-3.6‡

... not applicable

‡ Indicates statistically significant differences.

Notes: CBA = Collective bargaining agreement. Estimates adjusted for all variables included in the table, and in addition all measures included in Table 2.

Source: Labour Force Survey, July, August and September 2020.

those in the construction sector, and those employed by an employer that did not have more than one location, were less likely to have all types of ICPs at the workplace. For other groups, access to ICPs differed by type of practice. For example, respondents who were not covered by a union or collective bargaining agreement reported a higher prevalence of physical distancing procedures in the workplace, but a lower prevalence of PPE. Similarly, respondents in non-food manufacturing and wholesale trade had a higher prevalence of physical distancing procedures (compared with those in health care and social assistance), but had a lower prevalence of PPE and cleaning protocols. For other groups, absence of protections was observed only for certain types of ICPs. For example, respondents from education and transportation and warehousing had a lower prevalence of PPE and enhanced cleaning, but were similar to health care and social assistance workers on other types of practices. Part-time workers were similar to full-time workers for all practices, with the exception of access to sanitizer and handwashing facilities, where part-time workers reported a lower prevalence of this ICP. Analyses examining

the interaction between industry group and month of the survey showed differences in the relationship between industry and ICP outcomes across survey months. The main industry group difference was in the education sector, where the risk difference estimates for PPE and cleaning procedures moved towards zero in the months of August and September, compared with the month of July (results not shown but available on request).

Table 4 reports the relationship between occupational and workplace characteristics and different levels of ICP, adjusted for sociodemographic characteristics. Workers who were non-permanent, those with varying hours, those with six months or less of job tenure (compared with those with more than five years of tenure) and those working for private employers were more likely to have no ICPs or only one ICP at the workplace. The association between part-time and full-time work and between hourly wage and level of ICPs was more complex. Respondents working part-time were less likely to have two ICPs, but more likely to have no ICPs or only one ICP, compared with full-time workers. For hourly wages, respondents earning $20 to $34.99 per hour were most likely to

have fewest ICPs (compared with respondents earning $35 or more per hour), with no clear differences observed between lowest-wage workers (less than $15 per hour) and highest-wage workers ($35 or more per hour) and levels of ICPs.

Differences in the number of ICPs were observed across industry groups. Respondents in agriculture and primary industries, and those in construction, had increased odds of having one or fewer ICPs, compared with respondents in health care and social assistance. Elevated odds were also observed for

Table 4
Adjusted odds ratios and 95% confidence intervals for number of workplace protections across occupational and workplace variables, employed labour force participants engaged in on-site work in July through September (N = 53,316)

	3 versus 4 or more			2 versus 4 or more			0 or 1 versus 4 or more		
		95% Confidence interval			95% Confidence interval			95% Confidence interval	
	Odds ratio	from	to	Odds ratio	from	to	Odds ratio	from	to
Class of worker									
Public employee (reference group)	....	....	....	....	....	....	....	....	....
Private employee	0.99	0.87	1.14	1.19	0.97	1.46	1.20	0.98	1.48
Union membership									
Union member or CBA covered	....	....	....	....	....	....	....	....	....
Not covered by CBA or union	0.91	0.82	1.01	0.96	0.81	1.13	1.00	0.86	1.16
Hours of work									
Full-time (reference group)	....	....	....	....	....	....	....	....	....
Part-time	1.04	0.93	1.17	0.80 ‡	0.66 ‡	0.97 ‡	1.28 ‡	1.05 ‡	1.56 ‡
Permanent worker									
Yes (reference group)	....	....	....	....	....	....	....	....	....
No	1.17 ‡	1.03 ‡	1.31 ‡	1.13	0.94	1.36	1.30 ‡	1.10 ‡	1.53 ‡
Hours of work vary									
No (reference group)	....	....	....	....	....	....	....	....	....
Yes	1.13 ‡	1.03 ‡	1.23 ‡	1.11	0.97	1.26	1.15 ‡	1.01 ‡	1.30 ‡
Works multiple jobs									
No (reference group)	....	....	....	....	....	....	....	....	....
Yes	1.03	0.86	1.22	0.69 ‡	0.53 ‡	0.90 ‡	0.84	0.63	1.12
Length of current tenure									
6 months or less	1.10	0.96	1.26	1.32 ‡	1.07 ‡	1.63 ‡	1.31 ‡	1.09 ‡	1.57 ‡
7 to 12 months	1.02	0.86	1.21	1.11	0.85	1.43	0.94	0.72	1.22
1 to 2 years	0.98	0.88	1.09	1.03	0.86	1.24	1.14	0.96	1.36
3 to 5 years	1.10	0.97	1.24	1.17	0.96	1.42	1.06	0.87	1.28
More than 5 years (reference group)	....	....	....	....	....	....	....	....	....
Hourly wage									
Less than $15 per hour	0.95	0.80	1.14	0.96	0.72	1.27	1.06	0.80	1.41
$15 to $19.99 per hour	1.09	0.95	1.25	0.97	0.78	1.22	1.12	0.91	1.38
$20 to $24.99 per hour	1.06	0.92	1.21	1.16	0.95	1.41	1.23 ‡	1.03 ‡	1.48 ‡
$25 to $34.99 per hour	1.13 ‡	1.00 ‡	1.28 ‡	1.23 ‡	1.03 ‡	1.47 ‡	1.26 ‡	1.05 ‡	1.51 ‡
$35 or more per hour (reference group)	....	....	....	....	....	....	....	....	....
Works indoors in an non-environmentally controlled environment									
No (reference group)	....	....	....	....	....	....	....	....	....
Yes	0.93	0.79	1.11	0.84	0.67	1.06	0.85	0.69	1.04
Industry									
Agriculture, mining, quarrying, oil and utilities	1.22	0.98	1.51	1.74 ‡	1.29 ‡	2.36 ‡	2.24 ‡	1.73 ‡	2.89 ‡
Construction	1.51 ‡	1.27 ‡	1.79 ‡	2.30 ‡	1.77 ‡	3.01 ‡	2.43 ‡	1.91 ‡	3.09 ‡
Manufacturing - Food	0.83	0.62	1.11	0.95	0.57	1.59	1.11	0.72	1.71
Manufacturing - Other	0.96	0.81	1.14	1.34 ‡	1.02 ‡	1.77 ‡	1.14	0.86	1.50
Wholesale trade	0.95	0.74	1.21	1.46 ‡	1.03 ‡	2.07 ‡	1.12	0.81	1.55
Retail trade	0.76 ‡	0.64 ‡	0.89 ‡	0.84	0.63	1.13	0.64 ‡	0.49 ‡	0.83 ‡
Transportation and warehousing	1.47 ‡	1.22 ‡	1.77 ‡	1.58 ‡	1.17 ‡	2.14 ‡	1.62 ‡	1.22 ‡	2.15 ‡
Education	1.22 ‡	1.00 ‡	1.49 ‡	1.19	0.81	1.76	1.72 ‡	1.24 ‡	2.37 ‡
Health care and social assistance (reference group)	....	....	....	....	....	....	....	....	....
Accommodation and food services	0.79 ‡	0.65 ‡	0.96 ‡	0.63 ‡	0.45 ‡	0.87 ‡	0.65 ‡	0.45 ‡	0.94 ‡
Other service industries	1.15 ‡	1.01 ‡	1.31 ‡	1.45 ‡	1.16 ‡	1.82 ‡	1.54 ‡	1.25 ‡	1.89 ‡
Workplace size									
Fewer than 20 workers	1.22 ‡	1.04 ‡	1.42 ‡	1.23	0.95	1.59	1.16	0.92	1.45
20 to 99 workers	1.06	0.91	1.24	0.97	0.76	1.25	0.83	0.66	1.03
100 to 500 workers	0.95	0.82	1.10	0.73 ‡	0.56 ‡	0.95 ‡	0.80 ‡	0.64 ‡	0.99 ‡
Over 500 workers	....	....	....	....	....	....	....	....	....
Employer has more than one establishment									
No (reference group)	....	....	....	....	....	....	....	....	....
Yes	0.90 ‡	0.83 ‡	0.99 ‡	0.79 ‡	0.70 ‡	0.90 ‡	0.74 ‡	0.66 ‡	0.84 ‡
Workplace allows workers the option of working part or all of hours from home									
Yes (reference group)	....	....	....	....	....	....	....	....	....
No	1.58 ‡	1.39 ‡	1.79 ‡	2.11 ‡	1.70 ‡	2.62 ‡	1.51 ‡	1.25 ‡	1.81 ‡

... not applicable

‡ Indicates statistically significant differences.

Notes: CBA = Collective bargaining agreement. Estimates adjusted for all variables included in the table, and in addition all measures included in Table 2.

Source: Labour Force Survey, July, August and September 2020.

respondents in transportation and warehousing, education, and other service industries. Respondents working in retail trade and accommodation and food services had reduced odds of reporting lower levels of ICPs, compared with respondents in health care and social assistance. Respondents in workplaces with 100 to 500 respondents had a lower probability of having fewer ICPs (compared with respondents in workplaces with over 500 employees), as did respondents where the employer operated more than one worksite. Workplaces where workers did not have the option to work part or all of their hours at home were more likely to have lower levels of ICPs, compared with workplaces that did have the option, but were still operating with employees onsite.

Discussion

Workplace-based ICPs are important measures to reduce workplace transmission of COVID-19.[1] In a sample of paid employees who worked most of their hours outside the home in the period of July 2020 to September 2020, generally high levels of reported ICPs at the workplace were observed, although certain subgroups of employees were less likely to have ICPs in place. Groups with lower workplace ICPs included workers who were male, those with lower levels of education, shorter job tenure, non-permanent work, and those working in the agricultural, construction, transportation and warehousing, and education industries. Groups with higher levels of ICPs included employees in the retail trade and accommodation and food service industries, and employees whose employer has multiple locations or who allow workers the option of working part or all of their hours at home.

The results of this study demonstrate that the access to workplace ICPs is not randomly distributed across the Canadian labour market. In addition, groups with lower access to protections were similar to the groups who historically have had lower access to other workplace protections or higher levels of exposure to workplace hazards.[15,16] While material deprivation, race and immigrant status have previously been associated with higher risk of COVID-19 in Ontario,[17,18] and race has been associated with higher mortality from COVID-19 in the US[19] and severe COVID-19 infection in the UK,[20] these groups did not have lower levels of protections at the worksite in this study. This study did observe lower levels of protections among men, and workers in the transportation and warehousing, and construction sectors, which is consistent with labour force groups identified as having excess mortality observed in the US study.[19] In addition, this study showed lower protections among workers in transportation and education, which were observed as having higher risk of severe COVID-19 in the UK study.[20]

The results of this study should be interpreted given the following strengths and limitations. The questions used in the LFS ask only about the existence of protections. This study could not examine whether these protections were well implemented, were adhered to across the worksite, or whether workers perceived the level of protections in place as adequate.

A consistent limitation in much of COVID-19 research to date, both in the area of work and health and in general, is a reliance on convenience-based samples, which can be prone to selection bias.[21] In contrast, this study examined the prevalence of workplace ICPs across a large representative sample of the Canadian labour force. The size of the sample also enabled examination of the prevalence of workplace ICPs across detailed labour force subgroups. Given the rapidly changing nature of the COVID-19 pandemic and guidance for workplace practices, the findings in this paper should not be generalized beyond the time period of July through September 2020. This time period coincided with relatively low daily case counts in Canada, with an average of 393 cases per day in July, 408 cases per day in August and 1,006 cases per day in September. This can be compared with 1,521 cases per day during April 2020 (peak of the first wave), over 6,400 cases per day in December 2020 and January 2021 (the peak of the second wave), and almost 8,000 cases per day in April 2021 (the peak of the third wave).[22]

Increasing evidence is accumulating that the transmission of COVID-19 is through aerosols, in addition to droplets, with less evidence that surfaces are a major route of transmission.[11,23] As such, some of the protections examined in this paper, such as physical distancing and personal protective equipment (PPE), may be more effective and important to implement than others such as enhanced cleaning activities. In this study, short-tenure workers (compared with those with more than five years of tenure) and respondents in construction were less likely to have physical distancing and PPE in their workplace. In addition, employees in public-facing industries, such as retail trade and education, were also more likely to not have PPE in the workplace. Employees in small workplaces (fewer than 20 employees) also had a lower prevalence of PPE, which may reflect the reduced capacity in relation to occupational health and safety activities and financial resources for protective measures, compared with larger organizations.[24] While the proportion of workers without these protections is relatively small as a proportion of the employed labour market, it does point to current important gaps in infection control among the working population that can and should be addressed to help reduce the number of COVID-19 infections.

In conclusion, in this study of paid employees in Canada who worked a majority of their hours at the worksite in the period from July to September 2020, there were generally high proportions of ICPs available in workplaces to reduce the spread of COVID-19. These findings are consistent with the relatively low proportion of overall cases among the working-age population that can be attributed to workplace outbreaks in Ontario.[25] However, it should be noted that certain segments of the labour market are still inadequately protected from COVID-19, despite having to go to the workplace to work. These groups include those at the start of their employment, workers with low levels of education, and certain industry groups, in particular, construction, transport and warehousing, and agriculture, and workplaces where there is not the option to work remotely.

Acknowledgements

Table A.1

Distribution of individual infection control practices by selected characteristics, employed labour force participants engaged in on-site work in July through September 2020 (N = 53,316)

	N[‡]	% of sample	% with physical distancing	% with personal protective equipment	% with access to sanitizer or handwashing facilities	% with enhanced cleaning
Age group						
15 to 19 years	4,051	7.6	85.5	86.9	91.5	86.0
20 to 24 years	6,226	11.7	86.8	87.9	91.5	85.9
25 to 34 years	12,286	23.0	83.0	88.0	91.1	85.1
35 to 44 years	10,668	20.0	82.4	87.7	90.8	85.0
45 to 54 years	10,485	19.7	84.3	88.3	91.7	86.1
55 to 64 years	8,489	15.9	83.4	88.3	91.6	85.8
65 years or older	1,110	2.1	82.7	86.9	91.2	84.7
Sex						
Male	29,346	55.0	82.2	86.2	89.8	82.7
Female	23,970	45.0	85.8	90.0	93.2	89.1
Marital status						
Married or common-law	30,684	57.6	83.3	88.0	91.5	85.5
Widowed/separated/divorced	3,662	6.9	83.2	88.1	91.1	85.9
Never married	18,971	35.6	84.8	87.8	91.1	85.5
Children younger than 6 years						
No	47,407	88.9	84.2	88.0	91.4	85.8
Yes	5,909	11.1	80.9	87.2	90.5	83.5
Children 6 to 12 years						
No	45,200	86.7	84.1	88.0	91.4	85.7
Yes	7,116	13.4	81.9	87.3	90.7	84.8
Children 13 to 18 years						
No	46,732	87.7	83.8	88.0	91.4	85.4
Yes	6,584	12.4	84.2	87.7	91.0	86.4
Immigrant status						
Immigrated 2016 or later	1,515	2.8	85.1	87.4	90.4	85.1
Immigrated between 2010 and 2015	2,695	5.1	84.6	89.4	91.9	86.8
Immigrated before 2010	8,168	15.3	84.5	88.8	90.2	86.8
Not an immigrant	40,938	76.8	83.6	87.7	91.5	85.2
Race						
White	38,761	72.2	83.2	87.6	91.4	85.1
Black	2,207	4.1	85.1	89.4	91.9	87.2
Other racialized group	10,607	19.9	85.5	89.1	91.4	87.3
Indigenous	1,741	3.3	86.6	86.0	88.2	83.4
Level of education						
Less than secondary education	5,044	9.5	81.1	86.1	89.3	81.6
Secondary education completed	15,494	29.1	84.8	88.3	91.5	85.3
Postsecondary (below bachelor's) completed	20,296	38.1	83.1	88.4	91.4	85.2
Bachelor's degree or higher completed	12,482	23.4	84.9	87.5	91.7	88.0
Province						
Newfoundland and Labrador	786	1.5	85.1	86.7	91.9	84.8
Prince Edward Island	271	0.5	82.5	80.7	88.9	82.3
Nova Scotia	1,446	2.7	86.0	87.6	90.8	86.4
New Brunswick	1,232	2.3	84.8	85.4	91.1	84.7
Quebec	12,453	23.4	82.3	88.5	92.8	84.2
Ontario	19,316	36.2	83.5	89.1	91.1	86.1
Manitoba	2,189	4.1	84.3	84.7	91.6	85.0
Saskatchewan	1,860	3.5	82.8	84.4	90.1	84.9
Alberta	6,665	12.5	85.0	88.2	91.1	86.5
British Columbia	7,097	13.3	85.7	86.3	90.1	86.0
Urban/rural status						
CMA/CA urban core	39,881	74.8	85.1	88.1	91.3	86.0
CMA/CA non-urban core	5,285	9.9	82.7	88.5	91.5	84.5
Non CMA/CA	8,150	15.3	82.0	86.7	91.4	84.2
Class of worker						
Public employee	10,741	20.2	83.5	90.9	92.2	89.0
Private employee	42,575	79.9	83.9	87.2	91.1	84.7

‡ N = estimated Labour Force Survey Supplement survey weights.

Notes: CMA/CA = Census metropolitan area / census agglomeration. CBA = Collective bargaining agreement.

Source: Labour Force Survey, July, August and September 2020.

Table A.1
Distribution of individual infection control practices by selected characteristics, employed labour force participants engaged in on-site work in July through September 2020 (N = 53,316) (continued)

	N[‡]	% of sample	% with physical distancing	% with personal protective equipment	% with access to sanitizer or handwashing facilities	% with enhanced cleaning
Union membership						
Union member or CBA covered	15,989	29.9	81.3	90.5	91.6	86.7
Not covered by CBA or union	37,327	70.0	84.9	86.8	91.2	85.1
Hours of work						
Full-time	43,485	81.6	83.5	87.8	91.4	85.1
Part-time	9,831	18.4	85.2	88.6	91.0	87.5
Permanent worker						
Yes	45,968	86.2	84.2	88.5	91.7	86.1
No	7,348	13.8	81.8	84.4	88.7	82.4
Hours of work vary						
No	35,856	67.3	84.5	87.8	91.8	85.9
Yes	17,460	32.8	82.5	88.2	90.3	84.8
Works multiple jobs						
No	50,926	95.5	83.8	87.9	91.3	85.4
Yes	2,390	4.5	85.4	89.3	91.1	88.3
Length of current tenure						
6 months or less	6,939	13.0	82.2	84.7	88.7	82.3
7 to 12 months	3,301	6.2	85.4	88.2	92.4	86.0
1 to 2 years	12,557	23.6	84.2	87.8	91.2	86.2
3 to 5 years	7,215	13.5	83.6	88.0	91.7	84.8
More than 5 years	23,304	43.7	84.0	88.9	91.9	86.4
Hourly wage						
Less than $15 per hour	7,121	13.4	87.3	88.4	92.2	87.7
$15 to $19.99 per hour	13,102	24.6	85.2	87.8	91.5	85.7
$20 to $24.99 per hour	9,805	18.4	83.0	87.4	91.1	84.0
$25 to $34.99 per hour	12,037	22.6	81.3	87.8	90.4	83.7
$35 or more per hour	11,251	21.1	83.4	88.4	91.7	87.4
Works inside in an non-environmentally controlled environment						
No	50,432	94.6	84.0	88.0	91.4	85.8
Yes	2,884	5.4	80.8	87.0	89.7	80.7
Industry						
Agriculture, mining, quarrying, oil and utilities	1,989	3.7	80.6	81.0	86.2	78.6
Construction	4,708	8.8	72.4	82.3	85.0	72.6
Manufacturing - Food	1,530	2.9	84.6	90.5	93.2	87.8
Manufacturing - Other	4,964	9.3	85.5	87.9	91.7	85.7
Wholesale trade	1,994	3.7	85.4	87.5	93.0	83.8
Retail trade	8,472	15.9	90.8	90.3	94.9	89.5
Transportation and warehousing	3,044	5.7	77.5	89.0	89.0	80.0
Education	2,394	4.5	84.3	88.1	92.0	88.0
Health care and social assistance	8,392	15.7	82.0	94.1	92.2	90.8
Accommodation and food services	4,276	8.0	88.4	91.6	93.2	91.2
Other service industries	11,554	21.7	84.1	83.3	90.5	84.1
Workplace size						
Fewer than 20 workers	19,267	36.1	81.7	85.2	89.4	82.8
20 to 99 workers	18,469	34.6	85.2	88.8	92.6	86.4
100 to 500 workers	9,897	18.6	86.2	89.8	92.8	88.3
Over 500 workers	5,683	10.7	82.5	91.2	91.0	87.3
Employer has more than one establishment						
No	19,272	36.2	81.2	85.5	89.5	82.0
Yes	34,044	63.9	85.3	89.3	92.3	87.6
Option for staff to work part or all of hours at home						
No	46,264	86.8	83.0	88.0	91.0	84.9
Yes	7,052	13.2	89.6	87.7	93.3	90.0

[‡] N = estimated Labour Force Survey Supplement survey weights.
Notes: CMA/CA = Census metropolitan area / census agglomeration. CBA = Collective bargaining agreement.
Source: Labour Force Survey, July, August and September 2020.

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