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Gearing up to stay open: Trends in businesses' needs for personal protective equipment since July

by Steve Martin

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Gearing up to stay open: Trends in businesses' needs for personal protective equipment since July

by **Steve Martin**

The COVID-19 pandemic has seen unprecedented demand for personal protective equipment (PPE), resulting in persistent global uncertainty about supplies and inventories of PPE since the beginning of the pandemic. With the prospect of a second wave of COVID-19 looming, coupled with increasing cases across parts of the country, availability of these items is important for Canadian businesses to safely continue to operate. This study examines the evolution of private-sector businesses' demand for PPE since July, and concerns about lack of supply, using new data for August 2020 from the Personal Protective Equipment Survey.

Businesses' needs for PPE are unchanged since July

A little over two thirds (70.0%) of businesses operating in the provinces need, or expect to need, PPE to operate in accordance with COVID-related public health guidance as of August.¹ This is roughly unchanged from July (69.1%). Businesses in private health care and social assistance (95.0%), accommodation and food services (85.9%), and retail trade (80.8%) continue to be the most likely to need PPE, as employment growth in the services sectors outpaced growth in the goods-producing sectors in August (Statistics Canada, 2020c).

Of the businesses that need PPE, 78.9% need at least four of the fourteen types of PPE covered by the Personal Protective Equipment Survey.² Although this is not directly comparable to the results from the July iteration of the survey due to the inclusion of non-medical gloves and non-medical masks in the August iteration, the overall trend remains unchanged—businesses' demand for PPE involves many different products. Items related to cleaning surfaces and hands, along with masks, continue to be items that most businesses demand, with businesses that need PPE most likely to require hand sanitizer (93.4%), disinfectant (80.3%), disinfectant wipes (69.4%), and non-medical masks (65.0%) and surgical masks (36.9%).³ These values are broadly similar to those for July, suggesting that what businesses need to safely operate has not changed. Businesses in private health care and social assistance continue to be the most likely to need four or more different types of PPE (95.6%).

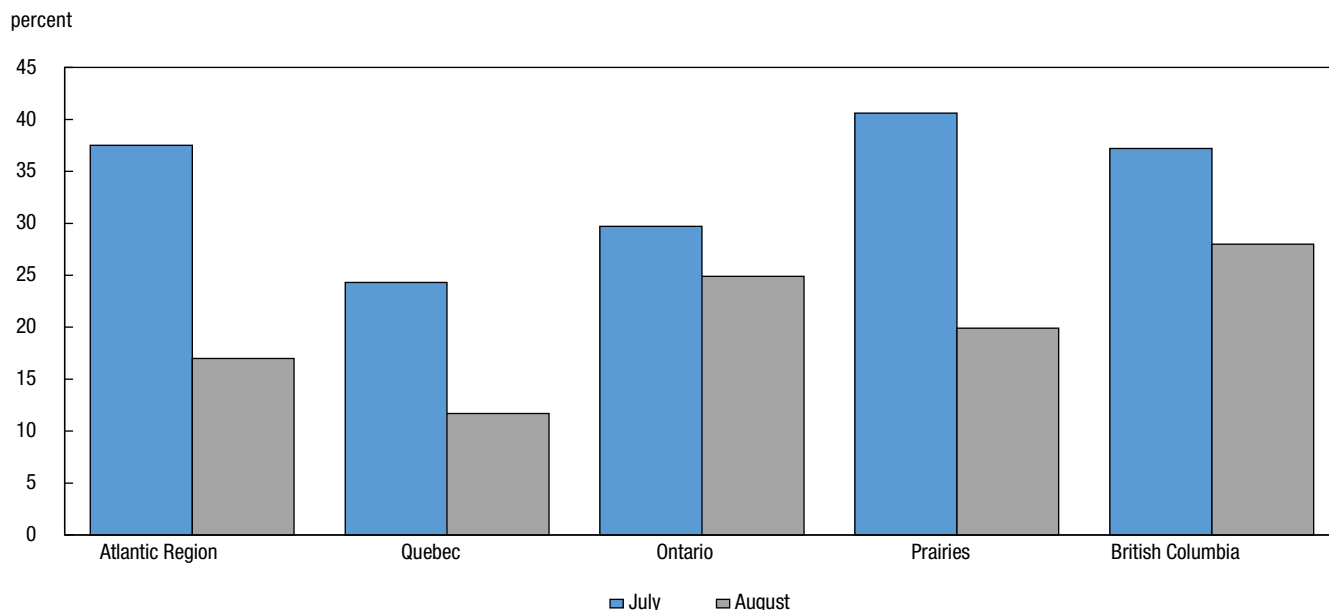
Businesses are less concerned about shortages than in July

Among businesses that need PPE, 21.2% expect a shortage in the next three months for at least one type of PPE that they require, an 11.2 percentage point reduction from July (chart 1). This is similar to the fraction of businesses that were experiencing or expecting to experience difficulty procuring PPE in May, according to the Canadian Survey on Business Conditions (Statistics Canada, 2020b). As the August iteration of the survey includes more types of PPE than in July, this understates the reduction in businesses' concerns about availability of PPE since July. It is worth noting, however, that this does not reflect possible changes in businesses' expectations about shortages of PPE due to the recent resurgence of COVID-19 cases in parts of the country.

1. Businesses operating in the territories are excluded from the analysis, although the results are largely unchanged if these businesses are included.
2. These include: disinfectant, disinfectant wipes, disposable gowns, eye goggles, face shields, hand sanitizer, nitrile gloves, non-medical gloves, non-medical masks, respirators, reusable gowns, shoe/boot covers, surgical masks, and thermometers.
3. Gloves are the next most likely item to be required, with 44.7% of businesses requiring non-medical gloves and 42.7% of businesses requiring nitrile gloves. The remaining types of PPE covered by the survey are far less likely to be needed by businesses.



Chart 1
Businesses that need personal protective equipment (PPE) are less likely to expect a shortage in August than in July



Note: Each bar gives the proportion of businesses that expect a shortage in the next three months for at least one type of PPE that they require, among businesses that need PPE.
Source: Statistics Canada, Personal Protective Equipment Survey, July/August 2020.

An additional 19.0% of businesses are also unsure if they will experience a shortage in the next three months for at least one type of PPE that they need, similar to July, so that 59.7% of businesses do not expect a shortage for any of the PPE they need.⁴ Businesses in private health care and social assistance continue to be the most likely to expect shortages (41.7%).

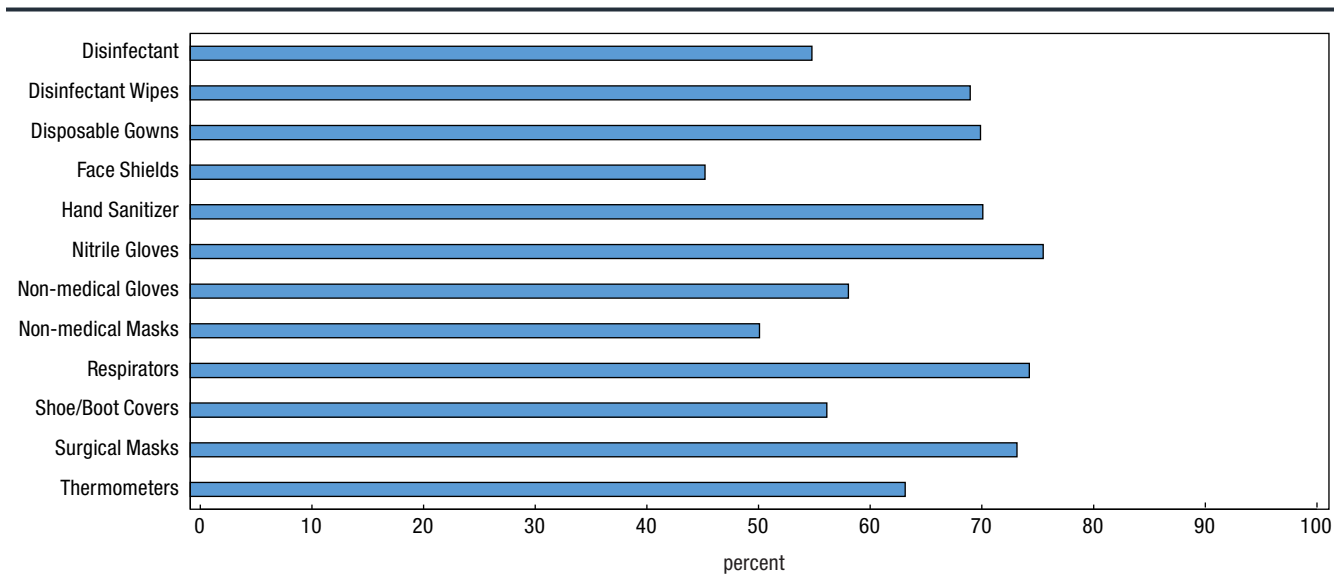
Businesses that need a given item of PPE continue to be most likely to expect shortages for respirators (23.6%), disinfectant wipes (19.5%), disposable gowns (13.7%), and gloves (13.2% for nitrile, 10.8% for non-medical). For each type of PPE, the most common reason that businesses expect a shortage is because of insufficient products/equipment available from suppliers.⁵ For respirators, disinfectant wipes, disposable gowns, and nitriles gloves in particular—the essential items for which businesses are most likely to expect a shortage—over two thirds of businesses expect a shortage of these items due to lack of availability from suppliers (chart 2). These concerns come as 10.2% of businesses in the manufacturing, retail, and wholesale trade sectors are involved in the manufacturing or distribution of PPE, compared to 7.4% in July.

4. Some businesses both expect a shortage for some types of PPE and are unsure if they will experience a shortage for other types of PPE. Businesses that both expect a shortage and are unsure if they will experience a shortage for at least one type of PPE that they require are counted as expecting a shortage.
 5. Other reasons include: no supplier identified, delay in receipt of PPE from suppliers, and insufficient purchasing power to buy quantities of PPE needed to secure suppliers.



Chart 2

Businesses are most likely to expect a shortage of personal protective equipment (PPE) because of insufficient products available from suppliers



Note: Each bar gives the proportion of businesses that expect a shortage of PPE because of insufficient products/equipment available from suppliers, among businesses that expect a shortage of PPE. Values for eye goggles and reusable gowns are suppressed.

Source: Statistics Canada, Personal Protective Equipment Survey, August 2020.

Small businesses are no more likely to expect shortages than medium/large businesses

The COVID-19 pandemic has been particularly difficult for small businesses (e.g., Gu, 2020; Statistics Canada, 2020a).⁶ Despite concerns that these organizations may have less financial capacity to acquire PPE compared to larger businesses, small businesses are less likely to need PPE than medium/large businesses, with 69.7% of small businesses needing PPE to safely operate compared to 88.1% of medium/large businesses. Small businesses that need PPE are also not significantly more likely to expect a shortage of PPE compared to medium/large businesses.⁷ This is broadly similar to the survey results from July. In most cases, small businesses that expect a shortage for a given item of PPE do not expect a shortage due to insufficient purchasing power—like medium/large businesses, the most common reason is lack of availability from suppliers.

6. Following Gu (2020), a small business is defined as one with fewer than 100 employees prior to COVID-19, and a medium/large business as one with 100 or more employees prior to COVID-19.

7. Small businesses are 2.6 percentage points less likely to expect a shortage for at least one type of PPE that they need, although this difference is not statistically significant at the conventional levels (p -value of 0.42). These results remain roughly unchanged after controlling for sector and region in a linear probability model.



Data sources

Data for this analysis come from the Personal Protective Equipment Survey for August 2020. This voluntary survey aims to collect information on private-sector businesses' supply, demand, and inventories of PPE. Along with the results of this analysis, these data are used to help the federal government model usage and inventories of PPE in Canada, and forecast potential shortfalls in these items.

The sample for the August iteration of the survey includes 4,665 businesses operating in Canada. An important piece of context for these data is that, due to COVID-19, there have been an unprecedented number of business closures, with certain regions of the country (e.g., Ontario) seeing an over 100% increase in closures, and certain industries (e.g., retail) seeing an over 200% increase in closures, in April 2020 compared to April 2019 (Lafrance-Cooke et al., 2020). Not only does this highlight the challenges for collecting these data, but it also means that the results only apply to those businesses that have at least partially resumed operations, not to businesses that have not resumed operations but will, or businesses that have permanently closed.

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