



Commissionaires Great Lakes

Situation Analysis & Business Continuity Update - Novel Coronavirus Outbreak

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Introduction

We are currently in the midst of a global pandemic that according to Bill Gates may be a “once in a century pathogen”.¹ Coronavirus is spreading, and the global response has varied. China for example, has taken decisive measures to contain the virus.² Other countries have been slower to respond.³ While it could be said that 24/7 news coverage of the virus has led to a heightened sense of fear and panic across the globe, there is reason to worry from a business continuity perspective. While many organizations initiate business continuity scenarios that may include pandemic planning, few organizations would have assumed the reality we face today.

Depending on containment efforts around the world, Coronavirus may have long-term consequences for Commissionaires Great Lakes. Impacts we foresee include:

- **Labour Market Disruption** – If a larger percent of the population becomes ill, we may be forced to suspend business operations as part of a broader public health initiative or as our contribution to contain the spread of the virus to our clients given the number of guards we employ. The latter outcome would require a decision by the board to suspend operations if a large percentage of the population, (and by extrapolation, our workforce) is presumed to be infected by the virus based on available statistics of community spread. By extension, this recommendation would only be made after extensive consultation with our clients and coordination with their pandemic response plans.
- **Business Disruption** – Depending on the response taken by public health officials and the rate of transmission, we may need to anticipate draconian measures adopted by countries such as Italy where the country remains in “lockdown” and “social isolation” has become policy. This report will outline why that may become a real possibility in Canada.
- **Healthcare System Disruption** – Given the published mortality rates of Coronavirus around the globe, there is reason to believe our healthcare system will be stretched beyond capacity without government intervention. Some estimates put our existing capacity at 57,000 hospital beds across Canada.⁴ As is the case in Italy, Canada may be faced with a painful situation of turning away infected patients due to strains on our healthcare system. It is possible that Commissionaires could be called up to further provide security for quarantine sites, medical facilities and critical infrastructure as part of broader government intervention to contain the spread. As is the case in New Rochelle, New York, that may include the deployment of Canada’s Armed Forces.⁵
- **General Economic Disruption** – There is arguably going to be a multiplier effect across global economies that we have yet to realize. With the implementation of “social isolation” as a containment mechanism to curb the spread, some experts argue we may be in for a steep and prolonged recession.⁶ We are already

¹ <https://www.gatesnotes.com/Health/How-to-respond-to-COVID-19>

² <https://www.nytimes.com/2020/03/07/world/asia/china-coronavirus-cost.html>

³ <https://www.politico.com/news/2020/03/06/coronavirus-testing-failure-123166>

⁴ <https://www.longwoods.com/content/23480>

⁵ <https://www.cnn.com/2020/03/10/new-york-gov-cuomo-to-deploy-national-guard-to-new-rochelle-establishes-containment-center-to-stem-coronavirus.html>

⁶ <https://hbr.org/2020/03/what-coronavirus-could-mean-for-the-global-economy?ab=hero-main-text>

seeing evidence of the impact to the broader economy.⁷

The plans we made for the upcoming year related to the implementation of CGL 360 have been set aside until we get a better handle on the situation which seems to be changing by the day.

A Race Against Time

There appears to be a great deal of misinformation related to the spread of Coronavirus. Some argue the fear associated with the virus is a “hoax” perpetrated by a liberal leaning media to oust the sitting president of the United States.⁸ Others take the virus seriously because it has the potential to kills untold millions. We are prudently planning our response on the latter view. Little is known about the virus since it emerged on the scene in December of 2019.⁹

No doubt, the psychological reaction to 24/7 news coverage may be exaggerated and irrational. Hoarding supplies such as toilet paper and food may be extreme relative to what is currently known about the physiological impact of the virus.¹⁰ Indeed, some may experience mild symptoms that would not warrant a sick day, let alone quarantine. Some may experience no symptoms at all which would only exacerbate infection rates. Although certain segments of the population may have a higher risk of fatality such as seniors or those with preexisting conditions, the statistics suggest 96 out of every 100 who are infected will recover.

However, at a macro level, the fatality rate is not inconsequential. If the infection rate goes unchecked and up to 70% of the population centers can be infected according to current estimates by the Canadian and German government,¹¹ then simply multiply 70% of our global population by a mortality rate that currently stands at 3.73%, and 203 million people globally can potentially die from the virus. This will have devastating consequences for the global economy that will have a lasting impact.

Indeed, one could argue that drastic government intervention is a response to the potential fatality rate at the global level than the potential inconvenience of contracting the disease. Although we can analyze a number of factors that would contribute to our financial hardship, there are 4 parameters we can model with known information provided by the Centers for Disease Control (CDC) in the United States. Those parameters that can affect the severity and duration of this crisis including:

- a) Infection Rate
- b) Hospitalization Rate
- c) Mortality Rate
- d) Financial Impact

The most concerning of these variables is the infection and mortality rate based on known statistics. If we compare Coronavirus to the Common Flu, here is what we know:

⁷ <https://www.ibisworld.com/industry-insider/analyst-insights/industry-impacts-of-the-coronavirus/>

⁸ <https://www.cnn.com/2020/02/28/trump-says-the-coronavirus-is-the-democrats-new-hoax.html>

⁹ https://en.wikipedia.org/wiki/2019–20_coronavirus_pandemic

¹⁰ <https://nypost.com/2020/03/04/why-people-are-buying-so-much-toilet-paper-amid-coronavirus-outbreak/>

¹¹ <https://www.theglobeandmail.com/canada/article-between-30-and-70-per-cent-of-canadians-could-be-infected-with/>

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- In the United States, there were 45 million estimated cases of the flu. Of that number, 810,000 required hospitalization, and 61,000 died in 2017/2018. ¹² This implies a hospitalization rate of 1.8% and a mortality rate of 0.13%.
 - The flu costs the US almost \$87 billion per year according to the CDC foundation. ¹³
 - The mortality rate associated with the flu is “guaranteed” to decrease as the summer season approaches according to Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases. The same cannot be said about Coronavirus. ¹⁴
 - To date, 150,390 people have been infected with Coronavirus and 5,614 people have died. This implies a mortality rate of 3.73%. Stated differently, Coronavirus is 28 times more likely to cause fatality relative to the common flu.¹⁵
 - If we extrapolate these parameters to some financial assumptions, the cost to the global economy can be in the trillions of dollars.

Why does this matter to Commissionaires? The numbers paint a scary picture. If we model the progression of the common flu in the US, the model outlines a predictable path.

¹² <https://www.cdc.gov/flu/about/burden/index.html>

¹³ <https://www.cdcfoundation.org/pr/flu-costs-United-States-87-billion-annually>

¹⁴ <https://www.whitehouse.gov/briefings-statements/press-briefing-members-presidents-coronavirus-task-force/>

¹⁵ https://en.wikipedia.org/wiki/2019–20_coronavirus_pandemic

High Level Model Of Flu Outbreak In the US

Time Lag	Infected	Common Flu			
		Infection Rate 1 Person Infects 3.55	Hospitalization Rate 1.765 Percent Of People Who Get The Disease Require Hospitalization	Mortality Rate 0.135 Percent Of People Who Get The Disease Die	Financial Impact Cost To Treat One Person Is 1400000 Dollars
T+1	1	4	0	0	\$4,970,000
T+2	4	13	0	0	\$17,643,500
T+3	13	45	1	0	\$62,634,425
T+4	45	159	3	0	\$222,352,209
T+5	159	564	10	1	\$789,350,341
T+6	564	2,002	35	3	\$2,802,193,711
T+7	2,002	7,106	125	10	\$9,947,787,673
T+8	7,106	25,225	445	34	\$35,314,646,240
T+9	25,225	89,548	1,581	121	\$125,366,994,152
Intervention	89,548	2	Adjustment		2
T+10	89,548	179,096	3,161	242	338,490,884
T+11	179,096	358,191	6,322	484	\$676,981,768
T+12	358,191	716,383	12,644	967	\$1,353,963,537
T+13	716,383	1,432,766	25,288	1,934	\$2,707,927,074
T+14	1,432,766	2,865,531	50,577	3,868	\$5,415,854,147
T+15	2,865,531	5,731,063	101,153	7,737	\$10,831,708,295
T+16	5,731,063	11,462,125	202,307	15,474	\$21,663,416,589
T+17	11,462,125	22,924,250	404,613	30,948	\$43,326,833,179
T+18	22,924,250	45,848,501	809,226	61,895	\$86,653,666,358
Intervention	45,848,500.72	1	Adjustment		1
T+19	45,848,500.72	45,848,500.72	809,226.04	61,895.48	\$86,653,666,358
Intervention	45,848,500.72	0			
T+20	45,848,500.72	0.00		0	0

Based on known information, we can make the following plausible assumptions as it relates to Coronavirus.

- Studies suggest Coronavirus is more infectious than the common flu. If we assume 1 person with the flu infects 3 people, we can reasonably assume that 1 person with Coronavirus can infect 7 people.
- We know based on published statistics that the Coronavirus is 28 times more lethal than the common flu based on existing mortality rates.¹⁶

If we use these parameters to model the trajectory of Coronavirus, we can begin to understand why containment is crucial in the early stages of the pandemic, especially given the exponential infection and mortality rate.

¹⁶ https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200306-sitrep-46-covid-19.pdf?sfvrsn=96b04adf_2

High Level Model Of Coronavirus Outbreak In the US

		Coronavirus				
Time Lag	Infected	Infection Rate	Hospitalization Rate	Mortality Rate	Financial Impact	
		1 Person Infects 7.29525	35.3 Percent Of People Who Get The Disease Require Hospitalization	3.78 Percent Of People Who Get The Disease Die	Cost To Treat One Person Is 1400000 Dollars	
T+1	1	7	3	0	\$10,213,350	
T+2	7	53	19	2	\$74,508,942	
T+3	53	388	137	15	\$543,561,356	
T+4	388	2,832	1,000	107	\$3,965,415,983	
T+5	2,832	20,663	7,294	781	\$28,928,700,951	
T+6	20,663	150,744	53,213	5,698	\$211,042,105,616	
T+7	150,744	1,099,718	388,200	41,569	\$1,539,604,920,998	
T+8	1,099,718	8,022,716	2,832,019	303,259	\$11,231,802,799,908	
T+9	8,022,716	58,527,721	20,660,286	2,212,348	\$81,938,809,376,032	
Intervention	58,527,721	2		Adjustment	2	
T+10	58,527,721	117,055,442	41,320,571	4,424,696	6,194,573,988,828	
T+11	117,055,442	234,110,884	82,641,142	8,849,391	\$12,389,147,977,656	
T+12	234,110,884	468,221,768	165,282,284	17,698,783	\$24,778,295,955,312	
T+13	468,221,768	936,443,536	330,564,568	35,397,566	\$49,556,591,910,624	
T+14	936,443,536	1,872,887,071	661,129,136	70,795,131	\$99,113,183,821,248	
T+15	1,872,887,071	3,745,774,143	1,322,258,272	141,590,263	\$198,226,367,642,496	
T+16	3,745,774,143	7,491,548,286	2,644,516,545	283,180,525	\$396,452,735,284,992	

Of note is the following:

- Some governments were late to react to the spread of the virus. Given the higher infection rate, the models might suggest that we may have missed the opportunity to contain the virus and that public policy may move to management of the spread. While published reports in Canada peg the number of infections at 193 as of March 14, 2020,¹⁷ experts and policy makers predict that number could vastly increase from 30% to 70% of Canada's population without aggressive containment measures.¹⁸
- We have to take a "wait and see" approach whether or not the virus will subside in the summer months. If it doesn't, the healthcare and economic toll may be incalculable as the model suggests. For each day containment efforts are delayed, the potential healthcare and economic cost continues to increase exponentially if we extrapolate the annual cost of the flu in the United States.
- If response to containment remains slow and governments decide to take a "wait and see" approach, infection rates will continue to increase beyond the point of containment to a response focused on management. On the other hand, massive government intervention may be required to minimize what may already be widespread distribution of the virus that has yet to be reported. This may be one reason why China and Italy took drastic measures despite early infection rates that might have suggested the response was disproportional to the risk. One might assume they were aware of the exponential spread of the virus,

¹⁷ <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>

¹⁸ <https://www.theglobeandmail.com/canada/article-between-30-and-70-per-cent-of-canadians-could-be-infected-with/>

and the devastating long-term consequences if overwhelming action was not taken.

- On the other hand, the response in North America is quite another story. It appears some government officials in North America have been slower to respond. If governments wait too long to contain the spread, we can expect long-term consequences far exceeding the damage caused by the 2008 financial crisis. This may include prolonged quarantine measures such as the closure of public transit, transportation, and businesses in general. Indeed, our way of life may mirror the experience of Italy for an indefinite period of time if vast swaths of the general population have been infected. The toll on our healthcare system will be incalculable. If the infection rates have moved beyond containment and into the general population, drastic “social isolation” measures may be the only way to curtail further spread. This is why time is of the essence and there is no measure or cost too great to contain the spread. Any cost of intervention today is miniscule compared to the long-term fatality rates, healthcare, and economic consequences for prolonged delays related to exponential growth of the virus.

What Does This Mean for Commissionaires Great Lakes?

The impact to Commissionaires Great Lakes is already materializing.

- Schools have been closed for a period of time after the March break requiring management to provide work from home options to our HQ staff who may have childcare responsibilities they didn't anticipate as a result of the school closures. We don't know when schools will reopen.
- We have deployed our CGL 360 HQ Activity Trackers which allows management to monitor the activities of our HQ staff remotely. We have installed “Zoom” video conferencing to all our HQ staff if we are required to work from home for a prolonged period of time. This will enable us to ensure continuity of operations assuming our sites remain open.
- We have also taken steps to move our 24/7 Operations Center to provide our duty officers the option to work from home. We are in the process of routing phone lines to provide connectivity if this materializes.
- That being said, clients are beginning to shut down facilities and temporarily displacing our guards. Typically, clients would be required to provide us notice and would not be permitted to arbitrarily cancel security contracts. However, we are assuming any such closure would fall under the “force majeure” provisions granting clients the ability to suspend contracts as they see fit for factors outside their control. By extension, we anticipate more closures in the coming weeks/months as the situation with Coronavirus unfolds. We are working with our operations center to match new demand from clients with the available supply of guards. In the near term, we have cut our recruiting efforts by 50% with the anticipation that labour market disruptions will continue and permanent guards may need to be reassigned to short term assignments.
- Our Director of Human Resources is researching our employment obligations under the Employment Standards Act and is preparing a standard response if the need arises to initiate a temporary layoff of our workforce.
- While we have capacity to redeploy guards to our short-term sites, we may be facing a situation where a

large portion of our workforce has been displaced by site closures and work is not available for them. The Government of Canada removed the waiting period for affected workers to claim EI benefits in response to the Coronavirus on March 11, 2020. However, what we don't know is how many more of our sites may be affected. Worst case scenario as noted above, we are facing a potential mandatory "lockdown". We might be in a situation where we have to temporarily layoff our entire workforce. On the opposite end of the spectrum, we may have some minor disruptions and labour displacements that can be absorbed by our short-term assignments. Everything in between remains unknown and in a state of flux. For the purposes of planning, we need to assume a "worst case scenario" posture to ensure standard procedures are in place. This includes researching employment obligations under the Employment Standards Act, and providing our workforce with clear instructions on how to seek financial relief in the event we are required to temporarily layoff our workforce.

- We have begun assuming quarantine coverage for the Federal Government sites. We can expect additional call-ups to deploy our guards if the infection rates spread.

Estimated Duration

Here are the following scenarios we project based on levels of government intervention:

- **Slow Response** – Economic and operational impact can be 6 months and beyond.
- **Massive Response** – Economic and operational impact may be 2-3 months.

Summary

The preceding report is not intended to create unnecessary panic or alarm. It is incumbent on management and the board to take measured steps to mitigate our exposure during this time of unprecedented uncertainty. We believe we are taking appropriate steps and are taking our cues from expert sources such as the Centers for Disease Control (CDC) or Public Health Agency of Canada (PHAC) website.

If we had to provide a summary assessment of the situation, we would break our analysis into multiple components:

Situation Analysis		
Factor	Overview	Assessment
"Psychological Contagion"	The psychological aspect of the Coronavirus cannot be understated. Employees are afraid to come to work. Hoarding of essential supplies is rampant across the globe. Buildings are closing. The global markets are crashing. Indeed, the psychological aspect of the global pandemic is high and already having a material impact on our current business	

	operations.	
"Known Pathogen Spread In Canada"	The actual incidents of Coronavirus in Canada as a percentage of the total population is extremely low. Only a few hundred cases have been reported but the number is steadily growing. Even if an individual contracts the virus, the physiological impact can be mild for a large percentage of the population. However, those in high risk categories such as the elderly or those with underlying conditions have a much higher probability of dying as a result of the disease.	
"Unknown Pathogen Spread"	Since evidence shows that the Coronavirus can be spread without visible symptoms, the risk of transmission is extremely high. Some experts argue that widespread distribution of the virus has already occurred but remains unreported. ¹⁹ There are no tests to determine if an asymptomatic individual is a carrier of the virus. As a result, one may conclude that spread of the virus and massive government intervention to contain the spread is inevitable. Without coordinated efforts, large swaths of our population, including the elderly and those with underlying conditions, may be significantly impacted.	
"Pathogen Unknowns"	We know very little about coronavirus. Although we have access to published statistics, new information is emerging almost daily. For example, some experts have shown long term effects of coronavirus such as diminished lung capacity. ²⁰ Some have suggested that the impact is not isolated to seniors and vulnerable individuals. In France, over 50% of those in intensive care are below the age of 65. ²¹ Indeed, the person who first discovered coronavirus in Wuhan died of the disease at the age of 34. ²² Donald Rumsfeld once referred to these as the "known unknowns" which is exacerbating the "psychological contagion".	
"Misinformation & Social Media"	More importantly, there is a great deal of contradictory information related to containment coming from public officials in the US that is also exacerbating the situation.	

¹⁹ <https://www.businessinsider.in/science/news/scientists-say-at-least-500000-people-may-become-infected-with-the-coronavirus-in-wuhan-before-it-peaks-in-the-coming-weeks/articleshow/74074742.cms>

²⁰ <https://www.businessinsider.com/coronavirus-recovery-damage-lung-function-gasping-air-hong-kong-doctors-2020-3>

²¹ <https://www.businessinsider.com/half-of-french-coronavirus-intensive-care-patients-are-under-60-2020-3>

²² <https://www.forbes.com/sites/lisettevoytko/2020/02/06/wuhan-doctor-who-tried-to-warn-china-about-coronavirus-dies-of-the-disease-at-age-34/#7b3c6fb94207>

The following report was intended to provide a high-level understanding of the **worst-case** consequences associated with Coronavirus and its implications for our division. The situation is fluid and will require constant monitoring by our executive team and close communication with our board. We trust the report has been useful to understand the steps we've taken to mitigate our operational risk.



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