

Coronavirus Emergency Response: Risk Assessment and Risk Management

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The global spread of coronavirus is the one of this century's greatest threats. In North America, people have to reach back to the 9/11 attacks on the United States and the Second World War to draw useful comparisons. The United States Democratic candidate Bernie Sanders stated that "[t]he crisis we face from the coronavirus is on a scale of a major war, and we must act accordingly," he said. "The number of casualties may actually be even higher than what the armed forces experienced in World War II. In other words, we have a major, major crisis and we must act accordingly."¹

Prime Minister Trudeau has asked the country to stay at home to the extent possible: "As much as possible, stay home. Don't go out unless you have to, work remotely if you can. Let the kids run around a bit in the house."² The government has stepped up with financial relief on various levels.³ Prime Minister Trudeau holds a daily update on the coronavirus crisis each day in front of his home in Ottawa. The Government of Ontario announced that it is taking decisive action by making an order declaring an emergency under s. 7.0.1(1) of the *Emergency Management and Civil Protection Act*. This will legally require the closing of entities such as all bars and restaurants, except to the extent that such facilities provide takeout food and delivery.⁴ Premier Doug Ford announced [the shutdown of all non-essential services across the province](#) in an effort to slow the spread of COVID-19.⁵

Governments, corporations and organizations must implement risk assessment and risk management policies to combat coronavirus in the short term, but also in the long term.⁶ The flow of information on coronavirus that appears each day may be overwhelming to process. As the co-author of a book titled *Profiting From Risk Management and Compliance*,⁷ I have spent the last 15 years providing risk strategies to help organizations and governments to think about

¹ <https://www.politico.com/news/2020/03/12/bernie-sadners-coronavirus-127514>

² <https://www.macleans.ca/news/canada/trudeau-announces-latest-measures-to-fight-covid-19-full-transcript/>

³ The Federal government announced that it would cover 10 per cent of wages. On March 27, 2020, Prime Minister Trudeau announced that "it's becoming clear that we need to do much more, so we're bringing that percentage up to 75 per cent for qualifying businesses. This means that people will continue to be paid, even though their employer has had to slow down or stop its operations because COVID-19."

<https://www.macleans.ca/news/canada/trudeau-coronavirus-update-march-27-transcript/>

⁴ <https://news.ontario.ca/opo/en/2020/03/ontario-enacts-declaration-of-emergency-to-protect-the-public.html>

⁵ <https://toronto.ctvnews.ca/ford-says-list-of-essential-businesses-amid-covid-19-pandemic-is-adjustable-1.4865528>

⁶ "Coronavirus will linger after the pandemic ends. But it won't be as bad." By **Justin Lessler** associate professor of epidemiology at the Johns Hopkins University Bloomberg School of Public Health., March 13, 2020 at 6:00 a.m. EDT. https://www.washingtonpost.com/outlook/coronavirus-pandemic-immunity-vaccine/2020/03/12/bbf10996-6485-11ea-acca-80c22bbee96f_story.html

⁷ Archibald and Jull, *Profiting From Risk Management and Compliance* (Thomson Reuters 2019).

risk in both the short term and long term. This short article offers an outline of risk techniques that will be needed in the coming weeks and months.

Before turning to the dire realities of risk assessment and risk management, I want to offer a hint of optimism. While it is hard to imagine that there is any potential “profit” arising from the extreme risk measures that are and will be required to combat COVID-19, there may be some beneficial side effects of a general business shutdown in the short term. As the [coronavirus](#) spreads, so do startling satellite images showing a dramatic decrease in [air pollution](#) over quarantined areas. Satellite data [shared in early March](#) showed a steep decline in nitrogen dioxide levels over [China](#) between January and February as the epidemic's epicenter of Wuhan went into lockdown. Now, images [shared by the European Space Agency \(ESA\)](#) suggest that a similar thing happened in Italy, which had reported the second highest number of cases after China.⁸ Apart from systemic side effects, there are personal anecdotes of beneficial side effects. A physician who completed two weeks in self-isolation noted that he experienced initial depression related to not being able to work and serve his patients. But in his basement he made a plan that allowed him to use the isolation as a rare opportunity to “get the upper hand on many projects” that he hadn’t had time for.⁹ And we are spending more time with our families at home, which we have been told for years is something that we should have been doing all along.¹⁰

RISK ASSESSMENT

The basic and generally accepted model of risk assessment is divided into four activities:

- (i) identifying the potential hazard;
- (ii) drawing a dose/response curve;
- (iii) estimating the amount of human exposure; and
- (iv) categorizing the result.¹¹

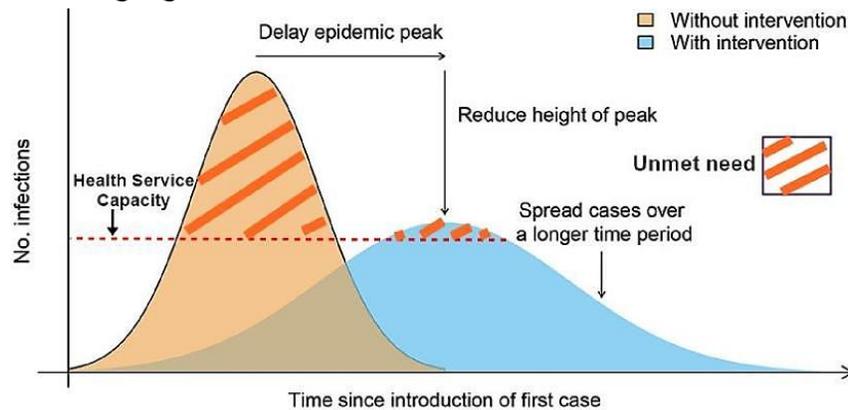
⁸ <https://www.ecowatch.com/coronavirus-italy-air-pollution-2645508891.html?rebelltitem=3#rebelltitem3>. The United States has now surpassed both countries with the number of coronavirus cases. In the United States, as of March 28, 2020, there were at least 102,702 cases of the novel coronavirus, according to CNN Health’s tally of US cases that are detected and tested in the country through public health systems. So far, 1,590 people have died in total in the US from coronavirus.

⁹ Michael Wansbrough, “Physician, Quarantine Thyself” *The Globe and Mail* March 19, 2020.

¹⁰ <https://www.dailymail.co.uk/news/article-2363193/No-time-family-You-Parents-children-spend-hour-day-modern-demands.html>

¹¹ S. Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation* (Cambridge: Harvard University Press, 1993), at p. 9, citing the Committee on the Institutional Means for Assessment of Risks to Public Health, *Risk Assessment in the Federal Government: Managing the Process* (1983), at pp. 18-19; M. Russell and M. Gruber, “Risk Assessment in Environmental Policy Making” (1987), 236 *Science* 286 (“Risk assessment at EPA proceeds in four steps: (i) hazard assessment, (ii) dose-response assessment, (iii) exposure assessment, and (iv) risk characterization”).

In the context of coronavirus, risk assessment attempts to flatten the curve as illustrated in the following Figure 1.¹²



The essential idea of flattening the curve is to delay the epidemic peak in a way that permits the health system to deal with patients over time in the best way, without being overwhelmed. The consequences of an overwhelmed health system are horrifying, requiring physicians to make decisions about who lives and who dies with limited access to equipment such as ventilators.¹³ The flattening of the curve is achieved by mechanisms such as remote work, social distancing, cancellation of events where there are gatherings of people and the closing of non-essential businesses.

The predicted length of measures such as social distancing and the shutdown of non-essential businesses is itself a risk assessment. Outbreak modelling shows that four weeks of intensive social distancing interventions will be insufficient to suppress a sharp rise in new cases, hospitalizations, and critically ill patients in intensive care. According to one model, the disruptive measures must continue for more than six months to slash the size of the epidemic peak by more than half and delay it long enough that a vaccine might become available.¹⁴

Risk assessment itself will be the source of debate between epidemiologists.¹⁵ While infectious disease experts say it is believed Canada had community transmission as early as March 1, 2020, governments did not bring in “physical” or “social” distancing guidelines until the middle of March, and emergency orders to close businesses until the tail end of March.¹⁶ The touchstone is the precautionary principle, clearly articulated in the 2006 investigation into Canada’s

¹² Dalton CB, Corbett SJ, Katelaris AL “Pre-emptive low cost social distancing and enhanced hygiene implemented before local COVID-19 transmission could decrease the number and severity of cases.” <https://ssrn.com/abstract=3549276>

¹³ Canadian doctors will soon be faced with the moral dilemma of deciding who lives and who dies by Gary Mason, The Globe and Mail (Ontario Edition) Mar 20, 2020

¹⁴ “Months of school closures, social distancing needed to fight pandemic: U of T research” by Kate Allen, Science and Technology Reporter, Wed., March 18, 2020 <https://www.thestar.com/news/gta/2020/03/18/months-of-school-closures-social-distancing-needed-to-fight-pandemic-u-of-t-research.html>

¹⁵ “Prominent scientist dares to ask: Has the COVID-19 response gone too far?” <https://www.cbc.ca/news/health/coronavirus-covid-pandemic-response-scientists-1.5502423>

¹⁶ <https://www.toronto.com/news-story/9915856-was-canada-quick-enough-to-curb-coronavirus-experts-say-there-was-community-spread-as-early-as-march-1/>

response to the SARS epidemic, written by Justice Archie Campbell of the Ontario Superior Court. “Where there is reasonable evidence of an impending threat to public health, it is inappropriate to require proof of causation beyond a reasonable doubt before taking steps to avert the threat,” Campbell wrote in a chapter called “Spring of Fear,”¹⁷ citing Justice Horace Krever, who presided over Canada’s tainted blood inquiry. It is worth re-reading that report now.

Transparency of data is essential for proper risk assessment. Singapore, along with Taiwan and Hong Kong, offers successful approaches, at least so far, in battling a pandemic that has infected more than 600,000 people and caused at least 28,000 deaths worldwide, according to Johns Hopkins University.¹⁸ Despite being hit months ago by the virus, these three Asian societies have recorded only a handful of deaths and relatively few cases, although they continue to face risks as people from emerging hot spots in the United States, Europe and elsewhere carry the virus with them.¹⁹ In Singapore, the details of where patients live, work and play are released quickly online, allowing others to protect themselves. Close contacts of patients are quarantined to limit the spread. South Korea took rapid, intrusive measures against COVID-19 – and they worked.²⁰

Disease control infringes on individual liberties,²¹ and raises novel privacy law issues.²² An excellent example of the novel use of technology is from Taiwan. When coronavirus cases were discovered on the [Diamond Princess cruise ship](#) after a stop in Taiwan, text messages were sent to every mobile phone on the island, listing each restaurant, tourist site and destination that the ship’s passengers had visited during their shore leave. Taiwanese officials say that they are tracking individuals only during the period of mandatory quarantine. “We are not using any advanced surveillance technology. It’s simply tracking based on their phone’s sim cards and their nearby base stations.”²³

Risk assessment will produce two competing calculations:

- Risk to health and safety from the virus; and

¹⁷ http://www.archives.gov.on.ca/en/e_records/sars/report/v1.html

¹⁸ <https://www.washingtonpost.com/world/2020/03/28/coronavirus-latest-news/>. These figures were calculated as of March 28 2020 and will regrettably increase.

¹⁹ <https://www.nytimes.com/2020/03/17/world/asia/coronavirus-singapore-hong-kong-taiwan.html>

²⁰ https://www.theguardian.com/commentisfree/2020/mar/20/south-korea-rapid-intrusive-measures-covid-19?CMP=Share_AndroidApp_Email

²¹ Fazal Khan, [“Ensuring Government Accountability During Public Health Emergencies”](#).

²² During the polio epidemic in the US, health departments used to publish the names of people with confirmed cases of the illness in the newspapers – a practice that would be far out of bounds today. But that didn’t stop people in the US from trying to find out information about the few cases of Ebola in the country during the 2014 outbreak. See <https://www.theverge.com/2020/3/12/21177129/personal-privacy-pandemic-ethics-public-health-coronavirus>

²³ <https://www.theguardian.com/world/2020/mar/13/how-taiwan-is-containing-coronavirus-despite-diplomatic-isolation-by-china>

- Risk to the economy from the cancellation of events, remote work, and impacts on the stock market and banking.²⁴

This is where the problem starts. In the early stages, governments and organizations will identify both risks to both health and the economy, but may lack direction on how to prioritize these two sectors, which may in fact compete. As a recent editorial in the Globe and Mail stated, the war against COVID-19 is a war on two fronts-health and economics. This is where risk management steps in.

RISK MANAGEMENT

Risk management is the process of weighing policy alternatives in light of the results of risk assessment, and selecting appropriate control options, including regulatory measures.²⁵ The use of matrix analysis is a core concept of risk management. The matrix is a mathematical model that was first applied in engineering. Rao Kolluru was a pioneer in the development of a matrix approach to risk management.²⁶ A key insight from this work is that a risk matrix provides priorities for action. The matrix identifies the issue that requires immediate action, and then sequentially identifies those issues with lesser priorities.

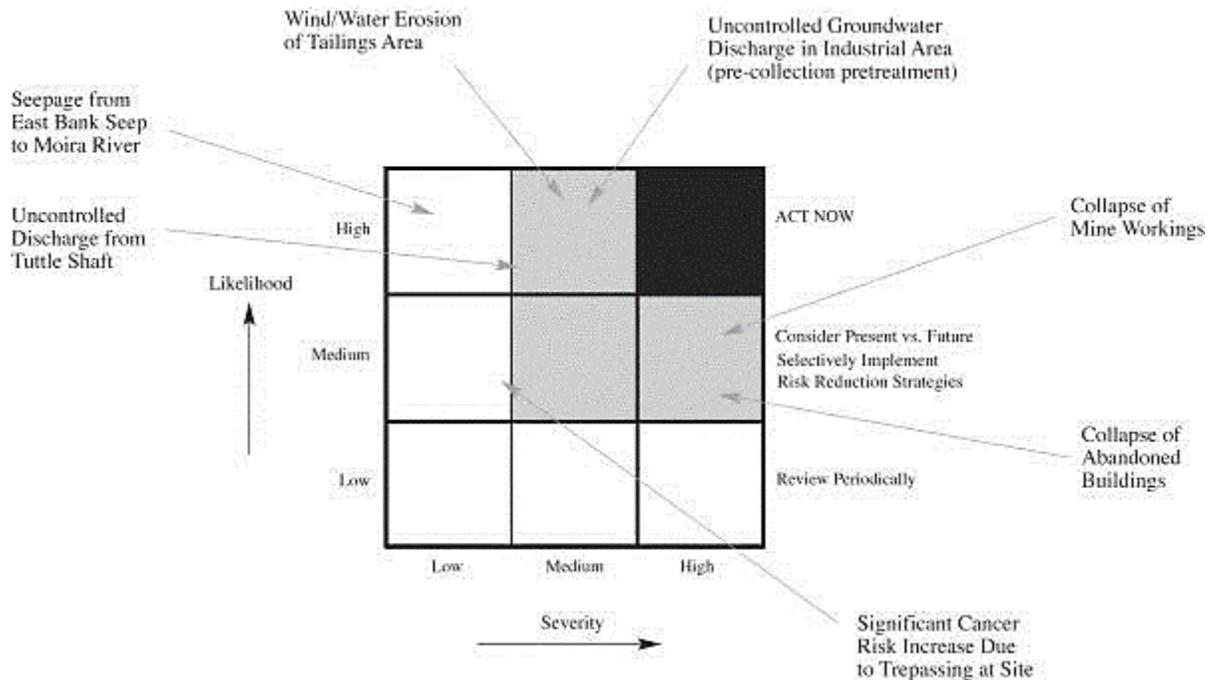
An example of a matrix derived from the work of Kolluru is shown in the next figure. This analysis was used in the Deloro Mine site case.²⁷

²⁴ "Pricing the Economic Risk of Coronavirus: a Delay in Consumption or a Recession?" Yosef Bonaparte University of Colorado at Denver March 5rd, 2020 <https://ssrn.com/abstract=3549597>

²⁵ D. Powell, "Risk-Based Regulatory Responses in Global Food Trade: A Case Study of Guatemalan Raspberry Imports into the United States and Canada, 1996-1998", in G.B. Doern et al., eds., *Risky Business: Canada's Changing Science-Based Policy and Regulatory Regime* (Toronto: University of Toronto Press, 2000), at p. 138.

²⁶ *Risk Assessment and Management Handbook: For Environmental, Health, and Safety Professionals*, Rao Kolluru, Editor in Chief (McGraw-Hill, Inc. New York, Toronto, 1996);

²⁷ Archibald and Jull, *Profiting From Risk Management and Compliance* (Thomson Reuters 2019), Int: 10:40: Risk Matrix: Basic Principles



In this example, there is a high likelihood (and foreseeability) of some discharges that cause relatively minimal harm, such as the “East Bank Seep” (which contained relatively small loadings of arsenic discharged into the river). The “act now” box directs which activities should receive priority. This permits a court to find that an entity has acted with due diligence, even where a small matter such as a seep has not been fully remediated at that time. This does not justify the discharge of arsenic or mean that the seep can be ignored. Rather, it recognizes that preventive efforts need to be in proportion to the potential gravity of the adverse effects that may occur. In this example the issue with the highest priority was the collapse of mine workings. Abandoned mine shafts posed a danger of a worker falling to his or her death, and the likelihood of such an event was moderate. Coupled with the most severe result of loss of human life, this put the remediation of the collapsed mine workings as the number one priority. In this case the defendant had acted to remediate the collapsed mine shafts as a number one priority and had acted in accordance with sound risk management.

The risk management matrix measures “precautions taken to avoid the event” versus “systems to measure potential gravity of impact”. The matrix is grounded in the concepts of negligence law that form the basis of due diligence. The equation of $PL=OC$, is a type of basic risk management. It premises that some losses will not attract liability. If the probability multiplied by the loss is less than the object times the cost, the conduct is blameless.

In the context of coronavirus, Health Canada has utilized a risk matrix to assist organizations to determine whether they should cancel mass gatherings and implementing the two metre distance rule between persons if the events go forward.²⁸

LEGAL DUTIES AND RISK MANAGEMENT

Section 217.1 of the *Criminal Code* requires that organizations take reasonable steps to prevent harm to workers and consumers arising from work:

217.1 Every one who undertakes, or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work.

Similar protective legislation exists in provincial occupational and health legislation. Legislation such as section 217.1 recognizes a threshold analysis in risk management. Threshold analysis was applied in the tragic case of *R. v. The Royal Canadian Mounted Police*.²⁹ On June 4, 2014 an assailant armed with an M305 semi-automatic .308 Winchester rifle and at least 60 rounds of ammunition murdered three general duty Royal Canadian Mounted Police members and wounded two others in Moncton, New Brunswick. The RCMP was charged with four offences pursuant to s. 124 of the *Canada Labour Code* alleging a failure to ensure the health and safety of every person employed by it by failing to provide appropriate use of force equipment, training and adequate supervision.

With respect to the defence of due diligence, the RCMP suggested that the magnitude of the risk must be measured alongside its frequency. The court was not attracted to that argument. Each business must examine the circumstances of risk that are particular to that business, unless there is a direct government order requiring a shutdown of that type of business (such as the Government of Ontario order that legally requires the closing of restaurants, except to the extent that such facilities provide takeout food and delivery).³⁰ The problem with government recommendations (that are not orders) to “work remotely if you can” is that it downloads risk management to organizations.

The type of matrix provided by Health Canada may be of assistance. There are some mitigation measures that may be taken that would be factored into what is reasonable. For example, a store that must sell essential food supplies might consider the following steps:

²⁸ <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/mass-gatherings-risk-assessment.html>

²⁹ *R. v. The Royal Canadian Mounted Police*²⁹ (2017 CarswellNB 577, 2017 NBPC 6 (N.B. Prov.)).

³⁰ <https://news.ontario.ca/opo/en/2020/03/ontario-enacts-declaration-of-emergency-to-protect-the-public.html>

- Limit the number of people in stores at any given time as well as asking customers to keep a certain distance from each other while shopping to reduce the risk of making one another sick;³¹
- Rotate employees for shorter shifts;
- Consider health vulnerability of classes of employees based on age and other health demographics.

At a higher level of exposure, the risk measures must increase proportionately. For example, protective suits and goggles are now required equipment for crew on Ukraine International Airlines, a measure of how far some in the airline industry are going to protect workers during the global emergency.³²

Toronto Law Journal readers must conduct their own risk assessment, given that the Government of Ontario has deemed law offices and paralegal offices as essential workplaces. As such, law offices and paralegal offices are permitted to remain open, to address instances when remote business practices are not feasible. The Law Society of Ontario, which successfully implemented a work at home plan for its own employees effective March 16, 2020, encourages all law offices and paralegal offices to do the same by operating remotely and virtually wherever feasible.³³

Creative thought is called for. For example, if a law office has to access physical files, this can be coordinated after hours or at times when people will not be in close proximity to each other.

EMERGENCY LEGISLATION

The Federal government has indicated that the *Emergencies Act* is only a last resort.³⁴ Under the Federal *Emergencies Act*,³⁵ once a public welfare emergency is declared, the following orders can be made, which would give more guidance and direction for both non-essential and essential industries:

8 (1) While a declaration of a public welfare emergency is in effect, the Governor in Council may make such orders or regulations with respect to the following matters as the Governor in Council believes, on reasonable grounds, are necessary for dealing with the emergency:

(a) the regulation or prohibition of travel to, from or within any specified area, where necessary for the protection of the health or safety of individuals;

³¹ Loblaws is doing this, see https://s1.q4cdn.com/326961052/files/doc_news/2020/03/C19-V2.pdf

³² <https://www.cbc.ca/news/health/flight-attendants-protective-suits-1.5513439>

³³ <https://lso.ca/news-events/news/corporate-statement-re-covid-19>

³⁴ <https://www.iheartradio.ca/am-1150/pm-trudeau-says-emergency-measures-are-under-consideration-1.10856298>

³⁵ <https://laws-lois.justice.gc.ca/eng/acts/e-4.5/index.html>. And see [How Canada's lockdown powers work](#), The Globe and Mail (Ontario Edition) Mar 17, 2020.

(b) the evacuation of persons and the removal of personal property from any specified area and the making of arrangements for the adequate care and protection of the persons and property;

(c) the requisition, use or disposition of property;

(d) the authorization of or direction to any person, or any person of a class of persons, to render essential services of a type that that person, or a person of that class, is competent to provide and the provision of reasonable compensation in respect of services so rendered;

(e) the regulation of the distribution and availability of essential goods, services and resources;

(f) the authorization and making of emergency payments;

(g) the establishment of emergency shelters and hospitals;

(h) the assessment of damage to any works or undertakings and the repair, replacement or restoration thereof;

(i) the assessment of damage to the environment and the elimination or alleviation of the damage; and

(j) the imposition

(i) on summary conviction, of a fine not exceeding five hundred dollars or imprisonment not exceeding six months or both that fine and imprisonment, or

(ii) on indictment, of a fine not exceeding five thousand dollars or imprisonment not exceeding five years or both that fine and imprisonment,

for contravention of any order or regulation made under this section.

The declaration of an emergency raises many constitutional issues beyond this short paper. It is worthy of note that some legal academics have considered these implications in the context of a pandemic and some model statutes offer guidance.³⁶ There is a delicate balance between orders such as quarantine and individual liberties. Moreover, the most vulnerable citizens may

³⁶ Preventing National Vulnerability: How a Connecticut Constitutional Amendment Will Balance Individual Liberty And Allocate State Power During a Public Health Emergency By Katherine G. Lovallo
<https://ssrn.com/abstract=3427430>, 5/22/2019

be impacted by pandemics.³⁷ Any decision to declare a public welfare emergency³⁸ should be science based, and not based on political considerations.

Some physicians are arguing that all governments should act now and shut down all non-essential business.³⁹ Some States in the United States have issued shut down orders.⁴⁰ The Canadian government is presently using fiscal and economic incentives to encourage companies to transition to manufacturing medical products in the battle against COVID-19. Prime Minister Trudeau said the industrial strategy will allow companies already making sanitizers, masks and other equipment to scale up quickly, while mobilizing others to shift production to items that are in high demand.⁴¹ Canada is making unprecedented use of the federal *Quarantine Act* in a bid to curb the spread of the COVID-19 pandemic. All travellers returning to Canada are now legally required to go into self-isolation for 14 days rather than simply urged to do so.⁴²

INFRASTRUCTURE AND LONG TERM PLANNING

The coronavirus has larger implications for our infrastructure going forward, and government policy with respect to that infrastructure. In this short paper, I will use the telecommunications sector as an example.

Telecommunication infrastructure will be a vital part of the network to allow people to stay connected. Telecommunications is essential in times of emergency. In the Second World War, Canadian signals units operated wireless and telephone equipment to allow the various parts of the army to communicate with each other in the field.⁴³ Telecom is essential to security networks, demonstrated by events such as the attack on Pearl Harbour⁴⁴ and the 9/11 attack.⁴⁵

³⁷ Improving Outcomes for Vulnerable Populations During Adverse Events *By Laura Taylor*
<https://ssrn.com/abstract=3532787>

³⁸ “Coronavirus: How the Emergencies Act could help Canada’s struggling economy” by Emerald Bensadoun Global News, posted March 17, 2020 5:51 pm.

³⁹ <https://twitter.com/dockaug/status/1239540961409216514?s=11>

⁴⁰ Gov. Gavin Newsom on Thursday ordered Californians to stay at home, marking the first mandatory restrictions placed on the lives of all 40 million residents in the state’s fight against the novel coronavirus. The mandatory order allows Californians to continue to visit gas stations, pharmacies, grocery stores, farmers markets, food banks, convenience stores, takeout and delivery restaurants, banks and laundromats. People can leave their homes to care for a relative or a friend or seek healthcare services.
<https://www.latimes.com/california/story/2020-03-19/gavin-newsom-california-1-billion-federal-aid-coronavirus>

⁴¹ <https://www.cbc.ca/news/politics/trudeau-covid19-coronavirus-medical-equipment-1.5504149>

⁴² <https://nationalpost.com/pmnl/news-pmnl/canada-news-pmnl/what-you-need-to-know-about-the-quarantine-act-as-isolation-becomes-mandatory-for-returning-travellers>

⁴³ <https://www.junobeach.org/canada-in-wwii/articles/radio-communications/>

⁴⁴ The evidence suggests that better and quicker communication between various elements of the U.S. intelligence apparatus could have saved lives by providing warning of the impending attack. See North Carolina Journal of Law & Technology, Volume 18, Issue 2: December 2016; “Is Cyberattack the Next Pearl Harbor?” by Lawrence J. Trautman at page 250.

⁴⁵ The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States 155 (2004), <http://www.9-11commission.gov/report/911Report.pdf>

Now with the coronavirus pandemic, telecommunications companies are thrust back into a central role. As people work from home, some are asking whether the internet can handle it?⁴⁶ For example, Telus Corp. has waived data caps, and the company announced that it will be using “flexible payment options” for customers who can’t pay their bills due to a disruption in income. “We don’t want anyone to worry about not being able to pay their bill on time if they have been financially affected by the crisis,” a Telus spokesperson said. Telus is also waiving roaming charges in China and Italy, and other countries particularly hard hit by the virus, because Canadians in those places may not be able to get home.⁴⁷

The coronavirus pandemic and centrality of telecommunications puts a spotlight on the regulation of the internet and the “net neutrality” debate.⁴⁸ One debate in this context is whether a “pay for priority” for internet “fast lanes” ought to be permitted and/or regulated.⁴⁹

I advance three tenets of risk management and justice to guide government policy:

1. Government regulation should ensure that there is the equivalent of an “emergency lane” on broadband networks, for health, safety and security-related traffic;

The focus of any governmental authority will be on ensuring that there is the equivalent of an “emergency lane” on broadband networks, for health, safety and security-related traffic. This emergency lane is more critical than ever in the coronavirus pandemic. As more people work from home and use the internet for recreation, it is essential that health and safety providers not be slowed down in emergency situations.⁵⁰

2. Government policy should attract investment in the market that will maintain and enhance the infrastructure for the “emergency lane” in the future;

Present government policy has been oriented to lowering cell phone costs to consumers. While this may be a laudable goal, it ignores the necessity to attract capital to the industry to build the infrastructure of the future that can be used in pandemics. For example, 5G technology can be used to facilitate some remote surgeries.

⁴⁶ *So We’re Working From Home. Can the Internet Handle It?*

<https://www.nytimes.com/2020/03/16/technology/coronavirus-working-from-home-internet.html>

⁴⁷ <https://business.financialpost.com/telecom/canadian-telecoms-waive-roaming-and-long-distance-fees-suspend-data-caps-in-response-to-coronavirus>

⁴⁸ Jull and Schmidt, “From the Slow Lane to the Fast Lane of Broadband: Application of a Theory of Justice” 19th Biennial Conference of the International Telecommunications Society (Budapest, Hungary, September 18-21, 2011).

⁴⁹ The United States Subcommittee on Communications and Technology, chaired by Rep. Marsha Blackburn (R-TN), held a hearing on April 17, 2018 examining data prioritization and how it is critical to the internet’s function and growth. In her opening remarks, Chairman Blackburn stated: “It may be an uphill climb, but what we are trying to do with this hearing is to *leave aside the simplistic ‘fast lane’* talking points and kick off a more realistic discussion on the subject.” See <https://energycommerce.house.gov/news/press-release/subcommtech-examines-current-and-future-use-of-data-prioritization>; Blevins, “The Use and Abuse of light touch internet regulation” (2019), 99 Boston Univ. L. Rev. 177.

⁵⁰ See <https://theconversation.com/creating-a-high-speed-internet-lane-for-emergency-situations-79151>

Through 5G, surgeons can use specialised haptic feedback gloves to operate on a patient via a robotic intermediary, potentially from thousands of miles away. The gloves are able to give a surgeon the same sense of touch as if they were standing over the patient, while video from the operating theatre is streamed directly to them in real-time.⁵¹

A leading CEO of a Canadian telecom company stressed the need to enhance competition: “If we want to evolve the regulatory model, let’s build on facilities-based competition and liberalise our foreign ownership rules. Let’s open the market to foreign investment and allow market forces to continue to drive the best consumer outcomes.”⁵²

One commentator has made the following prediction: “As the pandemic keeps Canadians glued to their smartphones at home and abroad, Ottawa’s decision earlier this month to ask the Big Three wireless carriers to reduce prices on mid-tier service (unlimited talk-and-text plans that offer two, four or six gigabytes of data) by 25 per cent over the next two years appears increasingly out of step with our growing data dependence and the coming 5G reality.”⁵³

3. Social and economic inequalities in any “pay for priority” internet fast lanes are just only if they result in compensating benefits for everyone, and in particular for the least advantaged members of society.⁵⁴

It is possible that the coronavirus may mean that we will be working at home for many months.⁵⁵ If this is the case, new and innovative markets for internet access need to be considered. Applied to the pay for priority debate, this principle would sanction the existence of inequalities created by pay for priority in the internet, so long as the inequalities make the worst-off members of society as well off as possible. Provided that the competitive struggle yields outcomes (in terms of innovation, diffusion of services, pricing) that benefit the least advantaged, then competition will be unexceptionable. Using the fast lane toll road analogy, this pay for priority road has the effect of diverting traffic away from the (non-toll) highways, thus reducing traffic congestion and improving the conditions of those who cannot afford to regularly travel on the toll road.

⁵¹ <https://www.medicaldevice-network.com/features/5g-remote-surgery/>

⁵² Darren Entwistle, President and CEO of TELUS, remarks to CRTC: <https://crtc.gc.ca/eng/transcripts/2020/tt0220.htm> at 3630.

⁵³ “Coronavirus crisis highlighting Ottawa’s misguided approach to reducing wireless prices” Rita Trichur <https://www.theglobeandmail.com/business/commentary/article-coronavirus-crisis-highlighting-ottawas-misguided-approach-to/>

⁵⁴ John Rawls in *A Theory of Justice* (Cambridge, Mass.: Harvard University Press, 1971, Jull and Schmidt, “From the Slow Lane to the Fast Lane of Broadband: Application of a Theory of Justice” 19th Biennial Conference of the International Telecommunications and Society (Budapest, Hungary, September 18-21, 2011) and more generally see Archibald and Jull, *Profiting From Risk Management and Compliance* (Thomson Reuters, 2019) at INT:10:130 – Application of Justice as Fairness to Matrix Thresholds and Priorities

⁵⁵ It is possible, even most likely, that after U.S. cases peak, Americans will still have to maintain some measures – such as isolating the infected, constant hand-washing, some degree of social distancing – until a viable vaccine is developed, which could take 12 to 18 months: <https://www.washingtonpost.com/health/2020/03/16/social-distancing-coronavirus/>

It may be appropriate, in the short term, to subsidize community-based groups so they can have some access to the fast lane. For example, libraries, schools and non-profit organizations that further the interests of disadvantaged groups might fall into this category within a “justice as fairness” framework.

RISK AND A THEORY OF JUSTICE

Risk is perceived differently depending on whether the lens used is personal versus a more general risk to society:

Psychologists have long known that people tend to see their own lives through rose-colored glasses: they think they're less likely than the average person to become a victim of divorce, layoff, accident, illness, or crime. But change the question from the people's *lives* to their *society*, and they transform from Pollyanna to Eeyore. Public opinion researchers call it the Optimism Gap.⁵⁶

To the extent that governments must prioritise health versus the economy, risk management requires an underlying theory of justice. John Rawls in *A Theory of Justice*,⁵⁷ constructed his theory of “justice as fairness” by utilizing an imaginary society that would be created by an original agreement where “no one knows his place in society, his class position or social status, nor does anyone know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like”. Hence, the principles of justice are chosen behind a “veil of ignorance” by “free and rational persons concerned to further their own interests” and because they are in an initial position of equality, the final agreement reached will be “fair”.

From behind the veil of ignorance what rules would you choose, not knowing whether or not you might fall into the class of persons more vulnerable to suffer serious consequences or even death from coronavirus?

The first rule that you would choose is that regulatory measures must promote human health and safety as a first priority. This rule also supports the trumping of the axis “systems to measure potential gravity of impact” over the axis “precautions taken to avoid the event”.⁵⁸ In other words, the health of our citizens must take precedence over the economy in terms of priority ranking.

As lawyers we can help to combat COVID-19 by advising of the legal solutions to a wide array of problems. A guiding principle is that our advice should promote justice as fairness.

⁵⁶ Stephen Pinker, *Enlightenment Now: The case for reason, science, humanism and progress*, (New York: Penguin, 2018), Chapter 4: Progressophobia, pp. 6-7.

⁵⁷ (Cambridge, Mass.: Harvard University Press, 1971).

⁵⁸ Archibald and Jull, *Profiting From Risk Management and Compliance* (Thomson Reuters 2019), INT:10:130 – Application of Justice as Fairness to Matrix Thresholds and Priorities