

A Perspective on Living with COVID-19

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COVID-19 update as we start to leave our cocoons. The purpose of this post is to provide a perspective on the intense but expected anxiety so many people are experiencing as they prepare to leave the shelter of their homes. My opinions are not those of my employers and are not meant to invalidate anyone else's – they simply are my perspective on managing risk.

In March, we did not know much about COVID-19 other than the incredibly scary news reports from overrun hospitals in China, Italy, and other parts of Europe. The media was filled with scary pictures of chest CT scans, personal stories of people who decompensated quickly with shortness of breath, overwhelmed health care systems, and deaths. We heard confusing and widely varying estimates for risk of getting infected and of dying – some estimates were quite high.

Key point #1: The COVID-19 we are facing now is the same disease it was 2 months ago. The “shelter at home” orders were the right step from a public health standpoint to make sure we flattened the curve and didn't overrun the health care system which would have led to excess preventable deaths. It also bought us time to learn about the disease's dynamics, preventive measures, and best treatment strategies – and we did. For hospitalized patients, we have learned to avoid early intubation, to use prone ventilation, and that remdesivir probably reduces time to recovery. We have learned how to best use and preserve PPE. We also know that several therapies suggested early on probably don't do much and may even cause harm (ie, azithromycin, chloroquine, hydroxychloroquine, lopinavir/ritonavir). But all of our social distancing did not change the disease. Take home: We flattened the curve and with it our economy and psyches, but the disease itself is still here.

Key point #2: COVID-19 is more deadly than seasonal influenza (about 5-10x so), but not nearly as deadly as Ebola, Rabies, or Marburg Hemorrhagic Fever where 25-90% of people who get infected die. COVID-19's case fatality rate is about 0.8-1.5% overall, but much higher if you are 60-69 years old (3-4%), 70-79 years old (7-9%), and especially so if you are over 80 years old (CFR 13-17%). It is much lower if you are under 50 years old (<0.6%). The infection fatality rate is about half of these numbers. Take home: COVID-19 is dangerous, but the vast majority of people who get it, survive it. About 15% of people get very ill and could stay ill for a long time. We are going to be dealing with it for a long time.

Key point #3: SARS-CoV-2 is very contagious, but not as contagious as Measles, Mumps, or even certain strains of pandemic Influenza. It is spread by respiratory droplets and aerosols, not food and incidental contact. Take home: social distancing, not touching our faces, and good hand hygiene are the key weapons to stop the spread. Masks could make a

difference, too, especially in public places where people congregate. Incidental contact is not really an issue, nor is food.

What does this all mean as we return to work and public life? COVID-19 is not going away anytime soon. It may not go away for a year or two and may not be eradicated for many years, so we have to learn to live with it and do what we can to mitigate (reduce) risk. That means being willing to accept *some* level of risk to live our lives as we desire. I can't decide that level of risk for you – only you can make that decision. There are few certainties in pandemic risk management other than that fact that some people will die, some people in low risk groups will die, and some people in high risk groups will survive. It's about probability.

Here is some guidance – my point of view, not judging yours:

1. People over 60 years old are at higher risk of severe disease – people over 70 years old, even more so. They should be willing to tolerate less risk than people under 50 years old and should be extra careful. Some chronic diseases like heart disease and COPD increase risk, but it is not clear if other diseases like obesity, asthma, immune disorders, etc. increase risk appreciably. It looks like asthma and inflammatory bowel disease might not be as high risk as we thought, but we are not sure - their risks might be too small to pick up, or they might be associated with things that put them at higher risk.

People over 60-70 years old probably should continue to be very vigilant about limiting exposures if they can. However, not seeing family – especially children and grandchildren – can take a serious emotional toll, so I encourage people to be creative and flexible. For example, in-person visits are not crazy – consider one, especially if you have been isolated and have no symptoms. They are especially safe in the early days after restrictions are lifted in places like Madison or parts of major cities where there is very little community transmission. Families can decide how much mingling they are comfortable with - if they want to hug and eat together, distance together with masks, or just stay apart and continue using video-conferencing and the telephone to stay in contact. If you choose to intermingle, remember to practice good hand hygiene, don't share plates/forks/spoons/cups, don't share towels, and don't sleep together.

2. Social distancing, not touching your face, and washing/sanitizing your hands are the key prevention interventions. They are vastly more important than anything else you do. Wearing a fabric mask is a good idea in crowded public place like a grocery store or public transportation, but you absolutely must distance, practice good hand hygiene, and don't touch your face. Wearing gloves is not helpful (the virus does not get in through the skin) and may increase your risk because you likely won't wash or sanitize your hands when they are on, you will drop things, and touch your face.

3. Be a good citizen. If you think you might be sick, stay home. If you are going to cough or sneeze, turn away from people, block it, and sanitize your hands immediately after.

4. Use common sense. Dial down the anxiety. If you are out taking a walk and someone walks past you, that brief (near) contact is so low risk that it doesn't make sense to get

scared. Smile at them as they approach, turn your head away as they pass, move on. The smile will be more therapeutic than the passing is dangerous. Similarly, if someone bumps into you at the grocery store or reaches past you for a loaf of bread, don't stress - it is a very low risk encounter, also - as long as they didn't cough or sneeze in your face (one reason we wear cloth masks in public!).

5. Use common sense, part II. Dial down the obsessiveness. There really is no reason to go crazy sanitizing items that come into your house from outside, like groceries and packages. For it to be a risk, the delivery person would need to be infectious, cough or sneeze some droplets on your package, you touch the droplet, then touch your face, and then it invades your respiratory epithelium. There would need to be enough viral load and the virions would need to survive long enough for you to get infected. It could happen, but it's pretty unlikely. If you want to have a staging station for 1-2 days before you put things away, sure, no problem. You also can simply wipe things off before they come in to your house - that is fine is fine too. For an isolated family, it makes no sense to obsessively wipe down every surface every day (or several times a day). Doorknobs, toilet handles, commonly trafficked light switches could get a wipe off each day, but it takes a lot of time and emotional energy to do all those things and they have marginal benefits. We don't need to create a sterile operating room-like living space. Compared to keeping your hands out of your mouth, good hand hygiene, and cleaning food before serving it, these behaviors might be more maladaptive than protective.

6. There are few absolutes, so please get comfortable accepting some calculated risks, otherwise you might be isolating yourself for a really, really long time. Figure out how you can be in public and interact with people without fear.

We are social creatures. We need each other. We will survive with and because of each other. Social distancing just means that we connect differently. Being afraid makes us contract and shut each other out. I hope we can fill that space created by fear and contraction with meaningful connections and learn to be less afraid of each other.