

Dear Anglican Family,

We have entered into difficult times. In what follows, I will attempt to briefly outline some of the medical details of this global pandemic.

The virus currently sweeping across the globe has never been seen before. This “novel coronavirus” has a special name: Severe Acute Respiratory Syndrome Coronavirus 2” (SARS-CoV-2A), and it causes a *disease* called Coronavirus Disease 2019 (COVID-19). Thinking back to our biology classes, a virus is a tiny organism made up of only a protein shell and a genetic code: DNA or RNA. That is it! This limited structure means that viruses cannot reproduce on their own. However, they are able to hijack other organisms like humans in order to replicate and spread. There are many kinds of viruses out there in the world – for instance influenza (“the flu”), HIV, and hepatitis B are all viruses. The family of “*Coronaviridae*” (Coronavirus) has different members. You know how in the family of “cats” there are small, friendly house cats and big, dangerous lions? Well, coronavirus has more and less dangerous members, too. For instance, one ordinary kind of coronavirus causes the common cold (the fluffy house cat of coronaviruses!). So, nearly all of us have had a coronavirus infection at some point in our lives.

What makes this coronavirus different?

A few months ago, this novel coronavirus (the dangerous *lion* of coronaviruses) is thought to have jumped from animals to humans for the first time. Because no human immune system (the infection-fighting army inside our bodies) had seen it before, no human has any natural immunity to it. Therefore, if we are exposed to someone who has COVID-19, there is a high likelihood we will contract it ourselves. In other words, COVID-19 is extremely *contagious*. In fact, it is twice as contagious as influenza (“the flu”). If you have the flu, you are likely to infect one other person. However, if you have COVID-19 you are likely to give it to at least two people on average (if you are not distancing yourself from other people).

Another unique characteristic of COVID-19 is its long “incubation time.” This means that you can carry the coronavirus inside of you and be transmitting it to other people for multiple days before you develop any symptoms or even know you have it at all. The average number of days between contracting the virus and developing symptoms is 5 days, yet some people have the virus for *14 days* before showing any symptoms. This is scary, because that entire time the infected person could be spreading it to other people with whom they are in contact. In contrast, symptoms from the flu usually arise 1-2 days after being infected by the virus.

COVID-19 is also unique in that it can make people very sick. Again, to compare it to the flu: 2% of people with the flu have to go to the hospital, whereas 20% of people with COVID-19 are being hospitalized. *One out of every 1000 people* with the flu die, but *one out of every 100 people* with COVID-19 die. This is a big difference. We think that

COVID-19 is 10 times deadlier than influenza. Now, to be clear, it is likely that these numbers will get less scary once we start testing more people. Right now, the United States is making more tests as fast as possible, but only testing people who are already sick. So, it makes it seem like the virus is more dangerous than it actually is, since we only test the people who are already really sick (but not the cases where people only have mild symptoms)! Once we roll out more testing over the next 1-3 weeks, don't be too alarmed when suddenly there are lots of new "cases," as many of those cases already existed, but we just didn't know about them.

What are the symptoms of COVID-19?

It is similar to the flu. COVID-19 makes you feel crummy. You may have a headache. You will likely have a fever. You may also have a cough, which may start mild and then slowly get worse. In addition, you may feel short of breath. Shortness of breath (feeling like you cannot catch your breath) is the most serious symptom. Shortness of breath is the symptom that can make you very sick and make you need to go to a hospital. All of these symptoms come on more slowly than the flu (flu symptoms come on fast and makes you feel like you got hit by a truck). COVID-19 comes on more slowly over several days with a cough, fever, feeling gross, and then, if it gets bad, shortness of breath.

Who should get tested?

Most importantly, if you start feeling sick *DO NOT COME IN CONTACT WITH ANYONE ELSE*. Isolate yourself and call on friends and family to bring you food and water. Call your doctor and ask them if you should be tested for COVID-19. However, if you start feeling like you cannot breathe very well, are throwing up and feeling dehydrated, or if you start feeling very weak, that is when you need to see a doctor. If you start feeling extremely sick, especially if you are having trouble breathing, go to an Urgent Care or the Emergency Department immediately. Try calling ahead so they are prepared to see you in isolation and determine if you have COVID-19 or not. These testing recommendations might change once more tests are made and testing becomes easier.

Who is most at risk? Older people above 60 and especially those above 80 years old, as well as people with immune systems that don't work very well, (like people getting treated for cancer, anyone taking steroids, or people who have had an organ transplant) are most at risk for getting very sick. Young adults are less likely to get severely ill. That being said, some newer research from France, is showing that even younger people between the ages of 20-40 can get very sick and need to be hospitalized. Bottom line: nobody wants to get COVID-19.

What about kids? For reasons we don't fully understand, children don't seem to get as sick from COVID-19, although babies *are* susceptible to getting very sick. The fact that kids are not getting very sick is both good and bad. It is good because we don't have to

worry as much about children. It is bad because kids can become “vectors” for COVID-19. This means they can be a “silent carrier,” having no symptoms but transmitting it to people with whom they come into contact. Still, your children (if you have them) probably do not have COVID-19. Remember to still hug them. They need to know they are loved in these scary times (just like the rest of us!).

What should we do?

Right now, scientists are working hard trying to create effective treatments, or a vaccine. In the meantime, the best thing we can all do is stay away from other people. You’ve heard this called “social distancing.” I think it should be called “physical distancing,” because that’s what it really is. Keep your body away from other bodies. Do not get closer than 6 feet to any other person who does not live in your house unless it is absolutely *essential*. And I mean *absolutely essential*. Food, water, shelter, taking care of someone who only has you as their caregiver, and going to work if you are a doctor or nurse are things that are essential. Not much else is. When you do go out of your home for these essential things, group your outings, wash your hands often, and avoid touching your face. Make sure to daily wipe down common surfaces in your home to get rid of viruses that might be lurking.

You might be wondering how the virus gets from person to person. Well, the virus is transmitted by coughing, sneezing or breathing. Then, it travels about 3 feet before settling on surfaces. The major way that people become infected is through direct contact with those secretions (“secretions” are the stuff you cough or breath out). The virus can enter your body through three openings: your eyes, nose and mouth. The most common way for people to get exposed is by touching “contaminated” surfaces. It appears that the virus can live on hard surfaces for three days and cardboard for 24 hours. So, cleaning surfaces is essential. In addition, people need to protect their hands and faces. Soap kills the virus after 20 seconds on the hands. Alcohol-based hand sanitizers kill the virus too, as long as they have 60% alcohol. Frequent handwashing and maintaining physical distance of 6 feet is the way to keep yourself safe.

As a society, the thing we are really worried about is that a surge of very sick patients will overwhelm all hospitals. We estimate that in time, probably 60% of the United States will contract COVID-19, but we are attempting to slow down new cases of COVID-19 so that healthcare workers have time to care for each new patient individually. This is called “flattening the curve.” If we do not flatten the curve then every hospital bed will be filled up with COVID-19 patients and many of our hospitals’ resources will be tied up. So, for instance, if you were to get in an accident, there may be no room available in the hospital for you. This is what is happening right now in Italy, which is why we want to prevent a surge in cases by practicing *physical distancing*. While isolation and quarantine may feel like a disconnection from those you love, it is *out of love for others* that you can care for them in this way.

How long will this all last?

We really do not know. The next 3-6 weeks will tell us how bad this pandemic is going to be. Some experts are saying that COVID-19 will be the worst over the next 1-3 months, calm down over the summer, and then possibly come back in the winter. These experts are anticipating 18 months of at least partial isolation and quarantine. While this sounds scary and insanely long, I hope and pray that it is less serious and that in two months we can begin getting back to our normal lives. Only time will tell.

Resources you can trust:

Center for Disease Control website: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Johns Hopkins University coronavirus website: <https://coronavirus.jhu.edu/>

A word of encouragement.

Finally, I want to say a word of encouragement. As Christians we believe that our hope does not lie in the words of men or women. Rather, our hope rests in the promise of eternal life secured for us by our Lord Jesus Christ. Don't get me wrong, I *greatly* struggle to hold on to hope in times like this; but thankfully, we know that the redeeming power of God does not depend on the strength of our faith at any moment, for as the Psalms teach us, our faith in God's promises may ebb and flow. No, the redeeming power of God in our lives depends on the death-defeating death and resurrection of our Lord and Savior Jesus Christ. This is not the first plague or pestilence through which Christians have suffered. And, it will not be the last. In these difficult times let us lean on each other, pray for each other, and show the world that a life of anxiety and fear is not the only option.

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