

Per request of Dean Valiotis

As a Microbiologist with a degree in Public Health, I will try to explain the latest on the Coronavirus COVID-19 (Now known as SARS-CoV-2), and relay some of the information on prevention already in the Public Domain based on CDC advisory. Everyday, we are learning new information about this truly novel virus infecting the human population, especially regarding the communicability and how contagious it is. Coronaviruses are a large family of viruses that include the common cold virus, as well as more well known viruses that are more virulent such as SARS, MERS, and now SARS-CoV-2 which is currently in the process of becoming a pandemic (worldwide).

This virus started out as a zoonosis, a disease normally found in non-human animals, and has crossed the species barrier and has now infected humans. Humans can now spread it to other humans by direct close contact and droplet transmission. With the current numbers as you can see in the news, appear to be growing fast, we know that it is not as contagious as measles or whooping cough. However, since it is a new virus, we will know more about the epidemiology of this disease as time goes by, and unfortunately, with more cases. At this point in time, the Case Fatality Rate is at about 4% based on the latest numbers March 1<sup>st</sup> 2020.

As with any infectious disease, the elderly, children, and the immunocompromised are most at risk for higher mortality rates. Healthcare workers and caretakers of individuals diagnosed with SARS-CoV-2 are at risk of getting infected due to the high exposure. Overseas travelers are also at risk and are now being interviewed and assessed for quarantine as seen necessary.

The incubation period which is the period from initial exposure to the time of the appearance of the first symptoms is approximately 2 weeks. During this period, an infected asymptomatic individual may be more contagious closer to the end of the 14 days. However, if a person has already developed the symptoms, the disease is more readily transmitted between the person and others coming into close contact.

Transmission is by direct contact with the bodily fluids such as nasal secretions and mucus or saliva, and by droplet transmission by sneezing and coughing. Touching

objects that have these infected fluids can also transmit this virus. Other routes may be possible, but have yet to be determined.

To prevent the spread of the disease, handwashing and sanitary practices remain the best methods of prevention. Wash hands frequently with soap and water, use hand sanitizer or 70% alcohol to rub your hands well. Avoid crowded areas with little ventilation, avoid contact with individuals who may have an upper respiratory infection (sneezing, coughing, and runny nose). Avoid shaking hands, especially at church services, where too many people can transmit the virus by this method. Personally, I wouldn't eat out during this time, and shake "elbows" not hands. Masks have to be fitted correctly to the person's facial contours. Avoid touching your eyes and face. If you were to cough or sneeze do this in a disposable tissue not into your hands. Discard the tissue immediately and don't put it back in your pockets. Don't use reusable handkerchiefs. Clean all "high touch" surfaces (tables, counters, door handles) more than once a day. If you or your students have a fever, cough, or fly-like symptoms, it may be best to stay home and seek medical care to avoid infecting others with whatever you may have. Seek medical attention as needed.

Common sense actions, not panic, can help curb the spread of this virus. Panic can lead to unnecessary actions that may put you and others at higher risk of getting this infection. Refer to the CDC advisories at [CDC.gov](https://www.cdc.gov).