COVID-19 FAQ

**Background:**

* Part of the family of coronaviruses. The most common coronaviruses cause typical cold symptoms (fever, cough, sore throat, runny nose).
* MERS and SARS are also coronaviruses. COVID-19 is most closely related to the SARS variation.
* Is a single segmented RNA virus which means it can mutate and change its virulence. Which could be causing the variation in hospitalization rates and death rates that are seen over a widespread area.

**Symptoms:**

The three common symptoms seen in a majority of the cases are: Fever, Cough and SOB (80% cases).

Other symptoms less reported include:

* GI symptoms (Nausea/vomiting) 25%
* sore throat 5%
* runny nose 5%

**Characteristics:**

* Incubation period (how long from exposure to illness) 1-14 days, most develop symptoms by day 4-5.
* A person can be contagious 1-2 days before onset of symptoms, HOWEVER, viral shedding increases exponentially once symptoms begin. Mass DPH considers a person contagious when symptoms are present.
* Transmission rate (how many people can get sick if exposed to a contagious patient: 1.5-3.5. In other words, a contagious person spreads the illness to between 1.5-3.5 people. For comparison, influenza is 1:1 spread and norovirus is 1:4 spread.
* At this point, is more fatal to people over the age of 60 with co-morbid high risk factors (heart disease, diabetes, hypertension and chronic respiratory disease). Additional co-morbidities increased risk of death. In looking at reported deaths from Italy and China:
	+ 48% of deaths had 3 or more co-morbidities.
	+ 26% of deaths had 2 co-morbidities.
	+ 25% of deaths had 1 co-morbidity.
	+ 1% of death had no co-morbidity.
* 80% of confirmed COVID-19 patients have mild to no symptoms.
* 15% of confirmed COVID-19 patients require hospitalizations
* 5% of confirmed COVID-19 patients require ICU level care.
* Can live on clothing up to 12 hours, porous surfaces 3-4 hours and metal/copper surfaces up to 6-8 hours.

**Case Fatality Rates:**

* Worldwide: 4.7%
* US: 1.7%
* Massachusetts: 0.96%

There is a wide spread in Case Fatality Rates (CFR) being reported. Case Fatality Rates look at known cases and compares them to known fatalities. European countries have shown a high rate which is believed to be due to poor primary care medicine, older population and greater number of co-mobidities. At this point, in Massachusetts the fatality rate is just slightly higher than seasonal influenza (0.5% CFR). However, with any diseases/virus, there are typically many more cases that are unknown which would lower the fatality rate even more. A true fatality rate for COVID-19 won’t truly be known till after the pandemic ends. For comparison, here are the case fatality rates of a few other diseases we have encountered over the years:

* Severe Acute Respiratory Syndrome (SARS): 10% CFR
* Middle Eastern Respiratory Syndrome (MERS): 35% CFR
* Ebola: 50% CFR

**By the numbers (as of 3/29):**

* Worldwide: 693, 224 cases; 33, 106 deaths
* US: 140, 904 cases; 2,405 deaths
* MA: 5,000 cases; 48 deaths; 8.1% hospitalization rate.

This graph is a breakdown of confirmed COVID-19 cases in Massachusetts. Cases are dispersed almost equally between all age groups. All of the deaths in Ma have been in people over 50 with co-morbidities. A majority of the deaths were in people greater than 70 years of age.

Each day, the news reports more confirmed cases in Massachusetts. This is due to the increased capacity in statewide testing. In the matter of 1 week (3/21-3/28), 36,000 people were tested. Increased testing is finding additional cases that are asymptomatic. At this point, MDPH considers COVID-19 as widespread community transmission. Because of the amount of worldwide cases being detected after travel bans were imposed on China in early February, WHO/CDC believe COVID-19 may have began as early as November 2019 and went undetected until cases started popping up in January.

**How long is this going to last?**

A typical viral “curve” (documented first case to last case) can last 8-12 weeks with the peak of the curve around the 4-6 week mark. The first cases in Massachusetts were documented in the beginning of March which means this curve could last until early June if not interrupted. However, social distancing prolongs the curve and slows the number of cases so the healthcare system isn’t overwhelmed. Current modeling predicts we will see a peak in the next few weeks. They are predicting that the week of April 14th, we will see peak hospital admissions, ICU/vent use and deaths. On the bright side, Coronaviruses don’t thrive well in warmer weather, so, hopefully as the weather warms up, that will help to limit viral spread.

**Take home points:**

* We’re in this for the long haul. Cases are going to exponentially grow with a project peak in mid-April.
* Despite what we are hearing on the news, a majority of the COVID-19 cases have mild to no symptoms.
* Most person to person transmission is happening when people are symptomatic.
* According to MDPH a “true exposure” is being within 5 feet of a symptomatic person for greater than 10 minutes and exposed to their secretions (active coughing, aerosolized medications, etc) without using proper PPE. As long as you are wearing a proper mask, eye wear, gloves and gown, you have a very low risk of exposure.
* Put a surgical mask on every patient as soon as you make patient contact to limit exposure regardless of symptoms or chief complaint.
* Cleaning surfaces with disinfect cleaners or a 10% bleach solution will kill the virus.
* Washing and drying our uniforms in normal settings machine settings is enough to eliminate the virus. There is no chance of cross contamination of clothing that is laundered.
* Case numbers will continue to increase with increased testing.
* Exposure is first hand contact with a symptomatic person, there is no chance of second hand exposure (e.g. I was around someone with no symptoms who was around someone that tested positive).
* They have been seeing a huge surge in clusters in nursing homes statewide. Any calls in nursing homes we should be wearing PPE.