



The Miller Report

Mendocino Coast COVID-19 Update for the Week of April 20, 2020.

by

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From William Miller, MD, our hospital's Chief of Staff:

To shelter-in-place or not to shelter-in-place... that is the question. There has been a lot of talk recently about the wisdom of the shelter-in-place mandate and when it can be lifted. To be sure, from a public health perspective, shelter-in-place has been the one thing that has had the greatest impact on slowing the spread of COVID-19. From the perspective of protecting our health care system from being overwhelmed, it has been essential. However, there are costs involved that are economic, psychological and measured in terms of our civil liberties.

In thinking about this, it is reasonable to compare COVID-19 with influenza, but make sure we are comparing pandemic to pandemic. Just like there are different strains of coronavirus, there are different strains of influenza. The COVID-19 pandemic is most comparable to the Influenza Pandemic of 1918 (aka the Spanish Flu). It is not comparable to the garden variety influenza that we experience each year. COVID is much more easily spread than the flu. The 1918 flu was roughly 2 times more contagious than regular flu, while COVID is roughly 5 times more contagious than regular flu. That higher degree of contagion means that the virus is spread rapidly through the population and once it gets going the number of cases will double every two days. The incubation time of all three is about the same 2-4 days on average. The 1918 Influenza Pandemic had an overall fatality rate of about 2% with the majority of deaths being in the 20-40 year old age group. Worldwide, this led to about 50 million deaths of which approximately 675,000 were in the US. COVID has a fatality rate of about 4%. While this number may be an overestimate, since we don't know exactly how many people have been infected, we can judge that it is at least as serious as the 1918 pandemic. The majority of deaths with COVID are over age 65 comprising almost 80% of all deaths.

The key to controlling spread of an infectious disease like this is to isolate the people who are infected until they get over the illness and are no longer contagious. Under normal conditions, this involves testing to determine who has it followed by contact tracing as a means of determining who may have caught it. However, in this case, that could not be done because when it started spreading in the US, we did not have an

effective test. By the time someone presents sick, they had already spread it to many others. So the epidemic took off and the only way to control it at that point was to essentially isolate everyone. Hence, the shelter-in-place requirement. Stanford has produced an excellent epidemiological model for the effects of shelter-in-place versus no shelter-in-place for this disease. The website [CovidActNow.org](https://www.covidactnow.org) allows you to use this model to look at any county in the US. If you go to Mendocino, you will see that without shelter in place we would have about 800 patients requiring admission by mid-May. We only have 140 hospital beds in our county. Of those, 100-200 would be here at Mendocino Coast Hospital with our 25 beds. We would have been completely and utterly overwhelmed. In such a situation, we would be forced to use mass casualty protocols to triage people into those that would be treated and those that would be simply made comfortable. Fortunately, with shelter-in-place, that is stretched out over the months to come such that we won't have more than about 10 patients or so at any one time. By keeping hospitals from being overwhelmed, we will be able to provide better care and that will translate into lives saved.

When we consider the economic impact of the pandemic, remember that economy would be severely affected from the large number of deaths and the disruption caused by panic regardless of shelter-in-place. Things certainly would not be "business as usual" while hundreds, if not thousands, of people are dying all around. If we look at the New York / New Jersey experience were this took off before such measures could be put into place, they were having up to a thousand deaths in one day at one point in the two states combined. The dead are being buried in mass graves, the first time that has happened in the US since the Civil War. Clearly, such a situation is going to have a dramatic impact on the economy even without shelter-in-place. It is not a good situation either way. However, I think it is wrong to believe that the economy would not be dramatically affected if we simply let the epidemic run its course and killing perhaps millions of Americans in the process.

Another objection to the shelter-in-place directive is the loss of civil liberties. This is a valid concern as we all saw how quickly some of our liberties were eroded following 9-11. Fear makes us vulnerable and we may be willing to give up freedoms for a sense of safety. It does seem an odd paradox, though, that people are willing to die to protect freedoms, but not willing to temporarily give up some freedoms to live.

Whichever way you look at shelter-in-place, it has helped buy hospitals and health care workers across the country some much needed time to prepare for what lies ahead. This extra time could mean getting more protective equipment so that when we potentially put our lives on the line to take care of COVID patients, we can protect ourselves. Also, by preventing an overwhelming of hospitals, it means that we will be able to give each person admitted with COVID the best chance at survival. And when we do roll back on the shelter-in-place directives, if it is done in a thoughtful manner, we can avoid losing those gains that we have achieved. If we just drop shelter-in-place in response to an angry backlash, then we will likely be inviting the very surge in cases that we have been trying to avoid. It seems to me that in the end it comes down to two scenarios. One with shelter-in-place in which we impact our economy, but save more lives. The other in which we do not shelter-in-place and we still have a damaged economy, but a horrific loss of life.

Difficult Choices in the Time of COVID-19

Making the right decisions for today and for the future. If you have monitored recent City Council meetings, you know that the City is trying to measure the impact of COVID-19 and the world-wide economic shut-down on our local economy. The City depends on local businesses, especially our hotels, retail stores, restaurants, bars, gas stations, and local attractions to collect the City taxes added to the businesses' sales. This means that like many of our businesses, the City is dependent on tourism. Tourist-based economies have been hit hard by this shutdown. The worldwide hotel industry is down 90%.

The City's General Fund which pays for most of our basic City services, including Police, the costs of our Volunteer Fire Department, Parks and Trail Maintenance, Community Development, Code Enforcement, Engineering, Economic Development, Visit Fort Bragg, the Noyo Center and Athletic Fields contributions, and City Administration relies on sales tax and Transient Occupancy Tax (TOT). These two sources make up approximately 47% of the City's General Fund budget. With nearly all of the City's 900 plus hotel rooms empty, I have estimated that TOT collections may be down 90%. The tourists that visit Fort Bragg and fill those rooms account for around 40% of the City's total sales tax collections. Regional residents account for about 33% with the remaining 27% coming from Fort Bragg City residents. Add to this impact the number of businesses which are closed or severely limited in their ability to transact businesses. And finally, we have to consider the sheer number of employees who are no longer working or who are working fewer hours and buying what they need or just what they can afford.

With the estimated decreases in City fees and other taxes, the City's General Fund is likely spending \$425k more a month than it will bring in. This means that in the five weeks since March 18, when the County's Shelter-in-Place Order was mandated, the City has already used up the \$490k Recession Reserve created by City Council last year – plus more. I don't expect the Governor or the County Health Official to give the full green light to our local tourist economy before late summer. This means that without cutting staff and services, we will likely continue to eat up reserves in the months to come. In total, the City's General Fund had \$3.14 Million in reserve as of July 1, 2019. I estimate we have \$2.6 Million now.

By the end of May, if my estimates are even close to accurate, this could be down to \$2 Million and by the end of June at \$1.5 Million. This means City reserves built up over many years may be reduced by half in just three and a half months, well before we expect to start an economic recovery. I have never experienced anything like this in my life. Trying to model the impact of the global shutdown on our local economy is challenging. It is also serious. For the City, it means balancing the ability to continue to provide services, preparing to support our community and businesses when we do open back up, against difficult staff reductions now. My projections are likely off by some

factor. My hope is that I have been too pessimistic but my fear is that I have not been sufficiently pessimistic.

The City's most recent [General Fund Financial Projection](#) is available for viewing at city.fortbragg.com, under Agendas & Meetings, [Special City Council Meeting](#) on April 20, 2020.