

OKALOOSA COUNTY COVID-19 KEY METRICS

Week 33

The information in this report is collected and monitored daily and updated weekly to the community. As of August 16, 2020, 3,742 COVID-19 cases are reported for Okaloosa County, an increase of 201 cases since August 9, 2020.

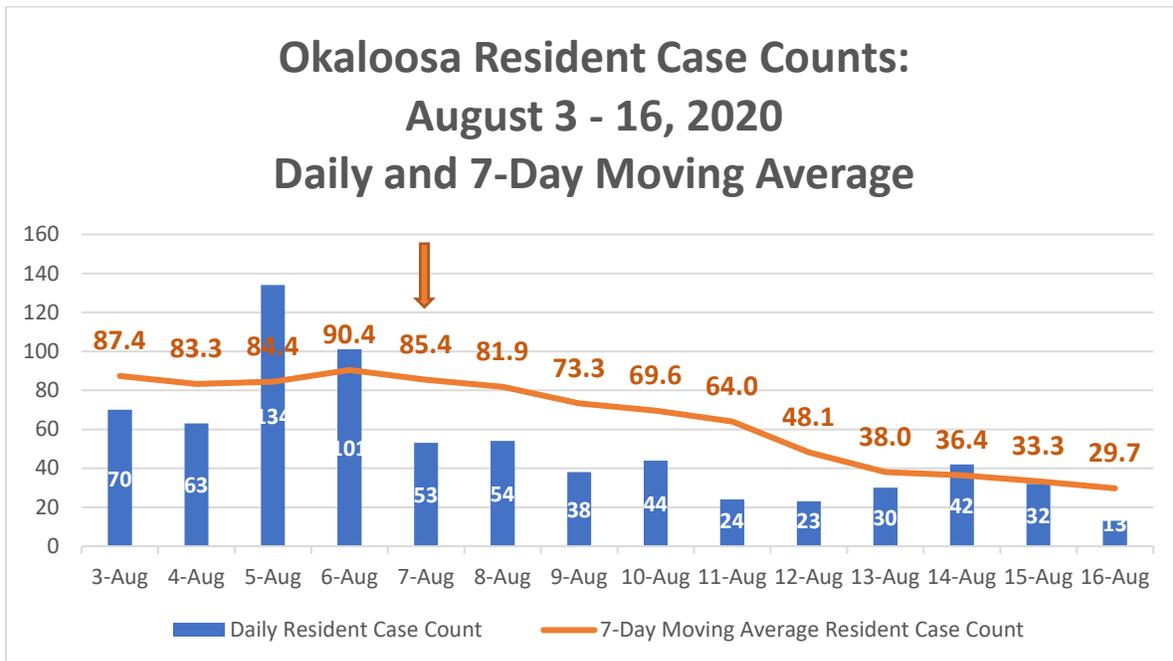
New Confirmed or Probable COVID-19+ Resident Cases over past 14 days:

Reports daily number and 7-day moving average of confirmed (PCR+) or probable (Antigen+) cases.

RATIONALE: Daily new cases reflect the proportion of the outbreak captured by surveillance systems. Number of new cases gives a sense of the size of the epidemic/outbreak in Okaloosa County.

TARGET: Decreasing case count over 14 days or at a low level (as defined by CDC* as below 10 cases per 100,000 population over 2 weeks).

*CDC Activities and Initiatives Supporting the COVID-19 Response and the President’s Plan for Opening Up America Again. May 2020. Low incidence plateau defined as a very low number of new cases (below 10 cases per 100,000 population over 2 weeks with only minimal change in daily cases).



New resident case counts started declining both daily and 7-day moving average as of August 7. Okaloosa has seen a 10-day decline in case counts during Week 32-33.

However, cases are not $<10/100,000$ population over a two-week period but are significantly improving.

- Total Cases in 2 weeks (August 3 - 17) = 721
- Rate: **343 cases/100,000 population 2-week period**
- Okaloosa Population = 210,000

While disease burden in Okaloosa remains high over the two-week period, declining daily and moving case counts is a very encouraging trend.

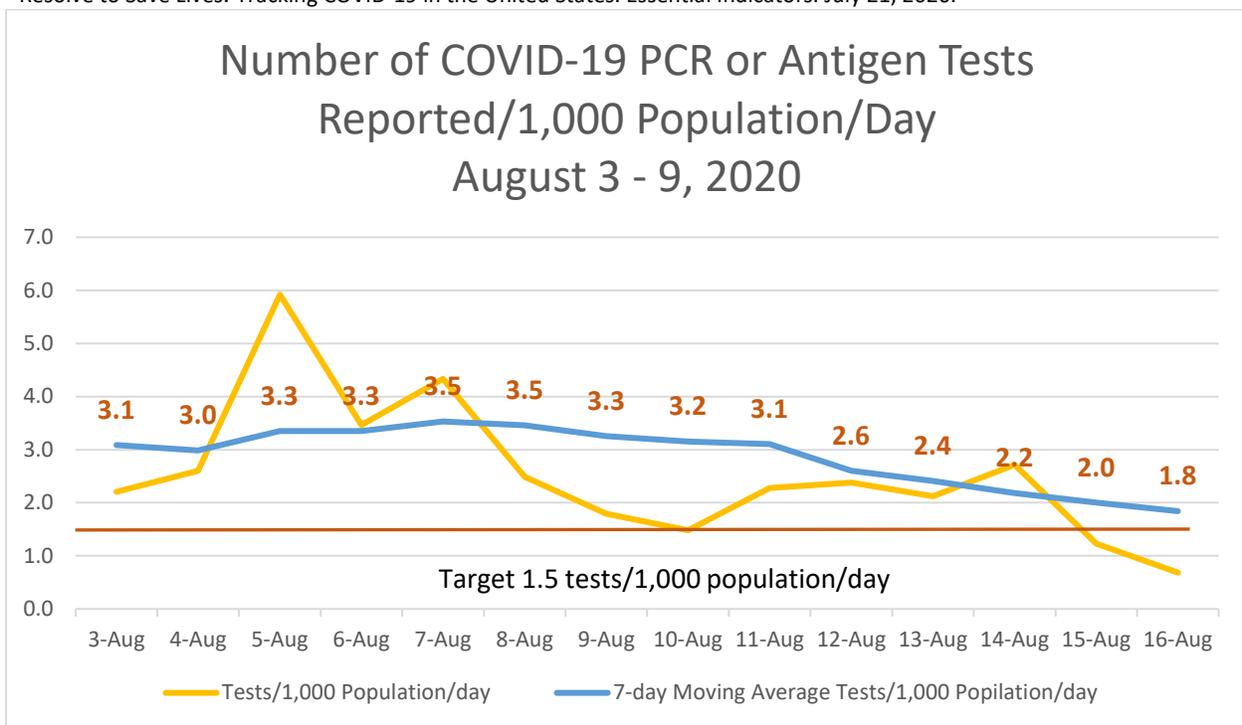
COVID-19 Diagnostic (PCR) and Screening (Antigen) Testing Per Capita

Reports daily and 7-day moving average total test results received / 1,000 population / day.

RATIONALE: The number of cases and percent of positive tests can be interpreted only with comprehensive surveillance and testing of suspect cases in the order of 1.5 /1,000 population/day.

TARGET: 1.5 tests / 1,000 population / day*

*Resolve to Save Lives. Tracking COVID-19 in the United States. Essential Indicators. July 21, 2020.



Okaloosa County at least 1.5 COVID-19 diagnostic or screening tests (positive and negative results) per 1,000 population per day. However, Okaloosa testing has started declining over the page 10 days. This may be indicating a decline in access or demand for testing.

While there is still adequate testing of the population to be able to interpret the burden of disease in the County based on the case count and the percentage of positive COVID-19 diagnostic or screening tests received, the decline in testing is concerning.

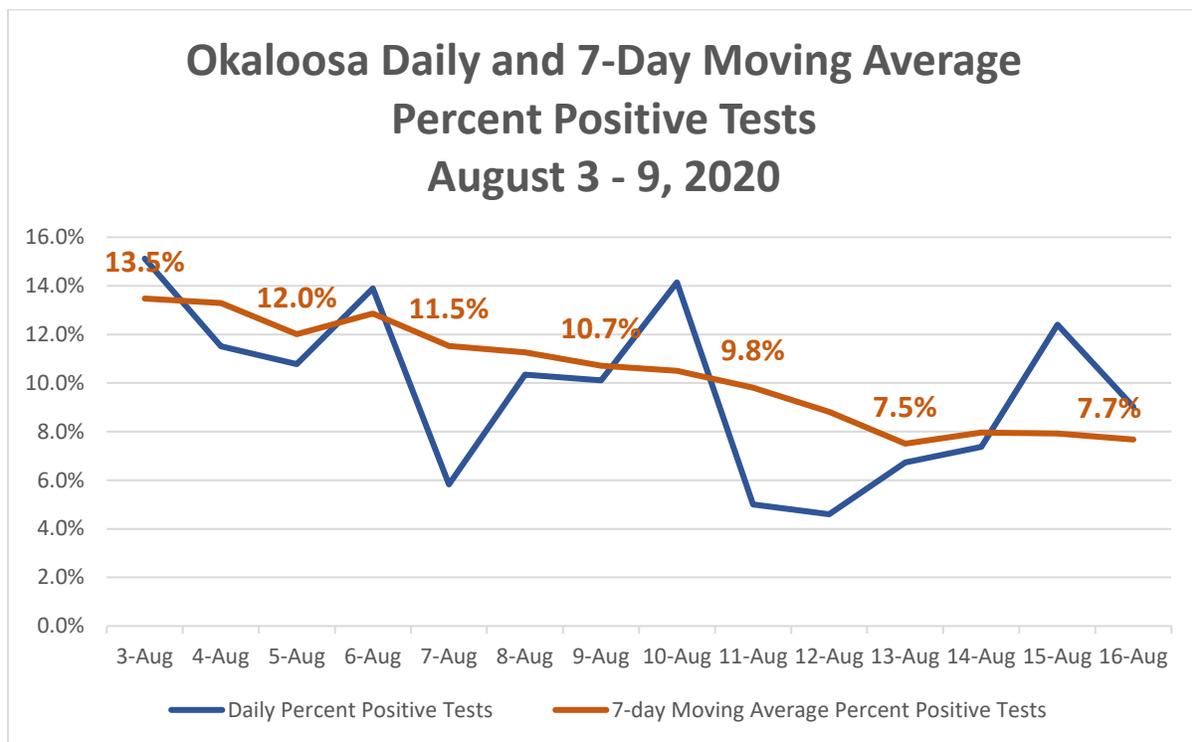
Percent Positive COVID-19 Tests:

Reports daily and 7-day moving average percentage of all positive COVID-19 diagnostic and screening tests (regardless of provider) for Okaloosa County residents.

RATIONALE: Test positivity is an important indicator of the burden of disease in the area (county). The percent of positive tests can be interpreted only with comprehensive surveillance and testing of suspect cases in the order of 1.5 /1,000 population/day, which Okaloosa County achieves (see above metric).

TARGET: 5% or less of tests for COVID-19 are positive for at least 2 weeks.

*WHO. Public Health criteria to adjust public health and social measures in the context of COVID-19. May 2020.



Okaloosa has seen a two week decline in 7-day moving average of percent positive tests. Okaloosa remains above the <5% target. Okaloosa can continue to push this curve downward through adherence to physical distancing and the wearing of cloth face masks.

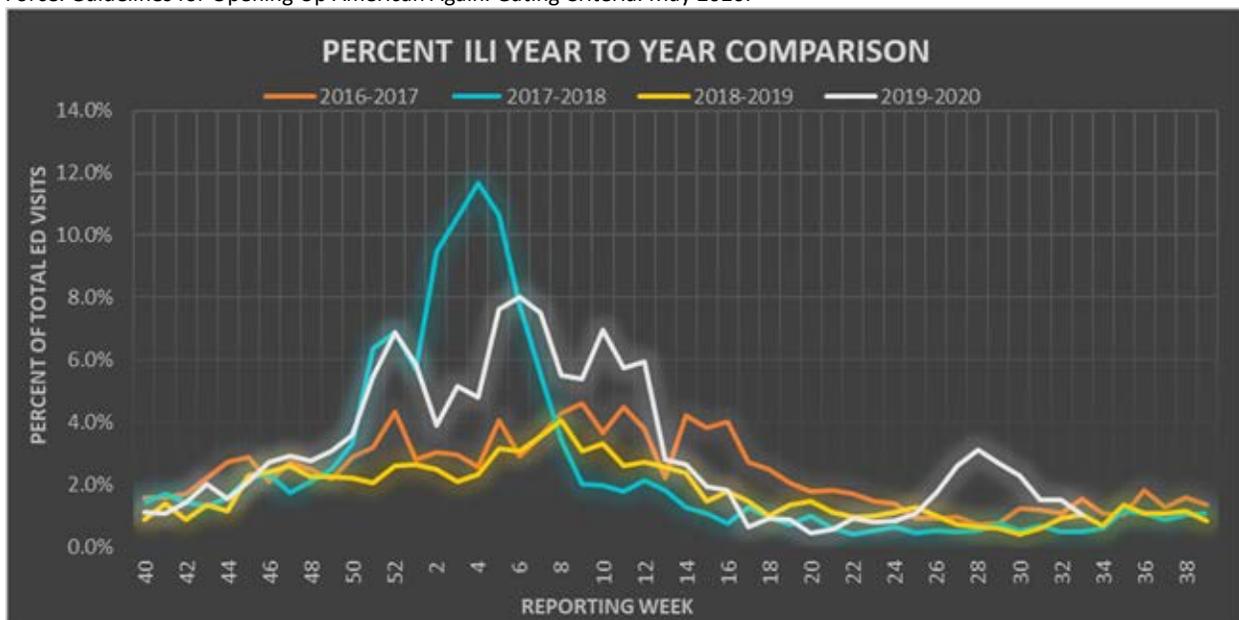
Influenza-Like Illness

Activity levels are based on the percent of emergency department visits due to influenza-like illness (ILI) compared with past year activity at the same time of the year.

RATIONALE: This type of syndromic surveillance* is used to monitor trends in emergency department visits and can be used to potentially detect a rise in COVID-19 cases before a rise in confirmed cases occurs. ILI is defined as fever (temperature of 100° F or greater with cough and/or sore throat without a known cause other than influenza).

TARGET: At or below baseline for the time of year based on past year trends for percent of ILI visits to emergency departments.

*Resolve to Save Lives. Tracking COVID-19 in the United States. Essential Indicators. July 21, 2020. White House Coronavirus Task Force. Guidelines for Opening Up American Again. Gating Criteria. May 2020.



As of Week 33, ILI percent of emergency department visits at baseline for this time of year.

WEEK	VISITS ILI/Total	% ILI of Total ED Visits	WEEK	VISITS ILI/Total	% ILI of Total ED visits
Week 24	17/2010	0.85%	Week 29	59/2194	2.69%
Week 25	22/2075	1.06%	Week 30	48/2117	2.27%
Week 26	38/2208	1.72%	Week 31	32/2117	1.51%
Week 27	57/2184	2.61%	Week 32	32/2107	1.52%
Week 28	71/2274	3.12%	Week 32	21/2015	1.04%

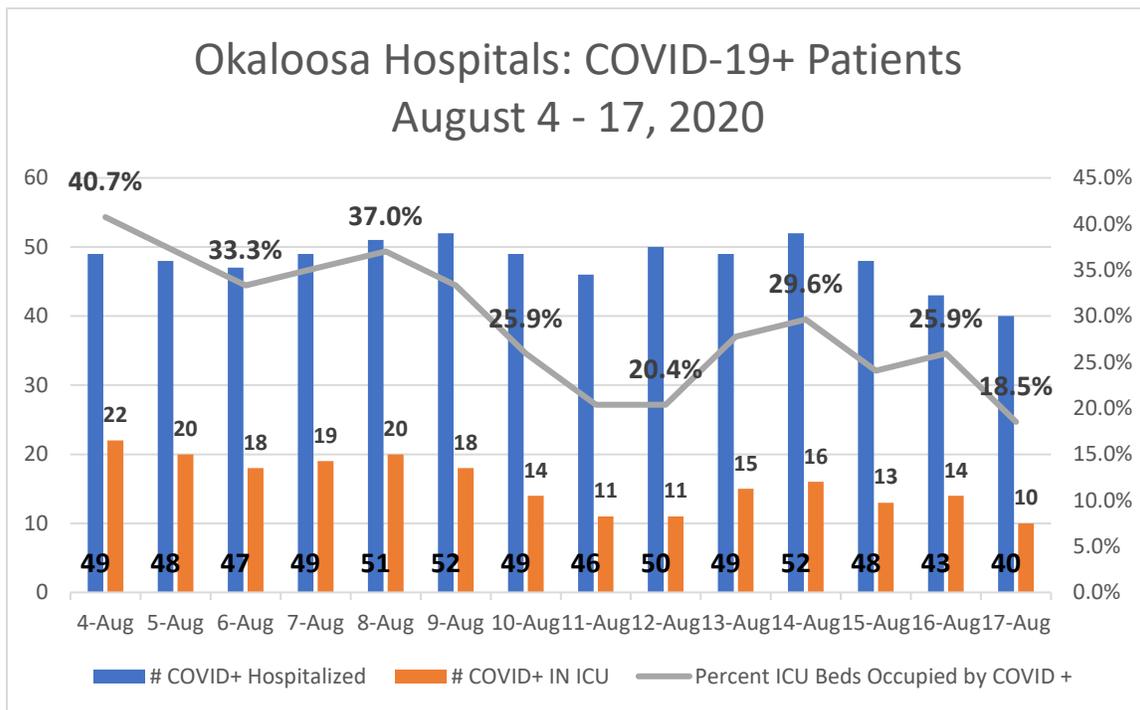
COVID-19 Hospital Admits

Number of COVID+ Hospitalized; Number of COVID+ in ICU; and percentage of ICU beds occupied by COVID+ patients.

RATIONALE*: Declining hospitalization and use of ICU beds indicates a decline in the number of cases in community, with an approximately ~1-week lag and providing that the criteria for hospitalization has not changed.

TARGET: Continuous decline in the number of hospitalized and ICU admissions of confirmed (PCR test) or probable (Antigen) COVID-19 cases for at least the past two weeks.

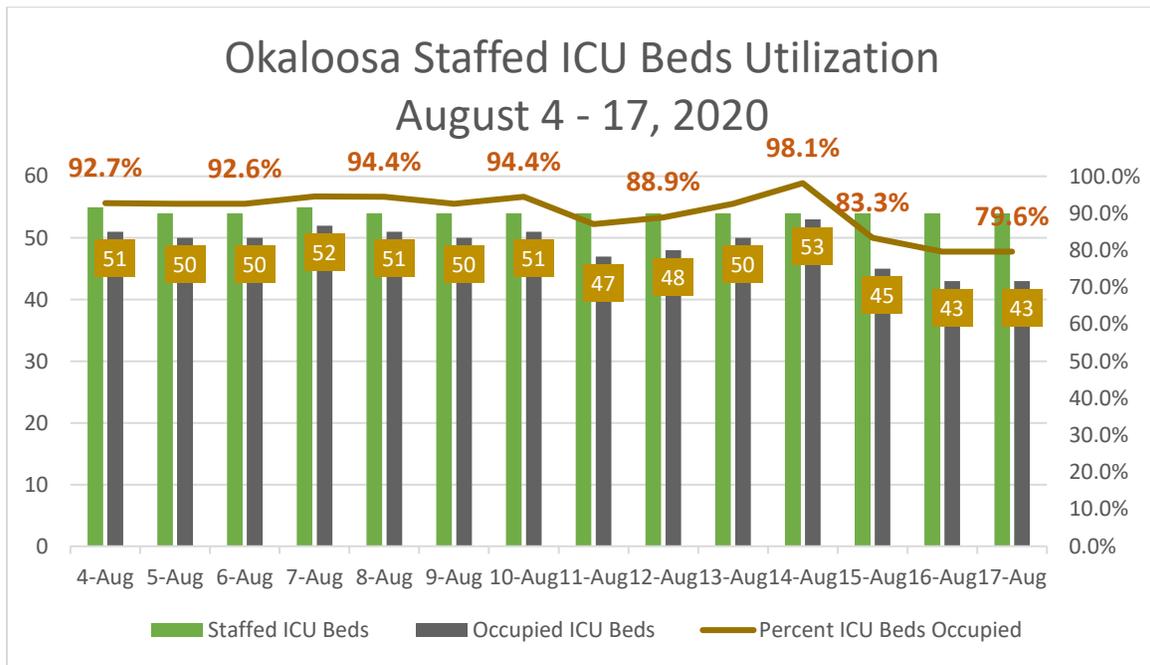
*WHO. Public Health criteria to adjust public health and social measures in the context of COVID-19. May 2020.



Okaloosa continues to see ongoing admissions to area hospitals for COVID-19. COVID-19 admissions account for 12.2% of all staffed acute care hospital beds. There is still no continuous decline in the number of people admitted to area hospitals over a 2-week period but there appears to be a decline in the number of admissions in need of an ICU bed. Admissions to the hospital is a lagging indicator and more likely reflects cases from the prior two-week period. If the decline in case

count and percent positivity persists, this may indicate that in the next two weeks, Okaloosa will see a further, and hopefully, sustained drop in hospitalizations, especially those in need of an ICU bed.

During the past 2 weeks, Okaloosa ICU beds exceeded 85% occupancy 11 out of 14 days. However, since August 15, ICU bed utilization has dropped below 85% occupancy. Combined with decreasing hospital admission for COVID-19, this is another encouraging sign of progress.



Deaths

On August 9, 2020 Okaloosa County had 41 COVID-19 deaths. As of August 16, that number has increased to 50 individuals. Deaths were in the following age groups:

AGE GROUP	DEATHS	PERCENT	CHANGE FROM 8/9
25-34 YEARS	3	6%	+1
45-54 YEARS	3	6%	+1
55-64 YEARS	6	12%	+2
65-74 YEARS	4	8%	+2
75-84 YEARS	17	34%	+1
85+ YEARS	17	34%	+2
TOTAL	50		+9

Long-Term Care Facilities

As of August 16, 2020, Okaloosa has seven long-term care facilities which have 88 COVID-19+ residents under their care. An additional 32 COVID-19+ residents have been transferred to other facilities for ongoing care. There are four long-term care facilities with 5 or more resident COVID-19+ cases (range 6 – 43). These seven facilities have a total of 46 COVID-19+ positive employees.

Children

Between August 3 and August 16, 2020, 449 children (0-17 years) were tested in Okaloosa County for COVID-19. Of that number, 53 were positive for COVID-19 (11.8%). Positivity is above 10% in children over the past two weeks. Positivity for children statewide during this two-week period is 13.8%.

With school starting in two weeks, the DOH-Okaloosa will continue to test children of all ages 5-days a week. Rapid access to testing and results is key to determining if symptomatic children have COVID-19.

SUMMARY

There is encouraging news this week as both the case count and the positivity rates for COVID-19 are showing a downward trend during most of this past two-week period.

A combination of factors might have contributed to this trend: 1) National retailers started mandating masks in their businesses toward the latter part of July; 2) the Board of County Commission passed a sign ordinance for all businesses open to the public requiring posting of their masking requirements as of July 31, 2020; 3) significant debate amongst the public and elected officials about the use of cloth face coverings as an essential step in the implementation of non-pharmaceutical interventions to prevent/reduce the spread of COVID-19.

Remember, the primary means of spread for COVID-19 is person to person through respiratory droplets produced when an infected person coughs, sneezes, talks, or raises their voice (e.g. while shouting, chanting, or singing). These droplets can land in the mouths or noses of people who are nearby or maybe inhaled into the lungs. Even asymptomatic people (people who are infected but do not have symptoms) can transmit the virus to others. Somewhere between 35-40% of people infected

with the virus do not have symptoms. A cloth face covering helps to protect people around you, especially those at higher risk of severe illness from COVID-19 and workers who frequently come into close contact with other people (in stores, restaurants, workplaces). Cloth face coverings over the nose and mouth act as a barrier to trap the respiratory droplets (that carry the virus) that people expel from their nose and mouth.

But not all non-medical grade masks are created equal. A research article released on August 7, 2020 in Science Advances by [Fischer et al of Duke University](#), tested non-medical grade masks and mask alternatives using a simple optical measurement method to evaluate the efficacy of masks to reduce the transmission of respiratory droplets during regular speech. These masks were compared to a 3-layer surgical mask and the fitted N-95 mask. The findings were that a 2-layer cotton-pleated style mask, a cotton-polypropylene-cotton mask and a 2-layer polypropylene apron mask were quite effective in reducing the droplet spray from the mouth and nose. Of concern, the study found that some commonly used non-medical grade masks were not effective such as the valved N-95, the bandana, and the gaiter type neck fleece.

Finally, I was asked an interesting question this past week and I was asked by the questioner to share my answer in my weekly update. The question was “If we have 1000 residents getting infected every 12-14 days and about the same getting over it every 14 days, wouldn’t it seem that the increase is stable? With over 200,000 residents, a stable 1000 doesn’t seem so scary.

Here was my response:

It is vitally important to reduce the number of coronavirus infections that are causing COVID-19. To have a 1,000 residents every two weeks coming down with this virus is not a good thing. This is a novel or new virus to human beings. While we know much more about this virus than we did in March, most of what we have learned has made us realize just how serious our situation is. This is a highly contagious virus and spreads easily person to person.

As we have studied those who have died from this virus, physicians have learned that this virus causes problems in the body that we would not have expected. We have seen serious blood clotting disorders in people hospitalized with this virus. On autopsy, blood clots are found in almost every organ. There is damage to the patients’ hearts, lungs, kidneys and liver.

We know this virus attacks victim’s lungs ferociously. Pathologists with many years of experience say they have never seen the degree of micro-clots in the lungs as with this virus. We also see otherwise healthy-

looking younger people complaining of feeling “a bit short of breath” and find that their oxygen levels are seriously low even while they are typing on their phones in the emergency department. Many get rapidly sick and are put on a ventilator.

Patients who die have been found to have inflammation of the heart muscle and pathologists have found rare cells called megakaryocytes in the heart. These cells produce platelets used to control clotting and are usually only found in the bone marrow and lungs. Even within the brain there is a striking presence of blood clots on autopsy.

And so, a major question remains, what damage is this virus doing in the bodies of those people who do not die, who have milder illness that is managed as an outpatient? A multistate telephone survey of symptomatic adults ranging in age from 18 – 50+ years, found that 35% had not returned to their usual state of health when interviewed 2-3 weeks after their diagnosis. In fact, among those 18-34 years with no chronic medical history, one in five (20%) had not returned to their usual state of health. The lingering question remains, are there any longer-term impacts on the body that we may discover months to years from now?

We didn’t learn until 50 years after the introduction of the measles vaccine, what natural measles infection did to the human body. It was observed that after the introduction of the measles vaccine, all child infectious diseases mortality dropped significantly. Nobody knew why. It was not until this century when people stopped vaccinating their children with the measles vaccine, that scientist and physicians were able to study the impact of natural measles infection on the human body. What they found was shocking. In fact, a natural measles infection destroys an important part of the immune system in children which takes years to recover. And that important part of the immune system was spared in those children vaccinated and was why we saw a drop in all child infectious disease mortality after the widespread use of the measles vaccine. Children who were vaccinated retained their healthy immune system and were able to fight off and survive other infectious diseases.

So this is a virus we do not want people to get. And there are simple, nonpharmaceutical things we can do to prevent us from getting this virus. Know how to properly wash your hands, stay away from large groups of people, don’t go out or go to work/school when you are sick, practice physical distancing (6 feet at least) and wear a cloth face mask in public and when around people who you don’t live with. As for cloth face masks, their purpose is to provide source control (minimize the respiratory droplets coming from your nose and mouth) and more recent discussion that the mask may prevent the wearer from breathing in a large enough dose of the virus which could prevent infection or significantly reduce the dose allowing the body to fight off the virus or contract a very mild case. A recent study out of Duke University found that a 2-layer cloth mask was nearly as effective as a surgical mask at blocking respiratory droplets from the nose and mouth when people breath, speak or speak loudly. However, “valved” masks, bandanas and gaiter-style neck fleece coverings were not effective.

I hope this provides some insight to why it is important to reduce the number of new daily infections and the rate of infections.

Thank you for your question and interest,

Dr. Chapman