

Some Updates from Dr. Erik P. Johnson's Social Media Posts.

[Important numbers \(to consider\), of recorded U.S. cases of COVID 19 escalating since March 3rd :](#)

March 21st, 2020

Friends,

Just a little update from the video talk that I originally gave on Fri. March 13th. I mentioned in the talk that I saw a 10-fold increase in cases since I gave my first talk to a smaller audience on March 3rd. The U.S. had 125 cases on March 3rd, and 1,762 cases by the evening of March 12th. This morning, March 21st, the U.S. has 19,931 cases, another 10-fold increase since my talk last week! Some of this is because of increased testing, but there are certainly many, many cases we don't know about yet.

The caseload has been going up consistently by about 34% more each DAY in the U.S., 6,000 new cases just yesterday, March 20th. **We NEED to get the rate of new increases to come down. Increased social distancing measures will help**, but because of the long incubation time, it may take a few days or weeks to see a benefit.

Autoimmune disease: There have been recent reports, that those with autoimmune diseases (like me), are at special risk because our immune systems are already overactive, and will do extra damage to our bodies while trying to combat the SARS-2 virus. In a brief search online, I have not been able to find confirmation of this report. **If you have: Celiac Disease, MS, some kinds of Diabetes, or other autoimmune disease, take special care.**

My state, California, has instituted a voluntary ban on non-essential outings from your house, except for:

- Getting food
- Care for a relative or friend
- Getting necessary health care
- Going to and from an essential job

If your job is essential, you know it by now!

Going for a walk is still a good idea if you keep a safe distance (at least 6 feet) from neighbors.

However, CA has more recently (March 23rd), closed all: parks, beaches, trails, lakes etc. to the public and are enforcing violations of closures by citing violators w/ misdemeanors.

Also, consider texting neighbors, or using Nextdoor or a similar app/site to try to find people in your area who maybe do not have social connections and may need extra assistance, like food and supply delivery. Ding dong ditch! (As a safe service, not a prank.)

I also heard a good idea about buying gift cards from your favorite stores in town to support them until things get back to normal.

That's all for now! Take care!

Don't fear, but do be smart!

Erik

March 22, 2020 - P.S. I know I'm not exactly Mr. Fun these days, but **I have another little update.**

According to a March 16th paper on Science, one of the world's two leading scientific journals, asymptomatic people who are infected with the SARS-2 virus are about half as contagious as sick people. However, because there are so many of them, **asymptomatic people account for 80% of new infections!** (Li et al, Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus, SARS-CoV2, March 16, 2020, Science Magazine).

The takeaway is, yes, even if you are not sick, you can spread the virus!

So please stay home, and protect your neighbors as well!

March 23rd, 2020

Since the original talk on **March 13**, **a lot has changed**.

I'm just updating with some posts I made on social media this week, and some additional material.

Key take aways from the original talk are these:

- The Coronavirus (official name SARS-CoV-2) is not a flu virus, it's from a completely different class. The name of the disease is COVID-19
- The fatality rate of the typical flu is 0.14%. The rate for COVID-19 is estimated to be 3.68%, 26 times higher.
- The number of people that a carrier will pass an infectious agent to on average is called the Basic Reproductive Number, written as R_0 . For the typical flu, R_0 is 1.28. For SARS-2, R_0 is between 2.2 and 3.58. So SARS-2 is 2-4 times more infectious than the flu.
- The incubation time for the normal flu is 2-4 days.

March 25, 2020

As I feared, the case load in the United States has gone by 10 fold approximately every week. When I first gave my talk on March 3, it was 124. On March 13 for Mars Hill, it was 1,762. As I write this on March 25th, it's 55,041. By Friday the 27th, if the current rate holds, it will be approximately 150,000.

There is some good news, however!

In much of the US last week, containment measures have been taken and many are in their homes right now for this reason, working from home, or just taking some time off. It has been a big sacrifice for everyone, and the sacrifice isn't over. While new cases are still rising, the rate of new cases is starting to go down! For the US as a whole, the rate of increase was between 35-40 between the 17th and 22nd.

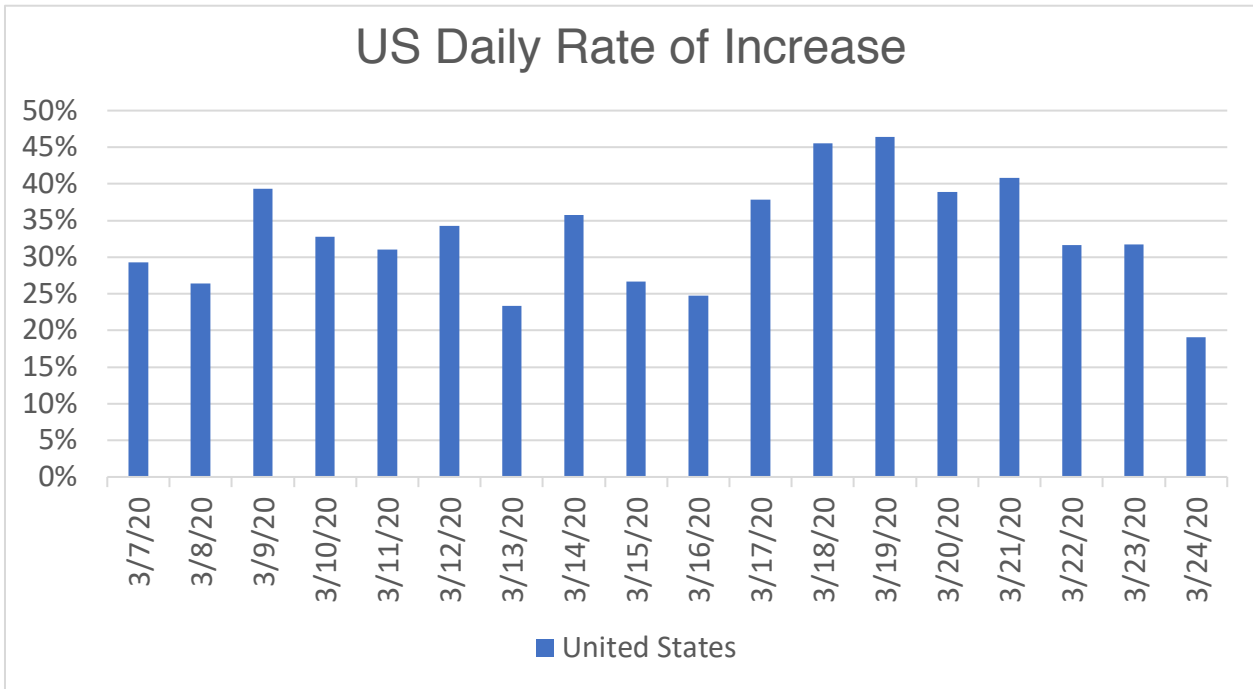
For the last several days however, the rate has been 31%.

Yesterday, the rate fell to 19%!

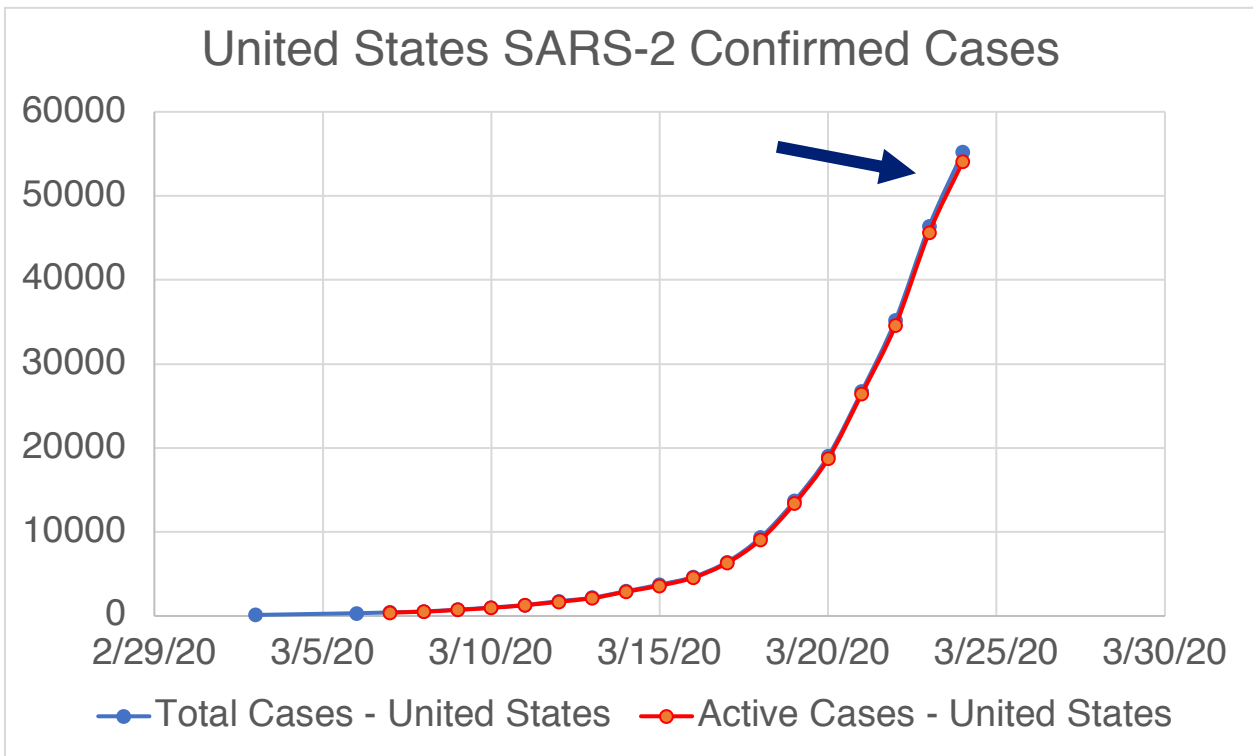
This is still too high of course,

but our sacrifice is beginning to pay off.

Please see the graphs on the next page.



The curve for the total number of cases is just beginning to bend. It's just a beginning, but it's progress. The more we bend this curve, the more lives we save!



Italy has also seen a drop in the rate of new cases.

Don't fear, but be smart!