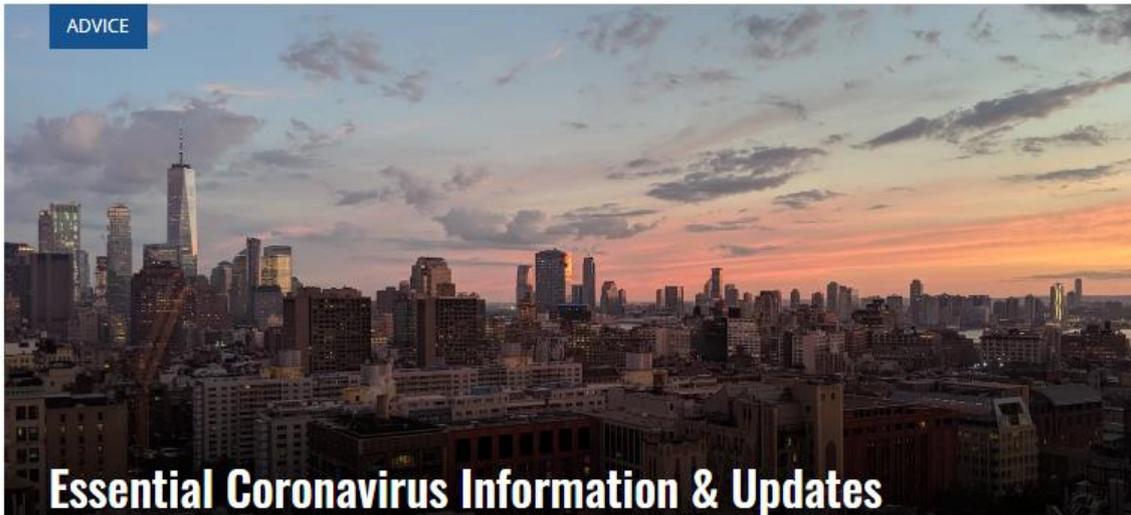Essential Coronavirus Information & Updates

As the situation continues to unfold, we are seeing a deluge of information across the internet — with much of the good and practical content being drowned out in the noise. At the same time, many people seem to not understand the gravity of the situation, whether that's due to a lack of information or not having seen the math presented clearly.

We aren't scientists ourselves (well, Travis is), but **the blog gets more annual traffic than the world's busiest airport**, and we want to help everyone be as safe and informed as possible. So here's what we know so far, and we'll continue updating this guide with resources and details from reputable and evidence-based sources.

We'll have a separate page with the impacts to travel and various policies, but having info about the virus itself in one place is helpful in not having to rehash all the health info each time we post something related.

What is Coronavirus?

Coronavirus is a specific type of virus, named such for the way the virus appears under a microscope, that often causes respiratory disease in infected individuals. The common cold (some strains) are another example of coronaviruses, but the "COVID-19" strain is a new and unique virus that humanity has not previously experienced, nor built up any immunity to.

The good news is that it is possible for a virus to burn itself out — if it runs out of people to infect, we'll see a reduction in cases. This ultimately happened with the SARS outbreak, and **we have not seen any new cases of that virus since 2004**.

Science suggests that it is possible for the COVID-19 virus to be controlled, and to limit the social and economic effects of the outbreak, but it will take an immediate and concerted global effort.

Stop saying it's "just the flu"

Despite the comparisons, the novel COVID-19 Coronavirus is *not* the same as the flu. While there are some overlapping symptoms (more on those below), COVID-19 currently has a far greater societal risk than the flu.

- COVID-19 is more contagious than the flu, with each person who catches COVID-19 infecting at least two more, versus fewer than one for the flu
- **This coronavirus is a full order of magnitude worse than the flu** — **the current fatality rate is 10x that of the flu**
- A higher percentage of COVID-19 patients require hospitalization than with the seasonal flu, and in a shortened time window (in the next 3-6 weeks, versus the typical 3-6 *month* flu season)
- While the flu vaccine isn't always terribly effective (ranging from 30%-60% each year), *there is a flu vaccine at all* — we are at least a year away from one for this coronavirus
- We have antivirals for the flu, such as Tamiflu, that can shorten the duration and severity of the infection — no such medicine exists for COVID-19

The good news is that for the majority people, this coronavirus is mild, and can be managed without hospitalization. But because of how contagious it is, the percentage of people who will require medical intervention is enough to overwhelm most communities, and the fatality rate is high enough to be devastating.

COVID-19 is not the flu.

Countries with Coronavirus

COVID-19 is now a global pandemic. While the **map of confirmed cases is constantly changing**, and is subject to the ability of governments to test and report data, **it is reasonable to assume that all countries potentially have this coronavirus within their borders**.

The WHO Director-General's opening remarks from last Wednesday sum up the situation:

In the days and weeks ahead, we expect to see the number of cases, the number of deaths, and the number of affected countries climb even higher.

WHO has been assessing this outbreak around the clock and we are deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction.

We have therefore made the assessment that COVID-19 can be characterized as a pandemic.

Pandemic is not a word to use lightly or carelessly. It is a word that, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death.

Describing the situation as a pandemic does not change WHO's assessment of the threat posed by this virus. It doesn't change what WHO is doing, and it doesn't change what countries should do.

We have never before seen a pandemic sparked by a coronavirus. This is the first pandemic caused by a coronavirus.

And we have never before seen a pandemic that can be controlled, at the same time.

A few weeks ago, before the full extent of the potential pandemic and contagion rates were known, we **tried to make the point that going** *somewhere* **was effectively the same as going** *anywhere,* and advised people not to change their travel destinations based on where COVID-19 might theoretically be, and instead assume that it was present everywhere, and act accordingly:

While we appreciate the questions from people asking if they should avoid traveling to _____ until this blows over, **the reality is that our world is too connected for this kind of unpredictable and contagious virus to stay geographically contained**.

Given that, it seems unwise to assume that anywhere is "safe" from contagion.

That assumption hasn't changed, but at this point, **we are recommending against traveling for the next 14-21 days, internationally or domestically, full-stop**. Just cancel the trip. I know that's hard to hear, and it's worse to say, but that is where we are at now.

Based on what we've seen in airports this week, **if you are currently traveling, it may be better to take a "shelter in place" approach rather than trying to repatriate**. That is in line with global calls for social distancing as a preventative measure, as it is ultimately impossible to insulate yourself from strangers in airports and airplanes, but operations are also becoming messy.

This thing moves fast, and so circumstances change rapidly. A week ago I was speaking at a conference (where a federal government official teased me for not shaking hands), and making plans to get materials to another one today. That seems *unimaginable* now, and it's impossible to anticipate what next week will look like, but I would plan on global transportation being more impacted/restricted than it is today.

How do I prevent Coronavirus?

Right now, the best thing you can do is isolate your contact with other individuals as much as possible.

Taking care of yourself and getting enough rest is important too, along with:

- Washing your hands frequently and thoroughly
- Avoiding touching surfaces to the extent possible
- Covering your coughs
- Staying home and self-quarantining if you're feeling ill

As a society, anything we can do to reduce the number of people being infected each day will lead to better outcomes.

Social distancing is imperative, panic-buying is not

At this point, **the best precaution you can take is by social distancing**, and **it is critical that you do so to the extent you are able:**

> *"It's too late now to prevent this coronavirus from spreading in our communities, but by working together to limit and slow that spread, we can save lives." –* **Dr. Tom Frieden***, former director of the US Centers for Disease Control and Prevention, and former commissioner of the New York City Health Department.*

Social distancing works because fundamentally, you can improve your odds by changing the probability distribution — the fewer people you are around, or for more limited amounts of time, the lower your odds of catching and/or spreading this virus. And **by improving your odds, you change the odds for your community as well**. **Each person who catches COVID-19 infects at least two more people.**

If you are one of the 29% of Americans with a white-collar or desk job, working from home for the next few weeks is probably a good idea. Employers should be encouraging this whenever possible. A large portion of the country have jobs that can only be done in person — everything from waste management workers to delivery agents to cashiers to healthcare workers — and the math seems to suggest that the fewer people we can expose to the virus at once, the better off we'll collectively be.

This doesn't mean you have to stay in a bunker for the next month. **Going outside is good for you.** But you should consider being thoughtful about your activities and your circle of interaction, particularly as schools start to close and childcare becomes complicated for many families. **Pooling resources with a few other households and limiting contact to within that group may be worth considering**, versus having a rotation of contacts.

Again, **not everyone has the resources or option to stay home**, but if you can find any way to make it work, you should. By limiting your interaction with others, you not only protect yourself, but the two people you'd statistically spread the virus to, and the four people *they'd* potentially infect, and the eight people they'd spread to, etc.

If you have have extra resources (be they time, money, or even just flexibility), now might be a good time to look at how you can help others in your community. If you have a job where

you have to be physically present, or are going to the store anyway, maybe you can offer to pick up groceries, prescriptions, or even pet supplies for a higher-risk neighbor, thus enabling them to stay home and reducing their exposure.

We can collectively work to change the odds of this thing.

Symptoms of Coronavirus

While the severity varies, these are the common symptoms of COVID-19, and how they differ (and overlap) with cold, flu, and allergy symptoms:

COVID-19	Seasonal Flu	Allergies & Common Cold
Fever	Aches	Sneezing
Dry Cough	Fatigue	Stuffy or runny nose
Shortness of breath	Headache	Sore throat
Difficulty breathing	Chills	
	Dry Cough	
	Fever	

What to do if you think you have Coronavirus

The **CDC recommends that if you are sick with COVID-19** or *suspect* you are infected with the virus that causes COVID-19, you should:

- Stay home except to get medical care
- **Separate yourself from other people and animals in your home**
- Call ahead before visiting your doctor
- Wear a facemask (masks help you from infecting others, but do next to nothing to prevent you getting infected yourself)
- Cover your coughs and sneezes
- Avoid sharing personal household items
- **Clean your hands often**
- **Clean all "high-touch" surfaces every day**
- Monitor your symptoms
- Remain in isolation until you are cleared by your local health department

It's particularly important to note that if you think you might have this coronavirus, you should **call**, rather than just show up at the hospital. The situation is evolving rapidly, different areas all have different limitations and approaches, and the triage process will vary dramatically.

Coronavirus Treatment

There is currently no specific medication for COVID-19. Treatment protocols for this coronavirus are geared around helping the body fight off the virus on its own.

For mild cases of the disease, this may be as simple as getting rest and using over-the-counter medications to help alleviate symptoms.

However, because this coronavirus damages the lungs, more severe cases will require hospitalization and aggressive treatment to encourage proper oxygenation of the blood stream so as to reduce damage to to other organs and systemic shutdown. As **Dr. Tom Frieden, former director of the US Centers for Disease Control and Prevention, and former commissioner of the New York City Health Department notes**:

> *"Many deaths from flu are caused by secondary bacterial pneumonia and heart attacks that develop after the flu has weakened someone's resistance.*
>
> *With Covid-19, most deaths are caused by acute respiratory distress syndrome (ARDS), which causes already-damaged lungs to fill with fluid, and makes breathing difficult. **Unlike pneumonia, there is no pharmaceutical treatment for ARDS**. That is why a potential shortage of ventilators is so dangerous: They are the last-ditch supportive treatment for Covid-19 while the body heals itself."*

Ventilators and hospital beds are both limited resources; the best way to ensure they are available to the people who need them most is for everyone to help slow down how quickly this spreads, so we can cycle people through treatment facilities at an appropriate pace.

This is all A Lot

I think it's also important to acknowledge that this is new, and unprecedented. There's a ton of information out there (of varying quality), and a real risk of people getting overwhelmed or tuning out. It *feels* silly to be reacting so aggressively to something that for many folks is a minor illness, but the actions we all take at this point could have an outsized impact on the end result.

> *"Everything we do before a pandemic will seem alarmist. Everything we do after a pandemic will seem inadequate."* — Michael O. Leavitt, U.S. Secretary of Health and Human Services, 2007.

At the same time, everyone can only do the best they can do. We're all making decisions based on the information we have available (and that information is constantly changing), and the resources we each have. Let's all try and be as supportive of each other and individual circumstances as we can. Being kind and calm never hurts anything.