

Coronavirus Epidemic – Plain Talk, Practical Approach, Positive Attitude

Joe Sterling 3/4/2020

In 2006 I wrote “Preparing for Pandemic: Family & Neighborhood Readiness Workbook.” That writing was prompted by the threat of the Avian Flu, and was then updated three years later when the Swine Flu actually went global. See attached PDF of the 2009 version. A Kindle version is available at <https://www.amazon.com/dp/B0858TLQ2S>. If you are wondering what qualifies me to offer guidance on pandemic readiness, response, and recovery, see “About Joe Sterling” at the end of this post.

A little over 60 days ago, in December 2019, a new Coronavirus, now called COVID-19, emerged in China. It became an epidemic there and has since started spreading globally. As of this writing (3/4/20), the number of confirmed cases globally has exceeded 95,000 with over 3,200 fatalities to date. Cases are now appearing in the US, Canada and Mexico. Here’s what the CDC published this week about “what may happen” as the disease spreads in the US:

“More cases of COVID-19 are likely to be identified in the coming days, including more cases in the United States. It’s also likely that person-to-person spread will continue to occur, including in communities in the United States. It’s likely that at some point, widespread transmission of COVID-19 in the United States will occur.

Widespread transmission of COVID-19 would translate into large numbers of people needing medical care at the same time. Schools, childcare centers, workplaces, and other places for mass gatherings may experience more absenteeism. Public health and healthcare systems may become overloaded, with elevated rates of hospitalizations and deaths. Other critical infrastructure, such as law enforcement, emergency medical services, and transportation industry may also be affected. Health care providers and hospitals may be overwhelmed. At this time, there is no vaccine to protect against COVID-19 and no medications approved to treat it. Nonpharmaceutical interventions would be the most important response strategy.”

Based on my reading of a rapidly growing body of journal articles from many credible sources published as research is completed over the last few weeks, here’s how I have come to think about this epidemic: It’s on par with the 1918 Influenza pandemic (H1N1). The case fatality rate (%) is about the same and it is slightly more transmissible (Ro).

- Incubation of COVID-19 is between 2-14 days with a mean incubation time of 5-6 days.
- During that time and after onset of illness, an infected person is likely to pass it on to 2-3 others. Any transmission rate greater than 1:1 creates an exponentially growing epidemic.
- Typically, 80% of those infected have a disease that may feel like a very bad flu, but 20% of those infected get a serious illness requiring medical attention and or hospitalization.
- About 2-3% of those infected die from this disease, with fatality more often among those who are older and with underlying health issues.

Therefore, we can surmise that COVID-19 is harder on individuals than the measles or a bad influenza but not as bad as SARS and Small Pox. Since there won’t be a vaccine for at least 12-18 months and there won’t be any very effective anti-viral treatment available for at least 6-12 months, it’s really

important to do what it takes to avoid infection as it moves through your community. Below is a chart from the Journal of Microbes and Infection (Feb 2020) comparing the Case Fatality Rate (%) and Transmissibility (R_0) of COVID-19 against 10 other emerging viruses. Note that the case fatality rate is 100 times more than the H1N1 flu of 2009, and that its transmissibility is slightly higher than the H1N1 flu of the 1918 pandemic.

Virus	Case Fatality Rate (% of infected who die)	R_0 (# of others infected by a carrier)
Rhinovirus (common cold)	<0.01	6
Flu H1N1 (2009)	0.03	1.2–1.6
Measles Virus	0.3	12–18
Flu H1N1 (1918)	3	1.4–3.8
2019-nCoV	3	1.4–5.5
SARS-CoV	10	2–5
Small Pox Virus	17	5–7
MERS-CoV	40	<1
Avian Flu H7N9 (2013)	40	<1
Ebola Virus	70	1.5–2.5
HIV	80	2–4

Feb. 4, 2020 Jieliang Chen, Journal of Microbes and Infection, <https://doi.org/10.1016/j.micinf.2020.01.004>

How long will we need to be concerned? If it follows historic patterns, there will be a wave in the spring and another in the fall, in each locale. That means we're dealing with this into the summer of 2020 at a minimum, but more likely through the fall.

The links below are the most credible sources I have found to date on COVID-19 and will offer reports as the pandemic arrives and subsides in each locale. Also monitor your state and local health agencies and other local expert sources. Be very aware of the credibility of your sources, there will be a lot of misinformation floating around.

Back to the readiness workbook: When COVID-19 emerges in your town, which will happen any day now, you'll want to be ready for it. The intent of the workbook is to help people have a healthy attitude about readiness, check lists to facilitate preparation for a spectrum of disaster/emergency scenarios, and to provide perspective on how to communicate about an epidemic threat with family, co-workers, employers, and community members so that everyone could take meaningful action.

Once updated, the workbook will reflect specifics of this disease and current lists of sources for reliable information. Below are my top 5 sources for this topic in 2020. Beyond those changes, the checklists are very relevant as is and should be helpful to you. Begin with the checklists for extended home stay (food supplies) and home treatment should someone get sick.

There is no indication in the recent reporting of infrastructure shutdowns -- failures in utilities like water, electricity, gas, or phone/internet – which might have been expected with an Avian Flu and SARS epidemic, so preparing for those doesn't seem critical. However, it is reasonable to think that small towns and rural areas may be vulnerable or slow to repair problems if workforce absenteeism is high. Supply chains of various kinds are likely to be disrupted, as we are already seeing from China's temporary shutdown of all kinds of manufacturing capability. Lastly, it doesn't appear that preparing for evacuations will be necessary. Just the opposite, voluntary quarantines are already being requested for those who know they are sick. There will likely be more forced quarantines for travelers coming from certain areas.

In a nutshell, prepare your household for extended home stays on the order of a month long when the disease is in your area. Plan on social distancing for several months, and real vigilance for the next year as we all learn how to cope with, prevent, and treat this new disease. Beyond that, there are a many scenarios and topics that are covered in the workbook and from other sources.

Feel free to share this email, refer folks to the links below, and keep an eye out for an updated workbook from me in the coming week. I will begin hosting a regular conference call for any who wish to discuss these topics, support your action planning, and for general moral support. During those calls, participants will be pointed toward best practices, practical guidance on the checklists, credible information sources, and ways to manage the anxiety which comes with a public health emergency.

Best wishes to you, and all our extended friends and families.

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Top 5 Sources for Credible Information on Coronavirus COVID-19:

- **Coronavirus COVID-19 Global Cases by Johns Hopkins CSSE**
<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>
- **CIDRAP** (University of Minnesota Center for Infectious Disease Research and Policy – Novel Coronavirus COVID-19 Resource Center)
<http://www.cidrap.umn.edu/infectious-disease-topics/covid-19>
- **CDC** (Centers for Disease Control and Prevention) <https://www.cdc.gov/>

- **WHO** (World Health Organization)
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- **Novel Coronavirus Information Center** (hosted by Elsevier, a compiler of free health and medical research on novel coronavirus (2019-nCoV)
https://www.elsevier.com/connect/coronavirus-information-center?dgcid= SD_banner#research
- Also, look up your city, county, and state health departments, as well as expert sources like local university medical schools. They will have updates and resources for your locale.

About Joe Sterling:

- I come from three generations of physicians who worked with patients in the polio epidemic of the 1940s and each influenza pandemic from the catastrophic 1918 Spanish flu through the 1957 and 1968 influenza pandemics – a century of practical family wisdom from dealing with infectious diseases in community.
- From 2003 through 2008, I responded to wildfire damage that disrupted families and destroyed communities across San Diego County in many of the same ways that epidemics disrupt daily life where they burn through populations.
- Founded and ran a disaster relief center for a year at my own facility after wildfire damaged or destroyed the homes of over 100 families in my immediate area.
- Worked with non-profits and governments to assess community disruption, recovery efforts, and direct aid across two cities after wildfires in 2007 that burned over 2000 homes.
- Designed and facilitated revitalization efforts for a town of about 20,000 where businesses and community organizations were hit very hard.
- As a professional strategic planner and community development facilitator with over 25 years' experience, it's my practice to synthesize credible research into methods to get positive results.
- Received commendations for humanitarian service and community leadership from:
 - US Congress, California State Senate and Assembly, County of San Diego, Alpine Chamber of Commerce, and received the KGTV Leadership Award.
- Have earned degrees in humanistic psychology and organizational psychology.
- For my consulting bio see <http://rfs-llp.com/bio-joe-sterling>.