

Introduction to Seasonal Influenza (Flu) in the Midst of COVID-19

Seasonal Flu is an illness that is best avoided and those that have had it would prefer to never get it again. There are a variety of ways to help prevent Flu which some people use during the 'viral season'. Those recommendations will be outlined later in an attachment to this article of what Public Safety and First Responders can do to prevent Flu. But, first, let's explore what Seasonal Flu and COVID-19 in the same season may mean.

Most respiratory viruses, particularly colds and flus, occur mostly in the cooler months of late fall through early spring, although Seasonal Flu has had an extended run in the past few years, with some years having an earlier start and/or stretching into late spring. This means that those in the Southern Hemisphere (below the Equator) have a viral season opposite ours, and we can gain some insight into what our flu season might look like, while reviewing theirs. And, if the Northern Hemisphere season is like the Southern Hemisphere's, then we'll be in good shape. Their Flu season is considered over and, according to an article in *Science* by Kelly Servick, published on-line on Aug 14, basically, non-existent. This has been collaborated by the WHO and CDC. A replication of the numbers in the *Science* article includes a comparison of Flu seasons in 2018, 2019 and 2020 from April – mid August, and includes the following:

Country in Southern Hemisphere	2018	2019	2020
Argentina	1517	4623	53
Chile	2439	5007	12
Australia	925	9933	33
South Africa	711	1094	6

The countries 'Down South' had braced for a huge hit to their health systems, particularly hospitals, which expected both Flu and COVID, but found that Flu was mostly absent. The epidemiologists from those countries recognize that the lack of Flu cases is partially due to people not wanting to present to health care providers for fear of being exposed to COVID. However, that fear would not change the percentage of those that would develop complications of Flu, be hospitalized, and even die, and those numbers were also overwhelmingly down. **In fact, the scientists and health care providers expect that most of the difference was due to the mandated use of proper masking, stay-at-home orders, closed shops, schools, churches & entertainment facilities, frequent proper hand washing, isolating when having any symptoms or when exposed to someone who was sick. Also, and perhaps most important of all, is the wide spread use of the annual flu vaccine. Most countries in the Southern Hemisphere had national mandates to use these practices and did. And, it looks like it worked.**

So, will the Northern Hemisphere see the same extraordinarily light Flu Season? It's unknown, but public health authorities and health care providers are bracing for a threat like the one this past Spring, but are confident that they know how to better treat those that develop COVID, and have treatments for flu as well. In the U.S., unlike in many So.

Hemisphere countries, most lock downs have been lifted, many colleges and K-12 schools are opened, and many people are tired of restrictions and mask wearing, even if they followed the guidelines at one time. Places like Canada, where COVID infections have been kept to 144,000 total cases and only 9,219 deaths in the entire country to date, are much more likely to limit their Flu and COVID load by following recommended safe practices, even though there are reports of increasing cases in Ontario and Quebec, traced back to mostly large gatherings. The U.S. is less likely to be able to limit outbreaks since so many jurisdictions, even those with elevated rates of COVID cases and positivity rates, have lifted many provisions that either kept COVID numbers down or controlled outbreaks by following infection control mitigation recommendations. Flu is spread much the same way as COVID-19, but not nearly as easily.

There is no guarantee, even if all the prevention strategies listed above are used, that we won't have a hard double-hit from COVID and Seasonal Flu. However, it is more likely we will begin to overwhelm our hospitals and ICUs again if precautions are not adopted in most places and/or rapid testing & contact notifications are not made a priority. Last Flu season (2019-20) was considered a bad one and broke several records. Multiple studies and lab testing of blood samples have showed that what was "diagnosed" as Flu, either because it fit the symptoms, although no Flu test was done and there was no test for COVID, or when COVID tests were not widely available, so the CDC recommended using a COVID test only if the patient was symptomatic and the Flu test was negative. Samples that were retrospectively tested for flu, having been sent to public health labs for flu testing and stored, were sometimes positive for COVID, sometimes positive for Flu and, occasionally positive for both at the same time. That taught us two things. There was COVID in the US before the first case was identified, and there have been patients that have tested positive for both Flu and COVID simultaneously, and are therefore co-infected. There have also been coinfection cases of COVID and other circulating respiratory viruses. Since the symptoms for all these respiratory viruses are so similar, in order to treat them, testing will need to be done to determine which virus(es) a person has and what they need.

There are two attachments to this article designed to help Public Safety/First Responders prepare for whatever the 2020/21 Flu Season in the midst of the COVID-19 Pandemic will bring. Smart and logical steps to help prevent one will also help prevent the other, as well as other respiratory viruses that circulate during Flu Season. This is particularly necessary for those performing EMS activities whether as a stand-alone EMS Service or associated with a Fire-Rescue Department. There is a duty to protect the current patient(s), and the ones to follow, crew family members, receiving hospital personnel, and co-workers in the rig or in quarters. The first attachment is a list of Recommendations to consider for all Public Safety personnel with added ones for EMS. The second attachment is a list of Links & Resources on the topic of Flu and COVID, which includes CDC Guidance, and other mostly journal or medical news articles, on COVID & Flu, what happened during Flu Season 2019/20 and COVID, as well as during Flu Season 2020 in the Southern Hemisphere (we hope we can be that lucky!!). Lastly, stay tuned as more Seasonal Flu and COVID articles are posted.