Faust, Jeremy Samuel, and Carlos Del Rio. "Assessment of Deaths From COVID-19 and From Seasonal Influenza." Jama Network, 14 May 2020, jamanetwork.com/journals/jamainternalmedicine/fullarticle/2766121.

In this online article, the authors wrote that public officials have been comparing the COVID-19 mortality rate to the mortality rate of seasonal influenza as an attempt to minimize the effects of the ongoing pandemic. To support their claim, the authors say that the equivalence of deaths from COVID-19 and seasonal influenza do not match conditions in frontline clinics and hospitals, especially in pandemic hot zones were hospitals have been filled to full capacity, and have been worked beyond their limits. They also say that there has never been such a high demand on hospital resources in the United States, even during the worst flu seasons. The article states that the case fatality rate of the Diamond Princess cruise ship outbreak was 1.8%, thirteen deaths out of seven hundred and twelve cases, as of late April 2020. If this figure was adjusted to reflect the general population, the figure would have been closer to 0.5%. A case fatality rate of 0.5% would still be five times higher than the commonly cited case fatality rate of adult seasonal influenza. The authors of this article also claim that deaths from COVID-19 maybe be undercounted due to limitations of test capacity or false-negative virus test results. However, something else that's been effecting the COVID-19 death count is that in some places like New York City, both probable, and confirmed, COVID-19 deaths are being reported. This has created the possibility that some deaths that have been labeled as having been caused by COVID-19 are not due to COVID-19.

The counts of people who have died from seasonal influenza could be less reliable than the counts of people who have died of Covid-19 because adult influenza deaths are not reportable to

health authorities, unlike COVID-19 deaths. Epidemiologists actually have to rely on surveillance mechanisms that attempt to account for potential underreporting, due to the fact that adult seasonal influenza deaths are not reportable. I believe that this source is credible. I thought that the authors of this article provided there readers a very informative viewpoint, and used evidence to back up there claims. The authors are both medical doctors which I believe are appropriate credentials for this topic. I have two questions. Could the reason why seasonal influenza isn't as deadly as COVID-19 be because we actually have vaccines for seasonal influenza? What is the medical profile of the people dying from Covid-19? I believe that it is important to know how dangerous these diseases can be, and that the people who are more vulnerable to these diseases like people with preexisting conditions should hear about this, and do what they can to stay safe.

Two quotes from this article that I think are important are:

"Comparisons between SARS-CoV-2 mortality and seasonal influenza mortality must be made using an apples-to-apples comparison, not an apples-to-oranges comparison. Doing so better demonstrates the true threat to public health from COVID-19."

"Although officials may say that SARS-CoV-2 is "just another flu," this is not true."

Willis, Olivia. How Does Coronavirus COVID-19 Compare to Flu?, 19 Mar. 2020, www.abc.net.au/news/health/2020-03-20/how-coronavirus-covid-19-compares-to-flu/12073696.

COVID-19 also known as coronavirus is compared to seasonal influenza also known as the flu in this article from ABC news. The first thing that the news article talks about are the ways that COVID-19 and seasonal influenza are similar. The two diseases are both caused by viral infection, and they both can cause fever, coughing, and a sore throat. The symptoms of both diseases can vary from mild to fatal. They are also both transmitted in the same way, via respiratory droplets. According to the article, researchers from Australia have discovered that the immune systems in our bodies respond to COVID-19 in the same way as it would to seasonal influenza. The immune system cells that appear in the blood before patients recover from COVID-19, are the same cells we see in the blood of patients before they recover from seasonal influenza.

The article then claims that COVID-19 is more contagious than seasonal influenza. They wrote that epidemiologists use a few different measures to work out how far and fast a virus is likely to spread. One of these is called the basic reproduction number, also known as the R naught, or R0. The Article refers to an infectious disease specialist named Doctor Sanjaya Senanyake who said that the R0 refers to the number of secondary infections generated from one infected individual. Dr. Senyake also says that For COVID-19, that number is 2 to 2.5. That means one person with COVID-19 goes on to infect “two or two-and-a-half people”. The R0 value for seasonal influenza varies, but is estimated to be around 1.3. That means that COVID-19 could be almost twice as contagious as the flu. Another claim is that COVID-19 is deadlier than seasonal

influenza. Most people who catch COVID-19 or seasonal influenza recover from these diseases. The news article states that eighty per cent of people with COVID-19 just have a mild to moderate illness that lasts about fourteen days or two weeks. However, the fraction of people who develop severe symptoms from COVID-19 is higher than it is for seasonal influenza. According to the World Health Organization, fifteen per cent of COVID-19 cases are severe infections that require oxygen, and five per cent are critical infections, requiring ventilation. At the time that the article was written, the global case fatality rate was over three percent, but the author thinks that it is probably closer to 1 per cent. At a rate of one per cent, COVID-19 would be about ten times more deadly than the flu. The flu is estimated to kill between 290,000 and 650,000 people globally every year. I think that this is a good news article. I think that the author wrote an interesting, and very informative news article, with claims that I believe are legitimate. The author uses information from credible sources like the World Health Organization, and health experts, to back up there claims. If I could say something to Olivia Willis it would be that she is doing a great job at informing people about the similarities, and differences, between COVID-19, and the flu. I was surprised to find out that COVID-19, and the flu, are so similar that our immune systems even respond to them in the same way. I think that knowing the similarities, and differences, between COVID-19, and the flu, is important.

A quotes from this news article that I think is important is:

“Many people who fall ill with the new coronavirus disease will experience mild, flu-like symptoms. But COVID-19 is not the same as flu.”

Larson, Jennifer. “When Is Flu Season and Why There Is a Flu Season in the First Place.” Insider, 28 Feb. 2020, www.insider.com/when-is-flu-season.

In this magazine article, the author states that for the past 35 years, activity from seasonal influenza has peaked in the United States in February, according to the Centers for Disease Control and Prevention. The author cites an associate professor of epidemiology at the University of Wisconsin-Milwaukee's Joseph J. Zilber School of Public Health named Amanda Simanek, who said that In the Northern Hemisphere, including the United States, "flu season typically picks up around October, and it can usually peak between December and February, but we can see cases as late as into April and May". The opposite happens in the southern hemisphere. Flu season typically runs from April to September and often peaks during August. These are the winter months for the Southern Hemisphere. The author states that a major reason why seasonal influenza tends to peak during the fall and winter is because of the cooler temperatures, and dryer weather, during those times of the year. This is because the virus has a gel-like coating that surrounds it while it is in the air. In colder temperatures, that gel-like coating, which is made of fats and oils called lipids, hardens into a shell around the virus. This protects the virus and keeps it alive long enough to spread between victims. The flu’s lipid coating degrades in high temperatures, exposing the virus to the environment, and making it easier to destroy. When you come into contact with the flu virus you can still get sick no matter what season it is though, it’s just harder for the flu to infect people areas with higher temperatures. Once the virus is inside you, your body temperature degrades the coating, and this releases the virus. If you get the flu, you will be contagious for five to seven days after your

symptoms begin. Also people tend to stay indoors in close proximity to each other more often during the winter, and this makes it easier for seasonal influenza to spread.

I think that the author wrote this article using a style that they thought would be easy for the average person to read, and that would grab, and keep their attention. I believe that the claims made in the source are legitimate. The author of this magazine article is a freelance writer for insider, but the article was reviewed by an MD named Tania Elliott, who specializes in infectious diseases related to allergies and immunology for internal medicine at NYU Langone Health. The article proves that my hypothesis that the flu is less resistant to heat than COVID-19 is correct. I liked that I was able to learn exactly why the flu is so vulnerable to heat from the article.

Two quotes from this article that I think are important are:

“The flu tends to spike in the fall and winter for a major reason: the temperature.”

“The flu is an airborne infectious disease. So in order to spread, the virus needs to survive long enough in the air to travel from one person to the next.”