Expertise, Responsibility, and News Framing: A Critical Media Analysis of the 2017-18 Influenza Season in the United States



Senior Comprehensive Project

In partial fulfillment of

Bachelor of Science Degree

Global Health Studies

April 2019

Lauren Janelle Bodi

(This page intentionally left blank for printing double sided)

Expertise, Responsibility, and News Framing: A Critical Media Analysis of the 2017-18 Influenza Season in the United States

April 2019

Lauren Janelle Bodi

This work is mine unless otherwise cited

This senior comprehensive project has met the minimum requirements of the Global Health Studies major for a Bachelor of Science degree

Dr. Vesta Silva	Dr. Rebecca Dawson
Date	Date

(This page intentionally left blank for printing double sided)

ABSTRACT

Name: *Lauren Janelle Bodi*

Graduation Date: *May 2019*

Title*:* *Expertise, Responsibility, and News Framing: A Critical Media Analysis of the 2017-18 Influenza Season in the United States*

First Reader: *Dr. Vesta Silva*

Second Reader: *Dr. Rebecca Dawson*

Each year within the United States, there is an influenza season. The process in which we as a society understand what the flu is, where in the country it is most active, and the ways that people can best protect themselves from the flu is very important. However, as all of this information is important, it is also necessary to think about the ways in which people get their information surrounding illness and disease. Within this project, I look at the ways in which the media frames information surrounding health and illness. To do this, I look at the 2017-18 influenza season in the United States. While evaluating 60 major media news articles, I found themes within the media that discussed the flu season. Ultimately, I found that there was a strong emphasis of how the articles position the reader surrounding feelings of expertise, responsibility, and superiority. I found these conclusions by evaluating stories that crossed three themes: The Death of a Healthy Person, The Death of a Child, and the Seasonal Influenza Vaccine. The work for this project is incredibly important for understanding how society is positioned by the media to feel or react a certain way surrounding illness and disease narratives.

(This page intentionally left blank for printing double sided)

Table of Contents

Acknowledgements ……..8

Introduction……10

Literature Review……...……13

Illness and Health in the Media……13

News Framing of Illness Narratives……..15

Public Understanding of Illness Narratives……..19

Context and Background……....23

The Influenza Virus……23

Influenza Vaccines……25

Social Constructions of Reality……28

Theory……..31

Expertise……31

Rhetoric of Expertise……33

Analysis……35

The Death of a Healthy Person……35

The Death of a Child……..39

Flu Vaccines……..45

Conclusion……53

References...……..56

(This page intentionally left blank for printing double sided)

Acknowledgements

The first person that I would like to thank is **Dr. Vesta Silva**. If it were not for you, this project would not be what it is today. I greatly appreciate all of your time and effort that you spent working with Hope and I in our weekly Wednesday meetings. Thank you for always cheering us on and lifting us up when we started to get down on ourselves. Thank you for making this possible.

This leads me to my second thank you and second reader, **Dr. Becky Dawson**; thank you for your constant feedback and pushing me to be better. You have truly made my work interdisciplinary and helped me create a bond between science and communications.

A huge thank you goes out to my comp buddy, **Hope Albert**. Thank you for going through this process with me every step of the way. You always had the right answers to my panic texts and I can't thank you enough for that. You rock, bud.

To my **mom**, thank you for being you. I appreciate you always being willing to read anything I send you and for always being honest with me. Without you and **Deb** I would not be where I am today. Thank you for constantly pushing me to be the best version of myself. Thank you being my biggest support system and biggest cheerleader throughout life. I love you.

To my shoremates: **Marley, Maria, and Jillian**, thank you for letting me talk your ear off about this project. You were always there to listen to anything that I had to say. I am so thankful to have you all in my life.

Finally, **Nana and Paappa**, thank you for being my inspiration. Keep watching over me. I love you more.

(This page intentionally left blank for printing double sided)

Introduction

According to the CDC, the 2017-18 influenza outbreak was the first seasonal influenza outbreak to be classified as high severity in all age levels (CDC, 2018). With this classification, that means that all age ranges experienced high numbers of diagnosed influenza as determined by a medical professional, hospitalizations, and death from complications of influenza. In other terms, this past flu season was severe all across the country. However, how do we know this information and begin to process the statistics and suggestions experienced and respected medical professionals across the country give to us? For many Americans, the means of getting this information regarding health issues and concerns is through major media news outlets.

The spreading and sharing of news stories, both written and on the television, are one of the main ways that many Americans receive their information. However, these news stories are shared in a way that the news outlet believes will get the most attention. These stories are eye catching, engaging, and entertaining. So, perhaps these stories that are being shared with the public have necessary information, but are being told in a way that changes the way the public views someone or something. By carefully examining these stories, the articles position the reader to question the topic at hand. In the case of this project, that topic is the 2017-18 influenza season in the United States.

For my project, I evaluated 60 major media news articles. The majority of these articles came from sources such as: *CNN, The New York Times, NBC News, ABC News, The Washington Post,* and *CNBC* to name a few. There were also some articles that were evaluated from smaller news stations in a specific state; however, those were not evaluated as closely. Finally, there are some stories that are included that came from magazines, such as *People* magazine. When

choosing these articles, I picked headlines that specifically talked about the flu season. I also limited my dates of choosing these articles, starting at October, 2017 and ending before the next flu season in September, 2018. This was necessary so I was not getting information regarding the next flu season and only focused on the 2017-18 influenza season. After finding and reading through my articles or watching the corresponding videos, I came across many themes, and within those themes, I found my argument for my project.

The themes within these stories were really important and were framed in a such a way that engaged the audience. These themes that I found within the articles were: a flu related death of a healthy adult, a flu related death of children, and the discussions of the seasonal influenza vaccine. With these themes, it became clear to me what the media's role was throughout the reporting of the 2017-18 influenza outbreak. Ultimately, I argue that there is a strong emphasis to frame the blame, responsibility, and competence of the individuals that are involved in the seasonal flu. The media positions the reader to feel a sense of superiority over the individuals who were greatly affected by the flu. By the way that the media frames the stories regarding the flu season, the news outlets have the power to influence the public's views and opinions on their personal health, specifically surround the seasonal flu. Throughout the course of this project, I will be using the term "frame" quite often. When speaking about how the news media frames a story, I will follow the definition given by Ott and Aoki (2002) in their article "The Politics of Negotiating Public Tragedy: Media Framing or the Matthew Shepard Murder". The authors state, "Frame analysis looks to see how a situation or event is named/defined, and how that naming shapes public opinion" (p. 485). In other words, I will be looking at how the media is shaping the stories of the flu in a way that positions their audience.

The work that I have done throughout this project, as well as the topic at hand, is important for many reasons. The first being that the health news narratives are extremely important to the public. With the news being the major way that many people get their information, the media outlets can be incredibly persuasive. This work matters for identifying the ways that they are being persuasive because people then can see and understand how these stories are designed to make people feel positioned either way. The ideas of the social construction of reality are greatly emphasized throughout these news stories. Meaning, the stories are shaping and forming people's knowledge and opinions on certain topics without the audience really even knowing. By dissecting the major themes throughout the news media, you can start to see the patterns in which the media is influencing the public.

The type of work for identifying the themes within media reporting are extremely important when looking at health narratives. When it comes to flu, there is a seasonal influenza each year, resulting in many people knowing what the flu is or how severe it can get. The news media emphasizes these points and constructs stories around the outbreak to change the behavior of the people. This could be something like knowing the early signs of the flu, which results in knowing when to seek medical care or telling people that the flu vaccine is necessary and sharing stories that convince them that they need to this seasonal vaccine. Overall, this work is highly important because we are able to evaluate how the media takes a story of illness outbreak and uses it to persuade the audience. We need to care about what stories the media is sharing to better understand how health outbreaks truly get framed and what the real information regarding the outbreak is.

Literature Review

News media is a primary way that information spreads to the public. This is especially true when it comes to recent illness outbreaks around the world. News media sources, whether that be segments on the daily news channels or articles published online, share the stories of the information that the public needs to know. Many scholars have written about the impact that the news media has had on the public over the course of multiple illness outbreaks. Although these authors are covering different outbreaks, there are many common themes throughout the different articles. Some of these themes include: the overall definitions of illness and health, the way the stories are framed, limitation of information, the focus on governmental organizations, and the public's understanding of the subject matter. This literature review will focus on these major themes of news coverage of major illness outbreaks.

Illness and Health in the Media

The way that we as a society view and interpret health and illness is greatly impacted by what we see and interpret in the media. By getting a clear understanding of what the definitions are of health, illness, and disease can allow for a better basis of how the media uses these terms to tell narratives surrounding illness. In the book, *Communicating Health and Illness*, the author does a great job describing what is included within health narratives. When first discussing the health narratives in the media as a whole, Richard Gwyn describes how the illness narratives are shared. Gwyn (2001) states, "When we open the newspapers or switch on the television or radio, we encounter an increasing variety of articles and programmes offering information, advice and warnings about every conceivable dimension of health and care of the body" (p.13). In this quote, Gwyn starts to describe how the audience that is encountering these types of media sees

the different types of stories that get shared about health and potential threats to the body. The author then goes forward to discuss how the media and the stories regarding health in the media go on to change the audience. Gwyn (2001) says, "Campaigns aimed at encouraging individuals to change their behaviour, and to minimize risk taking, are therefore regarded as wholly benevolent" (p.15). The idea of changing the behavior of a person that is reading or viewing these news stories is incredibly important to understanding how the messages of health get interpreted. However, it is also important to understand how health is differently portrayed in the media. For example, Gwyn talks about how the idea of a healthy person is seen in advertisements, health and fitness magazines, and in different health columns in newspapers. But what is health and illness overall?

Gwyn discusses the definitions of both health and illness, allowing for a better understanding of how health is being portrayed in the media. The author states that illness can be interpreted differently around the world. However, the overall understanding of illness is that it is a social phenomenon that involves a person and a medical professional. Gwyn also makes a statement that illness is a learned behavior (Gwyn, 2001). Alternatively, within *Communicating Health and Illness*, the author defines health simply as the absence of illness (Gwyn, 2001). With these definitions of health and illness, there is a better understanding of what people are going through and what they are experiencing within illness narratives.

The final discussion that is critical to understanding illness narratives is by understanding what a narrative is and how it became a norm within the discussion of health. Gwyn (2001) defines narratives as, "Narrative is the form of human representation concerned with expressing coherence through time: it helps to provide human lives with a sense of order and meaning"

(p.136). With narratives being an outlet for humans to express their concern and their experiences, it allows for illness to get talked about and interpreted in different ways. Finally, the voicing of illness is heard in the way of a narrative, showcasing the different personal experiences with illness (Gwyn, 2001). The narrative then allows for the media to make it the narrative of the illness into a news story that will grab the attention of the viewers. These early definitions encompass the illness narrative and is crucial for understanding then how the media can change these stories in order to frame the information that the media companies are providing to their audience.

Framing of Illness Narratives

The stories that are being produced by the media are ones that want to spread knowledge about the recent illness outbreaks but also create an interesting and eye catching story. The way that different media sources and journalists do this is by framing the story in a particular way. There are many different ways that an illness outbreak narrative can be framed. It could be framed within the best interest of the public, the way that the government organizations want to promote the outbreak and the information that they care to share the information, or frame the story into an interesting piece about an illness we have not seen in awhile. All in all, there are many different ways that the media could frame the outbreak.

The framing of news media is the way that the media shapes the story, in this case, around illness narratives. The authors of the article *Framing of Mad Cow Media Coverage* by Ruth et al., dives into what the framing was around the news media coverage during the mad cow disease outbreak in 2003. Throughout the article, the authors were able to explain what different emphases were put on the coverage of the mad cow disease outbreak. These frames that

the authors are discussing are prominent in more than just the spreading of the mad cow disease, but in a lot of major illness outbreaks. The first frame that the media used to describe the mad cow disease was through an economic perspective. The authors discuss the economic framing as making the disease the bad guy, but mainly taking its toll on the cattle farmers, who were losing a lot of their profit (Ruth et al., 2005). Throughout this framing, the media showed the impact that there was on the cattle industry. The economic impact was one of the few frames that the media took when talking about mad cow disease, one of the next major frames that was used in the media was the frame of blaming, or who was at fault for the start of the mad cow disease outbreak.

The frame of blame and responsibility in the media is a common one that is used for many illness outbreaks. Meaning, the media is victimizing someone or something for the cause of the outbreak. Ruth et al. (2005) describe this frame as, "The 'blame and responsibility' frame focused on the finger-pointing aspect of the mad cow outbreak. Issues like who was at fault for the outbreak, why and how it happened, and who was going to take the blame were covered within this frame" (p. 8). The blame and responsibility leads to the media trying to follow or figure out what happening within the illness outbreak. However, although this framing was brought up when discussing the mad cow disease, almost every illness outbreak is framed in the blame and responsibility way. This is also true in the 2003 SARS outbreak. In the article *New discourse on distant suffering: A Critical Discourse Analysis of the 2003 SARS Outbreak* by Stijn Joye, the author discusses how SARS outbreak was framed in different ways as well. One of those ways being how the media sources in one geographical location blame the spreading of the disease on another geographical location. Joye (2010) states, "...SARS represented a purely

Chinese medical issue with no relevance to Belgium or any other Western country, hence the absence of any coverage. This reveals a very Euro- and ethnocentric vision of news media in their coverage of global suffering" (p. 592). In this quote, Belgium was considering itself a safe space and completely blaming China for the spreading of SARS. The blaming frame allows the media to take an investigative role in supplying information to the lay people to ensure that people are protecting themselves as best they can from the illness and also that they can blame someone, perhaps other than themselves, for starting the disease, just as Belgium did when SARS spread to the country from Chinese. Another frame that is prominent both in the mad cow disease media coverage was the frame of the health risks.

The health risk frame discusses what the illness could potentially do to a person as well as what potentially risks are prevalent to the public. Ruth et al. (2005), states, "The health risk frame, more so than any other frame, reported information that was conceivably out of proportion to the real health risk that this disease posed" (p. 12). In this statement, the authors mean that the health risks that are actually very much prevalent within the illness outbreak, reporting on what could be harmful to the person or not (Ruth et al., 2005). The authors state, "Here, information presented in the articles reaffirmed that the disease was under control, diseased meat never made it into the food chain, beef was safe to consume, and the disease was an isolated case" (Ruth et al., 2005, p. 8). The health risk frame tells the public that things are simply not as bad as they seem. This frame provides the statistics of illness outbreak but they also direct the attention of the public to the things that are important to know to reduce the risk of getting the illness. Health risk framing also is prevalent when discussing other illness outbreaks such as the seasonal influenza outbreak. In article by Smith et al. (2012), the authors discuss how

the media can change the way the illness is perceived by the public. The article states, "News coverage can link medical and public conceptualizations of health, turning medical findings into public knowledge, and revealing risks not otherwise apparent" (p. 848). The revealing of these risks that the author discusses relates back to what Ruth et al., was stating: the lay public is not fully aware of all of the risks that are present. The media picks and chooses which information they find to be the most important.

The different ways that the media frames the information that is provided to the public regarding an illness outbreak is important in understanding the type of illness narrative the media outlet wants to portray. With the discussion of the economic frame, there is a sense of guilt that the viewer feels for these business owners that may be taking a loss from the illness outbreak. This then could result in the person doing everything they can to protect themself from the illness outbreak, which in turn helps stop the outbreak from spreading. The second frame that was most common was how the media tries to blame and make certain people or places feel responsible for either "starting" the outbreak or spreading it further. This type of information allows the lay public to make themselves feel less guilty having so many people fall ill. Finally, the health risk frame is arguably the one that gets the most attention. This frame allows people to see what they could be potentially at risk for. However, the media also over sells the statistics that are being supplied by the government to make the illness outbreak sound better or worse than what it actually is. The frames that the media uses greatly differs on the outbreak at hand but also is important to see how differently the information can be distributed to the public. However, how the public interprets these frames is also very important for how the media presents the information on illness outbreaks.

Public Understanding of Illness Outbreaks

In the article titled, *Death and Illness as Depicted in the Media* by Williamson et al. (2011), the authors state, "The media is considered to be the most important source of health information for the general public" (p.547). News outlets sharing stories of illness outbreaks can be very beneficial to the lay public that are watching and reading the information. Simply because they are able to get the information quickly and efficiently from one source. The segments surrounding the illness are usually short and easy to understand. However, there also can be issues within these news stories with relating too much to the public, or the news stories sharing too much of the wrong information that the public does not necessarily need. Williamson et al., acknowledges that the media is not there simply to promote health needs and education, however, they can change the way that the public receives and interprets the information regarding the prevalence, severity, and the outcomes of the illness outbreak (Williamson et al., 2011). With these media platforms discussing only parts of the outbreak causes the pubic to not have the full story on the outbreak. Some of the times when the limitations of the full illness narrative comes to light is during food related illness outbreaks, such as the E.coli outbreak that was found in fresh spinach in 2006.

When there is an outbreak caused by a foodborne illness, it is incredibly important to spread the best information possible to the public to stop the outbreak all together. In the article titled *When Good Food Goes Bad* written by Nucci et al., the authors discuss the news media coverage of the E.coli outbreak caused by fresh spinach in the United States in 2006. One of the main points of the article had to do with the little knowledge that people have on foodborne illnesses and how they occur and can be avoided. Mainly, there is little to no information

provided to the public regarding product recalls and what the alternative options are to get the food that you need (Nucci et al., 2009). The authors say that the early communication of the media sources to the public regarding these recalls are majorly important, however the recalls do not usually make the news until something catastrophic happens (Nucci et al., 2009). Without the information needed to make the proper decisions on what food the public can and cannot buy, it leaves the people confused about the actual outbreak at hand. When dealing with foodborne illness, the authors also say that the information that is provided is greatly focused on what the government organizations are saying.

However, it was not just with spinach and E.coli that scholars mentioned the knowledge of the public regarding foodborne illnesses. In Iowa in 2010, there was an egg recall that was in place from multiple incidences of salmonella poisoning. In the article written by Laestadius et al., titled *Print news coverage of the 2010 Iowa egg recall: Addressing bad eggs and poor oversight*, the authors discuss how the media can be beneficial to the public for understanding the illness outbreak. Differing from Nucci et al., the authors state that the reporting of the incidence of foodborne illness, especially in the case of the egg recall, helped inform the public about what to buy and what food brands they needed to stay away from. Laestadius et al. (2012) state, "First, the media informs the public about direct threats to their health, allowing them to change their purchasing habits accordingly" (p.752). Furthermore, the authors state that the media is giving enough knowledge to the lay public to better understand that process of testing the food that people consume. The Laestadius et al. (2012) states,

> Second, the media can also provide a policy-relevant public health benefit in that coverage can bring attention to the more systemic causal factors behind events such as the egg recall and may generate support for legislative or regulatory reforms that would reduce the risks of future foodborne illness outbreaks. (p.752)

The authors reiterate the fact that the public needs to get a good idea of what is happening within the food industry to help prevent these outbreaks from happening again in the future. However, the media can only give so much information to the public about the outbreak, which could be problematic for what information is being shared about the outbreak. For instance, if the media focused simply on the legal aspect of food inspection instead of the alternative product that a person could buy could cause a larger problem in terms of the outbreak. The discussion of what is being included in the news media regarding the illness outbreaks is important and could potentially be problematic.

The ways that the media presents the information, including at what time the information is on the news, can cause a different reaction to the illness outbreak information. In terms of a foodborne illness outbreak, Nucci et al., discusses who may be watching the news at specific times and absorbing the different information that is presented. For instance, the authors discuss that the media tries to present as much information as possible about the outbreak on the morning news, as there may be greater involvement in the stories and how people want go throughout their day in order to protect themselves from the illness outbreak (Nucci et al., 2009). It is important that the early stories focus on what the public should be doing protect themselves from the illness outbreak, rather than perhaps how to protect the public from the same illness outbreak in the future.

The way that the people in these areas of illness outbreak interpret and understand the information can have a positive or negative effect on the illness outbreak. However, the information that is chosen to be included in the media stories also could potentially have a positive or negative effect on the illness outbreak as well. These media outlets have to be

relatable and be understood by the average lay person, however, they also have to include information that may promote how to effectively reduce the impact of future foodborne illness outbreaks or really any illness outbreak in general. The focus on governmental organizations is another common theme that was found in the literature regarding the media and illness outbreaks.

The ways that the media present information regarding illness and illness outbreaks to the lay public is very important. As many scholars have shown, the ways that the media frame the illness outbreak are important to understand. Overall, the media is concerned about stories that are newsworthy, emphasizing whichever frames they feel most people can relate to or care about. The different frames of stories showcase that the illness outbreak may not be the most important aspect of the story, but the economical burden, political standings, and overall health and well being of the people being affected by the illness outbreak may take prescience. Resulting in the story not necessarily focusing on the information that the audience needs, rather, the audience gets information that does not necessarily benefit their health and wellbeing in a particular way. The ways that the lay public interpret the media could also impact the type of stories that are being told. The different scholars emphasize that the public must understand the contents of the news story, resulting in a story that may be leaving out some scientific information regarding the illness outbreak. The media is a crucial platform for the lay public to get their information regarding their health and wellbeing. With this information regarding different illness narratives in mind, the next section will discuss the background of the seasonal flu and specifically focus on the 2017-18 influenza season.

Background and Context

Each year in the United States there is an influenza season, usually beginning activity in October and peaking between December and February (CDC, 2018). The severity of the flu season can fluctuate each year, this is shown throughout the number of infections, hospitalizations, and flu related deaths (CDC, 2018). However, in terms of this project, I will not be looking at the seasonal flu virus itself, but rather how the information of the seasonal flu gets told within the media. Throughout this section, I will explain what the flu virus is and where the strain originated from. I will also be explaining how the flu vaccine is created, who is creating them, and the process of how seasonal flu surveillance happens around the world each year. Finally, I will be discussing crucial information to understand regarding the analysis of news media. This is the information of the social construction of reality as well as news media framing. In order to understand each of these aspects of the influenza virus, I will be analyzing them through the outbreak of interest: the 2017-2018 United States influenza outbreak.

The Flu Virus

There are many different types of flu and different mutations of the strain, making the flu very hard to protect against. According to the CDC (2017), there are four different types of flu virus. Influenza type A, B, C, and D. Influenza A and B are the most common types of flu that are active during seasonal flu outbreaks during the fall and winter months. Type A of influenza allows for different subtypes and strains of the virus. The strains that were the most prominent in the 2017-2018 influenza outbreak were the H1N1 and H3N2 strains. The “H” in the strain type stands for hemagglutinin and the “N” stands for neuraminidase. The hemagglutinin and neuraminidase are the two different proteins that lay on the surface of the flu virus, causing the

different subtypes of influenza A. There are 18 subtypes of hemagglutinin and 11 subtypes of neuraminidase, resulting in many types of mutation of the flu virus (CDC, 2017). Type A influenza is the only type that uses subtypes to describe the different proteins on the the surface of the virus (CDC, 2017).

Influenza B is also most common during the flu season. However, Influenza B can only be broken down into lineages and strains, unlike Influenza A which can be broken down into subtypes. Mainly, there are two strains of Influenza B circulating, B/Yamagata and B/Victoria (CDC, 2017). The last two influenza types are much less common. According to the CDC Influenza C does not normally cause severe flu symptoms and does not cause influenza pandemics. Mainly this type of influenza causes mild respiratory issues (CDC, 2017). The final type, Influenza D, is rarely seen in humans and refers to the influenza that is normally seen in cattle (CDC, 2017). However, in terms of the outbreak of interest, it is important to understand what strains were the most common within the outbreak. These Influenza A strains were the H1N1 strain and the H3N2 strain.

The H1N1 strain, commonly known as swine flu, is a fairly common flu strain. This strain has been prominent in previous flu seasons in the United States, such as the 2009 swine flu outbreak. This outbreak was serious because it lead to many influenza hospitalizations and deaths. The swine flu was initially linked to a strain of influenza that was found to circulate amongst pigs (CDC, 2009). The strain was then thought to swap genetic information with another couple of flu strains through a process called reassortment, causing the strain to be able to infect other animals and eventually humans (CDC, 2009). The H1N1 strain was prominent in the 2017-18 influenza outbreak in the United States, however, it was not the overall cause of why

the flu season was so severe. The main concern of the 2017-18 influenza outbreak was the H3N2 type A strain.

The H3N2 virus, sometimes referred to as the Hong Kong virus, is also a type of swine flu. In article published by Wen et al., the authors discuss the origins of the H3N2 strain. Similar to its name, the H3N2 strain is thought to have originated in Asia, where there is a different climate and migration patterns, allowing the virus to develop in a different way (Wen et al., 2016). The large population of people in Asia then allowed for the virus to spread further and infect more people (Wen et al., 2016). With the virus strain eventually reaching the United States, the strain has been hard to manage, as medical professionals saw in the 2017-18 outbreak in the United States. A factor of why the H3N2 strain is hard to treat is because the seasonal flu vaccine does not fully protect a person from this strain of the virus. The cause of this is how the strain reacts when creating the vaccine. The processes of creating the vaccine is difficult, resulting in the inability to guarantee 100 percent efficacy every flu season.

Influenza Vaccines

According to the CDC, influenza vaccinations are the single best way to protect yourself from the seasonal flu (CDC, 2018). Influenza vaccines are hard to create, simply because the flu virus changes and mutates each year. In order to create the vaccination that is the most protective, the vaccine needs to be updated each year. The CDC and the World Health Organization (WHO) use surveillance systems all around the world in order to understand what influenza strains are the most prominent and prevalent around the world. Some of these surveillance points are located in Atlanta, Georgia; London, United Kingdom; Melbourne, Australia; Tokyo, Japan; and Beijing, China (CDC, 2018). With all of these surveillance points

located all around the world and in different hemispheres, researchers and vaccine developers can help predict what the flu season is going to look like in the United States and what strains of the flu will be prominent. The information is then supplied to the World Health Organization; the organization then uses the information supplied to discuss the suggestions of what should be included in the influenza vaccine.

Usually, there are three or four influenza strains that are included in the seasonal flu vaccine (CDC, 2018). Choosing which strains go into the vaccine is where the surveillance of flu around the world is critical. To make the best suggestions, the WHO meets twice a year to discuss flu prevention. For the northern hemisphere, the meetings take place in February to discuss the upcoming flu season. Throughout this meeting and the information supplied, the WHO then suggests what strains should be included in the seasonal flu vaccine (CDC, 2018). However, the WHO is not the organization that has the final say in what is included in the flu vaccine. In the United States, the Food and Drug Administration (FDA) has the final say about what strains of influenza will be included in the seasonal flu vaccine (CDC, 2018). However, there is always some concern with the creation of the influenza vaccine, such as the prediction of the wrong strain or the different mutations of the strain.

Vaccine efficacy is a major concern for the United States and was one of the major critiques of the 2017-2018 influenza season. The creation of the influenza vaccine is difficult and tedious. In order to produce enough flu vaccines for the upcoming season, the manufacturers must select the flu strains that they want to grow months in advance (NIAID, 2017). There are multiple ways of creating a flu vaccine, the first is through growing the virus in chicken eggs. The second is by growing the flu virus in a cell-based production process (NIAID, 2017). This

second technique is better for people that may have egg allergies and could be potentially a faster production, however the process of growing the virus is still time consuming (NIAID, 2017). With these types of production, there are challenges. The National Institute of Allergy and Infectious Diseases states, "However, sometimes an existing but unexpected flu strain will become prevalent during flu season, making the vaccine a poor match to the circulating strains" (NIAID, 2017). This results then in a less effective vaccine and could potentially result in a more severe flu season.

However, in order to continuously trying to improve the seasonal flu vaccine, the National Institute of Allergies and Infectious Diseases, is working on a new way of producing the influenza vaccine. The recombinant DNA manufacturing process would not require an egg base and allows for the different "wild type" virus that is naturally occuring to be mixed with another virus that allows the virus to grow well in insect cells (NIAID, 2017). With this new technology, the NIAID predicts that it would allow for a rapid response to serious pandemic flu strains. This new vaccine production is an initiative supported by many government health organizations to improve the production of the influenza vaccine and all of the steps that are necessary in that process (NIAID, 2017). The improvement of the influenza vaccine could greatly change the way that seasonal flu is discussed within society and mainly within the media. However, in terms of this project, I am going to be thinking beyond the scientifically proven process of developing a flu vaccine and facts surrounding seasonal influenza. I will be moving towards more theoretical thinking of how and why the media is portraying the important information surrounding the flu. To help with the transition of proven information to theoretical thinking, I will be discussing how everyday reality is socially constructed.

Social Constructions of Reality

As it is important to think about the science regarding seasonal influenza, in terms of this project it is also necessary to think about the ways that the media portrays the virus to the public and what type of story they are telling regarding the virus. The way that people retrieve their information regarding the flu can change their opinions of the flu virus. The different ways that people get their information is through the media. This could be through social media, televisions news sources, newspapers, or magazines, just to name a few. In the case of this project, the focus will be on the online news media.

However, before discussing the importance of the news media, the social construction of reality needs to be defined and discussed. Sharf and Vanderford explain the term well in their book chapter "Social Construction of Illness Narratives". Sharf and Vanderford (2003) state, "Social constructions of reality are mediated through linguistic expression articulated among people and communities, shaped and recorded as history" (p.10). In other words, the authors are saying that the social construction of reality is based off of commonly accepted knowledge and personal understanding. The social construction of reality impacts a lot of the issues that the public deals with on a day to day basis, however, the impact of health issues is one that is incredibly important.

When thinking about the flu, it is necessary to think about how people are getting their health information. In most cases, this is through news television coverage or online news stories. How these news sources report the topics surrounding the seasonal flu can change the way the person interprets their own personal understanding of the topic. This type of action taken by the media is called news framing.

The way that the news outlets are telling stories regarding health and health issues can greatly change a person's perception of the topic at hand. In the book, *News narratives and news framing: Constructing political reality* the author discussed the impacts of news framing and how it occurs. Johnson-Cartee (2004) first state, "What one knows and what one thinks one knows is shaped through the communication process" (p. 1-2). This statements reiterates the fact that people know what they know through their conversations and interactions with other people within society. Johnson-Cartee (2004) then goes on to say, "Pictures or images in our head are created through an individual's contact with media rather than a direct experience" (p. 4). The author makes this statement to better explain that everything we see in the media is constructing our knowledge. This is true for the flu as well; even if the person who is viewing the story on the flu has never been infected with the virus, the person still has a pretty strong idea of what the symptoms of the flu look like simply because they have seen the examples in the news media. Johnson-Cartee states that there is a heavy reliance on news media for information, creating the public to depend on the media (Johnson-Cartee, 2004). However, what is most important when thinking about the dependency is how this then creates knowledge for people to think differently about certain topics.

The social construction of reality and the framing of news media is very important when thinking about this project. This is simply because I will be analyzing how the media is portraying the information regarding the 2017-18 flu season. It is impossible for me to know how the media has changed a person's views or how they view the flu. Rather, I am able to assess what ways the media is wanting to tell the story of the flu season and how they position the audience to feel.

Interpreting, understanding, and following the flu can be difficult, yet it is necessary to understand what is happening within the flu season. The processes of vaccine production and strain selection for the vaccine are also very important to know when talking about the best strategies of protecting one's self from the flu virus. By knowing the strains that are being suggested that will be most prominent, such as the strains that we see most active in the southern hemisphere during their seasonal influenza outbreak, can help people take action of protecting themselves. This means getting the seasonal flu influenza, but also realizing that there may be strains that are weakened in the vaccine. Or perhaps knowing what signs and symptoms of flu the person should look for in themselves and their loved ones, and when the appropriate time is take them to see a medical professional. Knowing the history of the flu and recognizing these terms in the media is important for people to know how severe the flu season could potentially get. However, the understanding of media framing and the social construction of reality is important to be able to get a full understanding of the 2017-18 flu season.

The social construction of reality allows people to understand how much knowledge and understanding we, as the lay public, gets through different parts of society. By understanding how crucial the language, images, and people involved in these news stories are allows for the public to get a better understanding of how the flu is framed and why. Realizing that with the social construction of reality, and that the public's thoughts are based off of the society around them, the media can share stories in a way that they wish to grab people's understanding. To better understand the theoretical approach to this project, I am going to be look at the work of Johanna Hartelius; specifically her book *The Rhetoric of Expertise.*

Theory

There are many people within a society that can persuade a person. Whether that be a doctor telling you that you need to be healthier, a mechanic that tells you confidently that they know what the issue is with your car, or a newscaster that can tell you everything you need to know that is going on within your society. These people that are working to persuade someone and use their learned skills are considered to be rhetorical experts. Hartelius discusses what it takes to be a rhetorical expert as well as the different ways that someone gains rhetorical expertise in her book *The Rhetoric of Expertise*.

Within Hartelius' book, she looks at expertise in four different ways: through the lenses of politics, history, medicine, and information. She uses the rhetoric of expertise to explain a different event in each section. For politics she uses the example of immigration, for history she uses the example of 9/11, for medicine she uses the example of depression, and for informational expertise she uses the examples of Wikipedia and Encyclopedia Britannica. However, Hartelius does not just describe expertise with her own interpretation, she uses these examples to describe the rhetoric of expertise. Hartelius utilizes the makings of an expert to further explain the impact of rhetorical expertise.

Expertise

Hartelius uses the definition of expertise and how the expert differs from a lay person within society to begin the conversation regarding the rhetorical expert. Hartelius (2008) states, "All definitions of expertise are the function of particular motives and have different implications. Anyone who offers a definition to serve his/her interests" (p. 4). This could mean that a person that gains training in a type of trade, such as a mechanic, could be defined as an

expert just as similarly as a person who is getting a degree from a four year university could also be an expert in their field of study. Experts differ from the lay public by offering different knowledge about topics; resulting in the public respecting the opinions of these experts in their day to day life.

When discussing cognitive expertise, Grabner et al., in the article, "Superior Performance and Neural Efficiency: The Impact of Intelligence and Expertise" describe an expert as someone who can perform a superior task within their domain better than a non-expert or a layperson. The article then showed a study that included three levels of chess players, a master, intermediate, and beginner and how well they could recall by memory a board that they had just seen. As expected, the three different levels performed very differently due to their level of expertise (Grabner et al., 2006). This article, which Hartelius included her argument, led her to the fact that cognitive science creates a more autonomous expertise rather than an attributed. This is because experts in the cognitive field simply do not need recognition for their knowledge, it is simply a mental state (Hartelius, 2008).

Cognitive expertise can very much differ from political expertise. To emphasize this, Hartelius introduces the work of Robert Huckfeldt in his article, "The Social Construction of Political Expertise". Within this article written by Huckfeldt, he discusses how one citizen gains more political expertise than the other. Huckfeldt states that political expertise comes when one citizen seeks information from another citizen that is well informed with what is going on within politics. The citizen that knows more and is sharing the information is considered the expert (Huckfeldt, 2001). Hartelius puts this example into her work for the reader to better understand what attributed expertise looks like. In this case of the two citizens discussing politics, the citizen

that has more knowledge has attributed knowledge because they are being persuasive and performing the role of the expert. When referring to the other scholars that are discussing expertise, Hartelius discusses how expertise is rhetorical, which she then bases her analyses off of.

Rhetoric of Expertise

Hartelius introduces the idea of how expertise can be constructed and viewed rhetorically. She states, "It is rhetorical because it depends on the relationships between the speaker, audience, and context" and then goes on to say "Rather, a person uses both her 'real' knowledge and expertise in a specific field and her rhetorical prowess to win over an audience" (Hartelius, 2008, p.18). This means that with the rhetorical approach to expertise, the expert not only has to have the knowledge of the topic at hand, but they also have to be persuasive, engaging, and able to perform and convince different types of audiences.

Hartelius makes it very clear that rhetoric is epistemic and it relates to knowledge. Meaning, that the rhetoric of expertise is valued by knowledge and later uses knowledge to persuade the reader. She uses the work from Aristotle and Burke to tie together the persuasion of rhetoric and expertise as well as all of the language and symbols that come with it. These two scholars help her develop the ideas and the foundations for her work throughout the book and bases her analysis off of the early definitions that are provided and discussed. These scholars, along with many others, tie together all of the arguments and claims to look at how expertise can be constructed rhetorically.

The work that Hartelius has done to explain how expertise is rhetorical greatly relates to how I am planning on using her work to analyze the media stories of the 2017-18 influenza

outbreak. By looking at the rhetoric of expertise, I will see who is getting the chance to influence an audience within the media sources. Hartelius discusses how the rhetoric of expertise uses persuasion both in artistic and inartistic ways (Hartelius, 2008). By being both artistic and inartistic, expertise can be shown through the use of trained and learned skills, such as the ones that a doctor would receive. The artistic ways that are mentioned could be those individuals that gain expert status through non-traditional ways. Such as the people that gained their expert status through witnessing an event. Both the artistic and the inartistic ways of gaining expertise are shown within the media sources. This use of rhetorical persuasion is one thing that I will be analyzing within the news media for the 2017-18 influenza outbreak coverage. With this, I will be evaluating the ways that the media is telling the stories from the 2017-18 outbreak and how they are framing the views of the public, while keeping in mind the points of rhetorical expertise. Some of these themes include the stories of children, the death of a seemingly healthy adult, and the ineffectiveness of the influenza vaccine throughout the flu season. Through this, I will be able to see what types of messages were being portrayed to the media and what image it creates about the flu.

Analysis

The media frames the 2017-18 influenza season in multiple ways. I argue that there is a strong emphasis to frame the blame, responsibility, and competence of the individuals that are involved in the seasonal flu. The media positions the reader to feel a sense of superiority over the individuals who were greatly affected by the flu. By the way that the media frames the stories regarding the flu season, the news outlets have the power to influence the public's views and opinions on their personal health, specifically surround the seasonal flu. As as reminder, by framing here I mean how a situation is being described and shaping the audience's opinion (Ott and Aoki, 2002). I am evaluating 60 news stories revolving around the 2017-18 influenza season in the United States. These news stories came from mainly major news media outlets such as *NBC New, CNN, The New York Times, The Washington Post,* and many others. While evaluating these sources, there were many major themes that came to the surface. The three major themes that captured the flu season as a whole were: the death of a healthy person, the death of children, and the efficacy and future of the seasonal flu vaccine.

The Death of a Healthy Person

One of the key components of the news media coverage surrounding the 2017-18 influenza season was the stories from the families who lost a perfectly healthy person due to influenza. These types of stories are eye catching and frame the information in a way that showcases that the flu virus can infect anyone, especially a healthy person. One of these stories was about a mother that was an avid runner. The article titled, "Flu kills San Jose mom, who liked to run marathons" and published in *The San Francisco Gate* discusses how the 40 year old mother died just two days after falling ill from the flu. The headline contrasts the idea of running

a marathon as a sign of health with the woman's surprising death. In addition, by identifying the woman as a "mom" her identity is defined in relation to her family which potentially makes her death even more costly or impactful. She is not just a woman, she is someone's mom. For this article, the language and the story that is being told puts the emphasis on the reader that it is their responsibility to protect themselves and their families the best they can from the virus.

In order to trust the information that they read, the audience needs to see that expertise is present. Hartelius (2008) states, “The fear of death and mystery drives us to seek desperately the comforts of expertise” (p. 17). The comfort of expertise that Hartelius mentions is important, however, is not the information that is being given within the article. Instead, this article included many statistics surrounding flu related illnesses, hospitalizations, and deaths supplied by state health officials. The article states, “Most of the victims have been adults, and most (70 percent) haven’t been vaccinated, officials say” (Moffitt, 2018). Instead of comforting expertise that Hartelius mentions, this statement places the responsibility on those victims of the flu for not getting their vaccine.

While this article showcases the importance of the flu shot and how a person needs to take the flu symptoms seriously, the article also puts the reader in the position of blaming the woman for not taking responsibility for her own life. The article interviews the woman’s brother, discussing information about the woman’s life and what recommendations he would make to the public when it comes to the flu. The article states a quote from Thomas’ brother, “‘I would definitely tell people to get the flu shot,’ he told Mercury News. ‘I know it might not keep you from getting the flu, but it might keep you from dying from it’” (Moffitt, 2018). This quote emphasizes even more the need for a flu shot, framing the vaccine’s importance in the

relationship with death. The idea of taking responsibility for your health and placing blame on someone for their own health occurs again in the story of Kyler Baughman.

The story of Kyler Baughman, a Pennsylvania native who also died from the flu was shared in *People* magazine. In the article, "Healthy 21-Year-Old Bodybuilder Dies Just Days After Flu Diagnosis", the story of Kyler's death was told by his mother, Beverly Baughman. After falling ill with the flu around Christmas time, Kyler thought the flu would just go away, as most people think. Then, a couple of days later, his organs were shutting down to due to septic shock (Hahn, 2018). In this article, both of Kyler's parents made the statement that they did not think that their son got the flu shot, because of the low amount of effectiveness that it had that season, trying to justify why he did not get one (Hahn, 2018). The ideas of justifying the reason for a person's action, or in this case the lack of an action, it frames Kyler for not taking responsibility for his health.

This statement from the parents thinking that their son did not get the flu shot highlights the responsibility of the person. The article frames this information in a way that emphasizes that even though the flu vaccine had a low success rate for the season, that it is still important to get. The article continues on after the statement is made about the low success rate of the flu vaccine to state how another man from California who was a father and who also continued to work after experiencing flu symptoms had been hospitalized for flu complications. This man from California also did not receive his flu shot (Hahn, 2018). The inclusion of the information of this man from California had no relevance to Kyler, other than the fact that he continued to work with symptoms and that he did not receive his flu shot. These statements reinforce the idea that your health is your responsibility. The inclusion of the statements by Kyler's parents in the

article are interesting. Although their son was an adult and they do not have to tell him what he should and should not do, they are relievating their personal guilt with advising the readers on what they should do if the find themselves sick with the flu. Kyler father made a statement, "'Try and know your body. Don't let things go.' Kyler's father, Todd Baughman, told WXPI. 'Whenever you have a fever for multiple days, don't let it go. Get it taken care of'" (Hahn, 2018). Following this statement, the article included a statement made by Beverly Baughman, "'I think he ignored it and thought it'd go away like most people,' she said. 'I think people need to pay more attention to their bodies'" (Hahn, 2018). In a way, by making these statements to the media, and by the way that the media is framing the statements, it is a way for the Baughman's to alleviate their personal guilt for the death of Kyler. By making these statements that people need to listen to their bodies when they are sick, it reads in a way that they did not say all of that to Kyler. By making these statements to the news media outlets could help justify the Baughman's in way that they have done everything to warn people of possible flu complications. When discussing media framing, Ott and Aoki (2002) also state, "How a story is framed in the news affects both how the public assigns responsibility for a traumatic event…" (p.485). Ultimately, the whole article, including Baughman's comments and the stories of other people who also did not get their flu shot, emphasized the taking of responsibility of a person's health and positions the reader to blame the person that died from flu for not fully protecting them self from the virus.

What makes these stories interesting was the fact that these two people were portrayed as healthy adults. They are described as athletes, running marathons and competing in bodybuilding competitions. The characters within the story are also relatable, with the woman being identified

as a mom and the man as a young working adult. While the media tells the story of the events leading up to the passing of the person, catching the public's attention of who was involved and what happened, as soon as there is a mention of the person not receiving the flu shot; positioning the reader to begin to blame the person for not getting their flu shot or not taking responsibility for their health. In both stories, after stating the fact that each person did not get the flu shot, there is a statement made from a family member emphasizing to the reader how important the flu shot is. By including these statements, the reader can finish the article with a sense of relief that the person who died did not fully protect themselves from the flu. They can say that the person was not responsible, and now they left their child, friends, and family members behind. In turn, the framing of responsibility and blame reiterates my argument and positions the reader to feel superior over these individuals for taking full responsibility for their own health. The framing of responsibility is incredibly important when discussing the death of a healthy person within the media in regards to the 2017-18 flu season.

The Death of the Child

Whenever the death a child is involved in the media, there is an instant draw of attention. It just so happened that the number of children that died from the the flu in 2017-18 was one of the main statistics that was within a large amount of media stories, as 28 out of the 60 articles that I analyzed mentioned pediatric deaths due to flu. These stories showed the number of children that died from the flu when discussing how severe the season was, when talking about the number of children that were vaccinated, or to tell a personal story of a child that died and how it changed the family's view on what the flu looked like. The language surrounding the information that regarded the total number of children that died from the flu is interesting. It is

not necessarily the sympathetic type language all of the time that one might guess; rather, it is mainly statistics of how many children are dying and what type of flu complications they are dying from. That is not the case in all stories, but it is the case for the majority of them.

In October of 2018, the CDC gave their report for the final statistics of the prior flu season. In the report, the organization reported on the number of pediatric deaths. The report states that there were 185 pediatric deaths reported to the CDC and 80 percent of those children were not vaccinated. This is an estimate made by the CDC as all deaths may not be reported throughout the season (CDC, 2018). Throughout the season itself, there was a lot of discussion on the growing number of the pediatric flu deaths. This was true in an article published during the peak of the flu season by *Business Insider*. In the article titled, "The deadly flu epidemic sweeping the US is still spreading — here's everything you need to know" the author describes how at this point in the season, the flu was in 48 states and had a total of 84 pediatric deaths so far (Brueck, 2018). A month later on March 2, 2018, *CNN* reported more updated information regarding the flu season. In the article, the author talks to CDC spokesperson, Kristen Nordlund, and she states by this point in the flu season, the flu has definitely peaked, resulting in fewer reports of people seeking medical attention for their symptoms. Also in the article, the spokeswoman notes that there have been a reported 114 pediatric deaths, more than the season prior (Scutti, 2018). Similarly, an article published by *Fortune* reported the number of pediatric deaths as well has over half of the children that had died from the flu did not have pre-existing conditions making them a high risk for flu complications, emphasizing how deadly the flu could potentially be for healthy children (Bloomberg, 2018). Many of these articles post these statistics in a way that is not somber, yet it is scientific. The language that is used by the media just uses

the statistics as information to back up the point of the article. There is no information regarding the symptoms that children experienced or how the families coped with the loss. However, this was only in articles that described the flu season as a whole. There was a different tone in articles that simply just focused on pediatric flu deaths.

In the article published by *NBC News* titled, "Child flu deaths hits record high for 2017-2018" there was an interesting mix of language used within the article. The article presented a lot of statistical information, such as the ones mentioned above, however there was a different tone to the article regarding these statistics. Yes the statistics were there to show how severe the flu season has been in regards to the children and families affected, but there was also a more somber undertone to why it was effecting so many children. The author supplies quotes from CDC officials saying that the number of pediatric deaths can remind the public how severe the flu and flu complications can be (Fox, 2018). Similar to the adult deaths, you do not get a true sense of remorse until the individual stories from families who have lost a child from the flu are shared.

These differences between the adult personal stories and the children's personal stories is the children's stories do not persuade you to do anything besides continuously check in on your child. *The Washington Post* published articles discussing the deaths of two different children. The article titled, "His family though he had a cold. A couple days later, he died from the flu" was one that showcased how the different language is used while the author discusses the a flu related death of 12 year old Florida boy. The language surrounding the story was the description of what happened, but also blame pointed towards the parents. The blame was even more reinforced when the author mentioned that the boy's father did not care to mention about the

event that had occured (Phillips, 2018). There was also a mention later on in the article by the boy's stepfather saying that you never expect it to happen to you or someone you know, but it will (Phillips, 2018). This statement made by the stepfather was not to show the statistics of how severe the flu season was, but to show people that you need to watch over your child to understand their symptoms and that the flu can have severe effects on anyone. Phillips did not focus on what the flu season looked like around the country, there were only two small paragraphs mentioning where the flu was hitting and who it was affecting the most, keeping the emphasis on the story of the boy.

Unlike the stories explaining the deaths or flu occurrences in adults, the blame is not placed on the child for not getting their own flu shot or for not recognizing the symptoms early enough to seek medical attention. Rather, the blame or the sympathy goes towards the families who did not think too much about the flu or the possible effects of the flu. The language surrounding the deaths of children as a whole is ultimately statistical, where the media uses the statistics as an emphasis on how bad the flu was throughout the season. When a reader sees flu deaths, as in the total number of deaths throughout all age ranges, there is not much thought that goes into reading the number. This is mainly because there is an expected number of flu deaths each year. However, seeing just the statistics regarding children could potentially make the public realize that society, especially parents, need to take control of the flu season and protect themselves and their children as much as possible.

The language is important for the stories that discuss the deaths of children, however it is the guilt and the blame on the parents that are most prominent in the stories of children dying from the flu. Yet, when children and parenting are involved, the blame goes a little further. In a

sense, when reading these articles and looking at the way that the media portrays the child's death, makes the person reading the article feel superior. The language within the article positions the parents in a way to emphasize that they should have done more. This results in the relationship of those parents that took care of their sick children and helped them get healthy again to gain a sense of superiority over the parent that lost their child to the effects of the flu virus. This idea of superiority in a sense is related to expertise. Hartelius mentions, "Expertise is the term for superior competence" (Hartelius, 2008). When thinking about superior competence in relation to the number deaths of children during the flu season, the media gives praise to those parents that had sick children who ultimately got healthy; making them an expert parent. This could mean that they are vaccinating them, regulating their symptoms, taking them to the doctor regularly, or even keeping the child home from school some days when the peak season of the flu is extraordinarily bad.

This superiority competence was showcased in *The Washington Post* article, "The 10-year-old was healthy as 'an ox.' Then he caught a deadly case of the flu" which talks about a boy from Connecticut who died within hours of having flu symptoms. The article mentions that even though the boy was sick with flu symptoms, he still wanted to attend his hockey game in Buffalo, New York (Bever, 2018). His mother took him to the game even though she knew he would not be playing. The article states a quote that the mother told *Time*, "He progressively got worse" and continued to say "I did not like the way that he looked" (Bever, 2018). The author went on to describe how his mother took him to a Buffalo hospital, then decided to head home. He progressively got worse throughout the drive and was taken to another hospital in New York where he later died that day (Bever, 2018). The inclusion of all of the information within the

article frames the actions that were taken in a negative way. It places the reader to question why the family went to the hockey game at all when the boy was already showing signs and symptoms of the flu. The superiority competence comes into action when it seems that the family did not think too much of the flu symptoms, as the boy was normally "as healthy and an ox" (Bever, 2018). The continued language that was then used when the decision was made to head back to the Connecticut home also highlights the incompetence of the parent. By stating that they did not stay at the Buffalo hospital but later had to call 911 on the drive home, showcases a poor decision made by the parent, putting the reader in a position to question the choice that they would have made if this were their child. These actions position the reader to begin to feel superior to the mother in the story simply by realizing they would have not even gone on the trip in the first place.

The superiority competence is interesting when it comes to the stories of the deaths of children. When the media allows you to think about the responsibility of another person's health, in this case a child, it position the reader to think in a way of asking themselves a question of "what would you do?". This differs from the discussion of the death of a healthy adult, or adults in general, by placing the blame and responsibility of the severity of the illness on the person that died. Resulting in the lack of taking care of themself and leaving behind their family and friends. There could be some similarities within the narrative of the death of a child, however, the media put the reader in a position of a type of competitive nature. Meaning, that one parent is better than the other or knows their child better. This results in the differing levels of competence that the media asks us to judge. This idea of competence and superiority supports my argument by positioning the audience and giving the reader the opportunity to feel this way by the way the

stories surrounding pediatric deaths are framed. These stories are not there to bring awareness to the flu the virus in children. Rather, these stories are here to emphasize how the lack of competence could be detrimental to the family.

Flu Vaccines

The efficacy of the flu vaccine in reference to the public as a whole and the number of people that received the flu vaccine was arguably the most common topic throughout the media coverage for the 2017-18 flu outbreak. This is true as out of the 60 articles that I analyzed for this project, 35 of them discussed the influenza vaccine. There was a lot of discussion on who received the flu vaccine, why people do not want to get the vaccine, or why the vaccine did not give people the most coverage from the virus as possible. Through all of the common themes in the articles that covered the topic of the flu vaccine, there was not much blame on the researchers or production companies; a lot of the blame leaned towards those individuals who decided not to get the influenza vaccine at all.

Within almost every story regarding the influenza outbreak of the 2017-18 season, depending on the article, there is always mention of if the person got their flu vaccine, when the best time to get a flu vaccine is, or what the flu vaccine does. Looking back at the two cases that were mentioned earlier, the 40 year old mom who died from the flu and the 21 year old bodybuilder, both stories had quotes from their families stating whether or not they thought their loved one had received the flu vaccine or not. The mention of whether or not the person got a seasonal flu vaccine is important because of the guilt and responsibility that is placed on the individual by the news media.

During the flu season, the media made it common knowledge that the best way to protect yourself was by getting the seasonal flu vaccine. The CDC recommends that you get the flu vaccine each and every year, as it is the best way to protect yourself from the seasonal flu (CDC, 2018). Many major news sources provided the same information in their articles. Usually, the recommendation for the flu vaccine was given after a series of long and dense statistics about the 2017-18 influenza season or the seasons prior. In article published by *Fox News*, there was information published about the recommendations for kids and the influenza vaccine. This article titled, "AAP urges flu vaccine for kids 6 months and older" discusses how the American Academy of Pediatrics highly recommends the any child over the age of 6 months should be getting a flu vaccine. The author, Alexandria Hein, pulls the attention of the audience by first quoting a member of the AAP, Dr. Flor Munoz, saying that the virus can be very unpredictable and by being immunized, the child has less of a risk for being hospitalized for the flu (Hein, 2018). The author also stated that about 80 percent of the children who died from the flu in the 2017-18 outbreak were not vaccinated (Hein, 2018). In this article, the emphasis for vaccination goes strictly towards the parents. By having a board make recommendations of what the parent should be doing, the blame for the amount of children getting sick is not on the vaccine itself, but on the parent for not vaccinating their child. In fact, this is the case in a lot of stories regarding the statistics of death regarding the flu. The sense of blame being placed on a person for not vaccinating themselves or their families is a large part of the media coverage surrounding flu vaccines. Yet, the blame of the family member is not the only victim in the case of the media coverage of the vaccine; the vaccine itself also takes a lot of blame for the severity of the 2017-18 influenza outbreak.

Although the flu vaccine was and still is highly recommended, the vaccine itself took a lot of the blame for the severity of the 2017-18 influenza outbreak. With the flu vaccine not being perfect in a way that it covers all strains and mutations of the virus, the efficacy of the vaccine can vary. For example, one year the flu vaccine efficacy could be over 80 percent and in another season, like the 2017-18 flu season, the vaccine was only 25 percent effective in protecting a person from the virus (McNeil, 2018). With the flu vaccine being so ineffective in a person, the media made statements along the lines of asking if the flu shot was worth getting or questioning the process of how the vaccine is created.

In a *New York Times* article titled, "The Flu Outbreak Has Peaked but Still Has Weeks to Go", the author discusses how and why the flu season was so bad this year. In a question and answer type format, the author describes how the flu season has progressed. Some of the questions addressing how the flu season has been made out to be one of the worst in recent years in regards to flu deaths and hospitalizations. A lot of the information of why the flu was so bad pointed to vaccines. The author poses the questions: "Does this year's flu shot work?" and "Is it worth getting the flu shot anyway?" (McNeil, 2018). In these sections of the article, the main discussion surrounded the fact that the vaccine was the most effective in kids under the age of 8, at around 50 percent effectiveness (McNeil, 2018). However, the language around the vaccine then changes when discussing how the effectiveness seems to just go down from there for everyone over the age of 8, teenagers having the least amount of protection from the flu vaccine. The article states that the Influenza A strain that was the most harmful was the H3N2 strain, this is because the H3N2 strain is very hard to match, as the virus is hard to grow in chicken egg cells and causes mutation, making it difficult to protect against (McNeil, 2018). After providing the

statics of how the flu vaccine does not necessarily work, McNeil discussed in the next section how experts still suggest that you get the flu vaccine to prevent possible hospitalization or death (McNeil, 2018). The conversation surrounding the process in which the vaccine is made was also a very important theme when discussing the 2017-18 influenza vaccine in the media.

There are multiple mentions of how the H3N2 virus is difficult to protect against in the seasonal flu vaccine, due to the process in which the vaccine is created. This process and discussion of the vaccine was mentioned in an article published by *NBC News* titled, "Flu season coming early, looking tough" the author discusses how the vaccine does not seem promising for what looks like to be a severe flu season. The author discusses Australia's flu season, which is usually a good indicator for what the flu season will look like in the United States. The discussion then turned towards the H3N2 component of the seasonal flu vaccine. The author discussed the vaccine effectiveness with Dr. Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases, where he said that the seasonal flu vaccine protects against three or four strains of seasonal flu, but the H3N2 strain seemed to provide the least amount of coverage. Dr. Fauci also mentioned that this was the issue in Australia, but there was still some hope that this could change by the time the virus reached the United States (Fox, 2017). However, Fauci gives some insight regarding why the vaccine may not work. He stated,

> 'Given that most of the U.S. influenza-vaccine supply is currently produced in eggs and the composition of the 2017–2018 Northern Hemisphere vaccine is identical to that used in Australia, it is possible that we will experience low vaccine effectiveness against influenza A (H3N2) viruses and a relatively severe influenza season if they predominate,' Fauci wrote. (Fox, 2017)

The author went on to describe why the current process of vaccine development does not work for all seasonal strains of the flu. Fox stated, "...most influenza vaccines are produced in chicken

eggs, and that process makes the virus mutate, thus making the vaccine produced using the virus less effective" (Fox, 2017). With this process already not being very effective, it already makes the vaccine that much weaker, making the public's risk of getting sick even greater. The process of the creation of the seasonal flu vaccine was a hot topic up for discussion, as other media sources are pushing for different technologies to create the vaccines.

The push for a universal flu vaccine or better production technology is a topic that many news articles were discussing during the 2017-18 flu outbreak. *Forbes* published an article titles, "This Year's Flu Is Nasty and Getting Worse. And Now We've Shut Down the CDC" with an attention getting lede of "Uh oh, this is not good" (Salzberg, 2018). The author goes to show why and how severe the outbreak was, by showcasing different statistics and graphs showing the amount of hospital visits and positives tests during the flu season up to the point of the publication of the article. Salzberg leans heavily towards the argument of how the universal flu vaccine is necessary in order to prevent an outbreak like this from happening again. Salzburg states, "We also need a better way to make the flu vaccine" then goes on to say "...we manufacture a mediocre vaccine, rather than investing in new, modern technology that wouldn't need eggs and could produce more effective vaccines at lower cost" (Salzburg, 2018). Salzburg thinks that with the universal flu vaccine, we would only have to take the vaccine once and never have to get it again, allowing people to have full coverage from all strains of the flu throughout their whole life (Salzburg, 2018). This article showcases that there is a need for a vaccine that provides equal coverage from the virus to everyone. Each flu season is different and one can be more detrimental than the other. However, it is an interesting concept to think about how the

technologies surrounding the seasonal flu could be improved and change the way the media begins to frame the vaccines.

There are two main important points when talking about the vaccine's role in the media. The first being that the vaccine took a lot of the blame for the severity of the flu season in 2017-18. Ultimately, the blame is being placed on the private companies that are making the vaccines. This blame is placed on these companies by emphasizing the strain selection process or the overall vaccine development process. In a way this could take the blame off of the anti-vaxxers, creating an argument that they should not get the vaccine because it does not work anyway. However, in stories regarding just the flu vaccine, the media needs to place the blame on someone or something for the severity of the flu season. In this case, there is no one person to place the responsibility on for not vaccinating themselves. So, when discussing the flu vaccine, the blame gets placed on both the companies that are making the seasonal flu vaccine as well as the methods that they use to make it.

These companies and the government approval that these companies receive are supposed to be trusted with supplying enough vaccines as well as the vaccines that will be the most protective against the flu. Meaning, that all of these expert agencies need to be persuasive by showing that their company can create the most effective vaccine in a short time frame. Hartelius (2008) states, "Anyone who wants to be believed has to behave in a persuasive way. Expert knowledge requires expert performance" (p. 22). Relating back to the production companies, the companies need to pitch their ideas for what the flu season is going to look like and persuade different pharmaceutical companies to distribute the vaccine that they made. The performance being the creation of the vaccine and the knowledge being the information

regarding the upcoming flu season to select and match the strains that they feel will be the most active. However, when there is a vaccine that is as ineffective such as the one in the 2017-18 outbreak, the responsibility gets placed on these companies. Resulting in the reconsiderations on how the vaccine is made and who makes it. In other words, the expert opinions of the private production companies are challenged.

The coverage of the universal flu vaccine is interesting when thinking about how it is going to be portrayed to the public. When thinking about the new flu vaccine, on one hand it offers an overwhelming amount of expertise to those researchers and scientists that are trying to develop the vaccine itself. On the other hand, the media makes the audience feel like this is going to be the greatest development to better understand how to better protect people from the flu. When, in reality, the public as well as the researchers do not have a large understanding of how the vaccine would work. It is also interesting to think about how the audience would react to the universal flu vaccine, especially after poor effectiveness in people from vaccines in the past, such as the 2017-18 flu vaccine. There would have to be a strong push from the media, such as how many medical professionals are suggesting a need for a change in the current flu vaccine production methods to ensure the public knows that the vaccine would work. When the media is sharing this information during a severe flu season, it offers a sense of encouragement that there will not be another severe flu season such as the 2017-18 influenza outbreak. The media frames the information of the universal flu vaccine as the "answer to our prayers" and that it is the logical next step that needs to happen within seasonal flu research. These media frames emphasize my overall argument of competence in a way that the article reassures the readers that there are being steps taken to help future flu seasons from being so severe; resulting in the reader

to feel confident in their decision to keep getting their seasonal flu vaccine as it is constantly being more and more developed.

The early discussions of the universal flu vaccines in the news media makes a clear assumption to the public that this is the necessary next step in fighting the seasonal flu. With the statements made by multiple medical professionals and the proof that there is research being performed, the public tends to see the expert opinion and also believe that this is the next step that needs to be happening. The media covering process of creating the vaccine also allows people to see that the universal flu vaccine is what they need to protect themselves from the seasonal flu, resulting again the blame to begin to be placed on those who decide not to vaccinate.

Conclusion

Throughout the course of this project, there has been a great emphasis on the power that the news media has over the public. With news media being one of the main sources where the public gets their information, the media has the opportunity to frame stories in ways that could change their audience's opinion surrounding the topic at hand. The way that the media can frame these stories was significantly emphasized within the 2017-18 influenza outbreak in the United States. While evaluating 60 news articles, I was able to identity the major themes that occured within the articles and analyze the different ways that the news media framed the information that was being shared.

As previously stated, I argue that there is a strong emphasis to frame the blame, responsibility, and competence of the individuals that are involved in the seasonal flu. The media positions the reader to feel a sense of superiority over the individuals who were greatly affected by the flu. Throughout my analysis, I found exactly this. The media showcased personal testaments and stories regarding the families that have been greatly affected by the flu. This could be someone who was hospitalized from the flu or someone even passing away from complications from the flu. These stories that were told were usually people who did not fit the description of someone who was at risk for flu complications.

By using these stories of the healthy person that got sick, the stories of the death of child, and the stories of the seasonal flu vaccine, it provides the reader to gain opinions regarding the flu and how they view it. However, this opinion is gained through the ways that the media positions the reader. By emphasizing certain stories or parts of a story, the reader gets put in the

position to feel a sense that they are potentially more responsible for their health over the person that died from the flu, or perhaps the reader is positioned to feel that they are more of a superior parent over the parent whose child died from flu complications. The large amount of articles, from many media platforms, showcase how active media framing is in the information that is being provided to the audience.

Although I found conclusive evidence of the different themes in the articles that later supported my argument, there were still some limitations. These limitations being that I just looked at mainly major news media sources and did not spend a lot of time looking at the smaller, local news sources. This makes me wonder what other personal stories there were regarding the flu or if there was different information provided. I also do not know if these smaller news sources would give updates regarding the flu geographically, rather than at a national level. Or perhaps these stories would give their reader suggestions on where to go to get their flu shot or different local places that could potentially help them in some way. This would be interesting to analyze as well and could potentially hold different themes within the stories.

This leads me to wonder what other questions I could have asked within this project. If I had the time to continue to research or perhaps look different sources regarding the flu, I would have liked to expand on the main theme of responsibility. It would have been interesting to delve deeper into the ideas of responsibility and blame and continue to ask questions regarding the framing of news media. With drawing more and more conclusions, I am curious as to what other themes, frames, and underlying messages I could find.

Even though with some limitations and continuous questions, I believe that my findings within this project are very interesting. Although I was just looking at the flu, the work of

understanding news narratives is important for all health and non health related stories. The positioning of the audience to feel responsible and superior is a frame that deserves to be thought about and understood. News illness narratives and the media coverage surrounding these narratives are important to understand how the audience can be positioned to feel different ways and gain different opinions of the topic at hand.

References

ABC News. (2018). Experts raise concerns flu could reach epidemic levels. Retrieved from https://www.youtube.com/watch?v=MR4L38kVHA8

Alltucker, K. (2018). After deadly 2017-18 flu season, surgeon general urges americans to get shots *USA Today*. Retrieved from https://www.usatoday.com/story/news/nation/2018/09/27/surgeon-general-jerome-adams-influenza-americans-flu-shot-vaccine/1440838002/

Bean, M. (2018). CDC: 2017-18 flu season had 'record-breaking' hospitalization rates. *The Washington Post.* Retrieved from https://www.beckershospitalreview.com/quality/cdc-2017-18-flu-season-had-record-breaking-hospitalization-rates.html

Bever, L. (2018). The 10-year-old was healthy as 'an ox.' then he caught a deadly case of the flu. *The Washington Post.* Retrieved from https://www.washingtonpost.com/news/to-your-health/wp/2018/01/18/the-10-year-old-was-healthy-as-an-ox-then-he-caught-a-deadly-case-of-the-flu/?utm_term=.104f7059a39f

Bloomberg. (2018). The flu is killing up to 4,000 americans a week. *Fortune.* Retrieved from http://fortune.com/2018/02/10/american-flu-deaths/

Brian L. Ott, & Eric Aoki. (2002). The politics of negotiating public tragedy: Media framing of the matthew shepard murder. *Rhetoric and Public Affairs, 5*(3), 483-505. doi:10.1353/rap.2002.0060

Brueck, H. (2018). The deadly flu epidemic sweeping the US is still spreading — here's everything you need to know. *Business Insider.* Retrieved from https://www.businessinsider.com/everything-you-need-to-know-about-flu-epidemic-2018-1

Cahn, L.The 13 worst places in america for the flu in 2018. *Reader's Digest.* Retrieved from https://www.rd.com/health/conditions/worst-flu-places-in-2018/

Callander, S. (2008). A theory of policy expertise. *Quarterly Journal of Political Science, 3*(2), 123-140.

CDC. (2009). Origin of 2009 H1N1 flu (swine flu): Questions and answers. Retrieved from https://www.cdc.gov/h1n1flu/information_h1n1_virus_qa.htm

CDC. (2017). Types of influenza. Retrieved from https://www.cdc.gov/flu/about/viruses/types.htm

CDC. (2018a). Disease and burden of influenza. Retrieved from https://www.cdc.gov/flu/about/burden/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fflu%2Fabout%2Fdisease%2Fburden.htm

CDC. (2018b). The flu season. Retrieved from https://www.cdc.gov/flu/about/season/flu-season.htm

CDC. (2018c). History of 1918 flu pandemic. Retrieved from https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm

CDC. (2018d). Key facts about influenza (flu). Retrieved from https://www.cdc.gov/flu/keyfacts.htm

CDC. (2018e). Misconceptions about seasonal flu and flu vaccines. Retrieved from https://www.cdc.gov/flu/about/qa/misconceptions.htm

CDC. (2018f). Prevention and control of seasonal influenza with vaccines: Recommendations of the advisory committee on immunization Practices—United states, 2018–19 influenza season. Retrieved from https://www.cdc.gov/mmwr/volumes/67/rr/rr6703a1.htm?s_cid=rr6703a1_w

CDC. (2018g). Selecting viruses for the seasonal flu vaccine. Retrieved from https://www.cdc.gov/flu/about/season/vaccine-selection.htm

CDC. (2018h). Summary of the 2017-2018 influenza season. Retrieved from https://www.cdc.gov/flu/about/season/flu-season-2017-2018.htm

CDC. (2018i). Weekly U.S. influenza surveillance report. Retrieved from https://www.cdc.gov/flu/weekly/index.htm

Charles, S. (2018). Flu season worst in a decade and baby boomers are being hit hard. *NBC News.* Retrieved from

https://www.nbcnews.com/health/cold-and-flu/baby-boomers-now-second-hardest-hit-group-flu-says-cdc-n841421

Cook, H. (2018). American academy of pediatrics recommends flu shot over FluMist. *Becker's Hospital.* Retrieved from https://www.beckershospitalreview.com/quality/american-academy-of-pediatrics-recommends-flu-shot-over-flumist.html

Cunningham, A. (2018). If you thought the most recent flu season was bad, you were right. *Science News.* Retrieved from https://www.sciencenews.org/article/if-you-thought-most-recent-flu-season-was-bad-you-were-right

D News. (2014). Cold vs flu: What's the difference. Retrieved from https://www.youtube.com/watch?v=AaeUX5lFx-s

Dentith, M. R. (2018). Expertise and conspiracy theories. *Social Epistemology, 32*(3), 196-208.

Ducharme, J. (2018). Why is the flu so bad this year? *Time.* Retrieved from http://time.com/5105929/why-is-the-flu-so-bad-2018/

Ericsson, K. A., & Smith, J. (1991). *Toward a general theory of expertise: Prospects and limits* Cambridge University Press.

Fox Business. (2018). U.S flu outbreak deadliest in years: CDC. Retrieved from https://www.youtube.com/watch?v=Br7HuLwGYJE

Fox, M. (2017). Flu season is coming early, looking tough. *NBC News.* Retrieved from https://www.nbcnews.com/health/health-news/flu-season-coming-early-looking-tough-n827886

Fox, M. (2018). Influenza might be spread simply by breathing, study finds. *NBC News.* Retrieved from https://www.nbcnews.com/health/health-news/influenza-might-spread-air-study-finds-n839166

Fox, M. (2018). Child flu deaths hits record high for 2017-2018. *NBC News.* Retrieved from https://www.nbcnews.com/health/health-news/child-flu-deaths-his-record-high-2017-2018-n881381

Gajanan, M. (2018). Here's how widespread the flu is this year. *Time.* Retrieved from http://time.com/5112677/flu-death-count-2018/

Glaser, R. (1985). Thoughts on expertise.

Grabner, R. H., Neubauer, A. C., & Stern, E. (2006). Superior performance and neural efficiency: The impact of intelligence and expertise. *Brain Research Bulletin, 69*(4), 422-439.

Gwyn, R. (2001). *Communicating health and illness*. London: SAGE Publications. Retrieved from http://ebookcentral.proquest.com/lib/allegheny-ebooks/detail.action?docID=254723

Hahn, J. (2018). Healthy 21-year-old bodybuilder dies just days after flu diagnosis. *People.* Retrieved from https://people.com/health/bodybuilder-dies-after-flu-diagnosis/

Hartelius, J. (2008). *The rhetoric of expertise (Doctoral Dissertation).* USA.

Hein, A. (2018). AAP urges flu vaccine for kids 6 months and older. *Fox News.* Retrieved from https://www.foxnews.com/health/aap-urges-flu-vaccine-for-kids-6-months-and-older

Herling, R. W. (2000). Operational definitions of expertise and competence. *Advances in Developing Human Resources, 2*(1), 8-21.

Huckfeldt, R. (2001). The social communication of political expertise. *American Journal of Political Science,* , 425-438.

Inside Edition. (2018). How to escape a flu on a plane. Retrieved from https://www.youtube.com/watch?v=YEpOwqu7khk

Johnson-Cartee, K. S. (2004). *News narratives and news framing: Constructing political reality*. Rowman & Littlefield Publishers.

Johnson, M. (2018). Doctors recommending FluMist nasal spray again, hoping for milder flu season. *5 News Online.* Retrieved from https://5newsonline.com/2018/09/04/doctors-recommending-flumist-nasal-spray-again-hoping-for-milder-flu-season/

Joye, S. (2010). News discourses on distant suffering: A critical discourse analysis of the 2003 SARS outbreak. *Discourse & Society, 21*(5), 586-601.

Kee, C. (2018). This flu season is bad, with doctor visits and deaths on the rise *Buzzfeed News.* Retrieved from https://www.buzzfeednews.com/article/carolinekee/flu-season-deaths-on-the-rise

Kinsella, J. (1989). *Covering the plague: AIDS and the american media* Rutgers University Press.

Laestadius, L. I., Lagasse, L. P., Smith, K. C., & Neff, R. A. (2012). Print news coverage of the 2010 Iowa egg recall: Addressing bad eggs and poor oversight. *Food Policy, 37*(6), 751-759.

Lardieri, A. (2018). CDC: 80,000 people died from flu last season. *US News.* Retrieved from https://www.usnews.com/news/health-care-news/articles/2018-09-27/cdc-80-000-people-died-of-flu-complications-last-season-in-us

Lenzer, & Jeanne. (2018). Do you actually need to get a flu shot or what? *Men's Health.* Retrieved from https://www.menshealth.com/health/a22866490/should-you-get-flu-shot/

Live with Kelly and Ryan. Kelly and ryan get their annual flu shot. Retrieve from https://www.youtube.com/watch?v=vOxCULTo6p4

McNeil, D. (2018a). The flu outbreak has peaked but still has weeks to go. *The New York Times.* Retrieved from https://www.nytimes.com/2018/01/18/health/flu-season-facts.html

McNeil, D. (2018b). This flu season is the worst in nearly a decade. *The New York Times.* Retrieved from https://www.nytimes.com/2018/01/26/health/flu-rates-deaths.html

Meyer, D. (2018). Next flu season you'll be able to get your shot without a needle. *Fortune.* Retrieved from http://fortune.com/2018/02/22/flumist-influenza-vaccine-flu/

Moffitt, M. (2018). Flu kills san jose mom, 40, who liked to run marathons. *San Francisco Gate.* Retrieved from https://www.sfgate.com/healthredesign/article/Flu-kills-San-Jose-mom-40-who-liked-to-run-12499691.php

Molteni, M. (2019). We can still avoid a repeat of last year's deadly flu season. *Wired.* Retrieved from https://www.wired.com/story/we-can-still-avoid-a-repeat-of-last-years-deadly-flu-season/

National Institute of Allergies and Infectious Diseases. (2017). Influenza vaccine production and design. *National Institute of Health.* Retrieved from https://www.niaid.nih.gov/diseases-conditions/influenza-vaccine-production-and-design

Nelkin, D. (1991). AIDS and the news media. *The Milbank Quarterly, 69*(2), 293-307. doi:10.2307/3350206

News Desk. (2018). Flu vaccine update and recommendations. *Outbreak News Today.* Retrieved from http://outbreaknewstoday.com/flu-vaccine-update-recommendations-66995/

Nucci, M. L., Cuite, C. L., & Hallman, W. K. (2009). When good food goes bad: Television network news and the spinach recall of 2006. *Science Communication, 31*(2), 238-265. doi:10.1177/1075547009340337

Ohm, R. (2017). Flu widespread in 36 states, CDC reports. *USA Today.* Retrieved from https://www.usatoday.com/story/news/nation-now/2017/12/29/flu-season-early/990271001/

Oliviero, H. (2018). Why now is a good time to get your flu shot. *Atlanta Journal-Constitution.* Retrieved from https://www.ajc.com/lifestyles/health/why-now-good-time-get-your-flu-shot/e383vXG9uyLf1XebS1NfxJ/

Olumhense, E. (2018). Flu killed more americans last season than car crashes and drug overdoses. But chicagoans can protect themselves. *Chicago Tribune.* Retrieved from https://www.chicagotribune.com/news/local/breaking/ct-met-flu-season-deaths-flu-epidemic-100-years-20181003-story.html

Park, A. (2017). This year's flu virus could be worse than usual — and the vaccine may not help. *Time.* Retrieved from http://time.com/5068553/this-years-flu-virus-could-be-worse-than-usual/

Phillips, K. (2018). His family thought he had a cold. A couple of days later, he died of the flu. *The Washington Post.* Retrieved from https://www.washingtonpost.com/news/to-your-health/wp/2018/01/25/his-family-thought-he-had-a-cold-a-couple-of-days-later-yet-another-child-died-of-the-flu/?utm_term=.559f15f23161

Poole, S. M., & Oliviero, H. (2018). A nightmare flu season finally comes to end. *Atlanta Journal-Constitution*. Retrieved from https://www.ajc.com/lifestyles/health/nightmare-flu-season-finally-comes-end/PoxtB2Yvt3dAPsFzXxwmII/

Pyrek, K. (2018). 100 years after the spanish flu: Lessons learned and challenges for the future. *Infection Control Today.* Retrieved from https://www.infectioncontroltoday.com/public-health/100-years-after-spanish-flu-lessons-learned-and-challenges-future

Roberts, C. (2018). How to protect yourself during the flu season. *Consumer Reports.* Retrieved from https://www.consumerreports.org/flu/protect-yourself-during-bad-flu-season/

Ruth, A. M., Eubanks, E. E., & Telg, R. (2005). Framing of mad cow media coverage. *Journal of Applied Communications, 89*(4) Retrieved from https://doi.org/10.4148/1051-0834.1312

Salzberg, S. (2018). This year's flu is nasty and getting worse. and now we've shut down the CDC. *Forbes.* Retrieved from https://www.forbes.com/sites/stevensalzberg/2018/01/21/this-years-flu-is-nasty-and-getting-worse-and-now-weve-shut-down-the-cdc/#4e26ee231144

Samson, D. (2018). Nasal spray flu vaccine back on CDC approved list. *Tech Times.* Retrieved from https://www.techtimes.com/articles/233747/20180826/nasal-spray-flu-vaccine-back-on-cdc-approved-list.htm

Schweigert, K. (2018). Pennsylvania sets record with more than 121,300 reported cases of the flu in 2017-18 flu season. *Fox 43.* Retrieved from https://fox43.com/2018/05/30/pennsylvania-sets-record-with-more-than-121300-reported-cases-of-the-flu-in-2017-18-flu-season/

Scutti, S. (2018). The end is near: Flu has 'definitely peaked' for the 2017-18 season. *CNN.* Retrieved from https://www.cnn.com/2018/03/02/health/flu-weekly-numbers-march-2-cdc/index.html

Scutti, S. (2018b). Flu season deaths top 80,000 last year, CDC says. *CNN.* Retrieved from https://www.cnn.com/2018/09/26/health/flu-deaths-2017--2018-cdc-bn/index.html

Sharf, B. F., & Vanderford, M. L. (2003). Illness narratives and the social construction health. In T. L. Thompson, A. M. Dorsey, K. Miller & R. Parrott (Eds.), Handbook of Health Communication (pp. 9- 34). Mahwah, NJ: Erlbaum

Smith, K. C., Rimal, R. N., Sandberg, H., Storey, J. D., Lagasse, L., Maulsby, C., Links, J. M. (2012). Understanding newsworthiness of an emerging pandemic: international newspaper coverage of the H1N1 outbreak. *Influenza and other respiratory viruses*, *7*(5), 847–853. doi:10.1111/irv.1207

Sun, L. H. (2018). This flu season keeps getting deadlier, and a shutdown will make things worse. *The Washington Post.* Retrieved from https://www.washingtonpost.com/news/to-your-health/wp/2018/01/19/this-deadly-flu-season-hasnt-peaked-yet-and-a-government-shutdown-will-make-things-worse/?utm_term=.13d1ccf7475b

The Economist. (2018). Why the flu crisis is so severe. *The Economist.* Retrieved from https://www.economist.com/the-economist-explains/2018/02/07/why-the-current-flu-crisis-is-so-severe

Thorbecke, C. (2017). Flu season off to an early start, CDC report warns. *ABC News.* Retrieved from https://abcnews.go.com/Health/flu-season-off-early-start-cdc-report-warns/story?id=51656828

Today. (2018). How to spot flu symptoms – and when it's time to head to the hospital. Retrieved from https://www.youtube.com/watch?v=3PduWV3Nqlo

Tosh, P. K., Jacobson, R. M., & Poland, G. A. (2010). Influenza vaccines: from surveillance through production to protection. *Mayo Clinic proceedings*, *85*(3), 257-73.

Trimble, M. (2018). CDC: Flu epidemic apparently peaking, likely to continue. *US News.* Retrieved from https://www.usnews.com/news/national-news/articles/2018-01-16/cdc-flu-epidemic-apparently-peaking-likely-to-continue

University of Texas Medical Branch at Galveston. (2017). How well will the flu vaccine work this winter? *Science Daily.* Retrieved from https://www.sciencedaily.com/releases/2017/12/171213160945.htm

Vioguard. (2018). The 2018 flu season is the worst since the 2009 swine flu pandemic. *Vioguard.* Retrieved from https://www.vioguard.com/the-2018-flu-season-is-the-worst-since-the-2009-swine-flu-pandemic/

Ward, A. (2018). Flu season is just around the corner and it's time to get vaccinated. *Houston Chronicle.* Retrieved from https://www.houstonchronicle.com/news/houston-texas/houston/article/Flu-season-is-just-around-the-corner-and-it-s-13246125.php

WCPO Staff. (2018). 4-year-old and 1-year-old become Ohio's 1st pediatric flu deaths of 2017-18 season. *WCPO.* Retrieved from https://www.wcpo.com/news/state/state-ohio/4-year-old-montgomery-county-boy-becomes-ohios-1st-pediatric-flu-death-of-2017-18-season

Weber, L. (2018). This flu season is the deadliest on record for children. *The Huffington Post.* Retrieved from https://www.huffpost.com/entry/flu-season-deadliest-for-children-cdc_n_5b071a67e4b0784cd2b2e318

Wen, F., Bedford, T., & Cobey, S. (2016). Explaining the geographical origins of seasonal influenza A (H3N2). *Proceedings. Biological sciences*, *283*(1838), 20161312.

Williamson, J. M. L., Skinner, C. I., & Hocken, D. B. (2011). Death and illness as depicted in the media. *International journal of clinical practice*, *65*(5), 547-551.

Woods, B. (2018). Get ready, some medical experts are predicting the worst flu season in history. *CNBC.* Retrieved from https://www.cnbc.com/2018/01/09/medical-experts-predict-worst-flu-season-in-history.html