

Influenza Pandemic

Introduction

An influenza pandemic is an event where the virus develops a new strain, typically from species other than humans, and is transmitted to human populations. There are common animals that are identified to be the source of the development of these new strains such as swine, chicken and ducks. What is known to be life threatening on a massive scale regarding the spread of new strains of influenza is that while humans have the capability to develop immunity from most diseases including influenza, the introduction of a new strain implies that a new type of immunity is needed. Without such immunity, an entire population is virtually helpless against a new influenza virus, resulting to the inability of their physiological systems to withstand the symptoms of the virus, ultimately ending in deaths that count in the thousands.

There have been multiple incidences of influenza pandemics over the past century, each of which has originated from different parts of the world. These so-called 'outbreaks' are considered as a threat due to the manner by which they affect the human populations which they are observed to spread on to. To be particular, the Spanish flu which has occurred in the late 1910s recorded an approximate of 50 million to 100 million human deaths around the world. That massive scale of a statistic inly implies that a flu virus has the real potential of wiping out an entire country's human population, while posing the high risk of spreading to other territories, wreaking the same havoc.

Since the development of information technology as paved for by the internet, people are more than ever prepared in responding against potential occurrences of flu pandemics since almost everyone is able to share information using the web as a tool. In fact, Twitter and Facebook posts are now being looked at as a vital source of information for pre-empting flu outbreaks (Lamos, 2010). On the other hand, information agencies, primarily the media, may exploit these technologies to cause unnecessary hyping of unfounded opinions on whether or not there is an actual flu pandemic which may result to the misinformation of the public. This may cause unnecessary panic and social unrest over an issue that does not practically exist. The power of media today brings forth the question of whether pandemics and influenza, especially the ones that occur today can be dismissed as 'media hype' or a truly serious threat. The following text will be dedicated to studying the statistics of the major pandemics over the past century in order to determine the gravity of influenza pandemics across modern human history.

Methods

Approach

The approach of this research's methodology is by analyzing data from the 5 major influenza pandemics in modern history which are the following: 1) the Asiatic Flu, 2) the Spanish Flue, 3) the Asian Flu, 4) the Hong Kong Flue and the most recent 5) 2009 Flue Pandemic. The analysis of the data will include the discussion of the duration of each pandemic as it contrasts to one another in consideration of the total number of deaths as well as the percentage of fatality which the respective pandemics have caused.

Criteria for Selecting Articles

Scholarly literature which shows the statistics of the 5 pandemics where chosen based on whether they give three important details: 1) duration of the pandemic, 2) estimated fatalities and 3) case fatality rates.

Selection Results

As a result of implementing these criteria, we have found 5 credible sources which came from different peer-reviewed and accredited publications.

Review of Literature

Asiatic Flu

The Asiatic flu or otherwise known as the 1889 – 1890 flu pandemic can be considered as the first flu pandemic which occurred in the history of modern civilization where different countries in the world are now relatively more integrated and connected by the emergence of different technologies such as those in transportation as well as telephone communication according to Hilleman's study. The Asiatic flu affected several countries in Europe, which was then connected through railways and other means of transatlantic travel such as those utilizing boats and ships. This pandemic is also referred to as the Russian Flu, though this is not to confuse it with the benign Russian flu of 1977-1978. The pandemic is believed to have been first observed in Saint Petersburg, a city in Russia, and within about 4 months have successfully spread throughout most of the countries within the northern hemisphere. The Asiatic flu has a death estimate of about 1 million, which constitutes a case fatality rate of 0.15 per cent (Hilleman, 2002).

Spanish Flu

Mills' work (2004) suggest that the Spanish flu may be considered as the deadliest flu pandemic in modern history, infecting about half a billion victims across the whole world, unlike the Asiatic flu which has concentrated impact on the northern hemisphere of the globe. The pandemic is so intense that it even reached then- remote locations such as the Pacific islands and the Arctic. Occurring in 1918 to 1920, the Spanish flu is known to have indiscriminately killed millions of people from different demographics. Children, elderly and other sickly people are among the most vulnerable to the disease, but one of the most striking features of the Spanish flu is that it is even responsible for the deaths of adults who, before the outbreak, were considered to be healthy even against normal influenza strains. While it has been hard to make an accurate assessment of the global mortality rate of the Spanish flu, estimates based on research showed that about 10 to 20 per cent of the people who are infected by the influenza strain have died. During the spread of the virus, about one- third of the entire world population was affected, which means that the case fatality ratio is at about 6 per cent. In other words, 6 per cent of the world population has died as a result of this pandemic strain, which amounts to about 50 to 100 million people. This incredibly high fatality count makes the Spanish flu not only one of the deadliest recorded influenza outbreaks, but also qualifies it as one of the natural disasters in civilization with the highest death count (Mills, 2004).

Asian Flu

An influenza virus strain spread in 1956 and lasted for 2 years in China and spread across other Asian territories such as Singapore and Hong Kong and even in the United States. Being first recorded to have manifested in Guizhou, China, the Asian flu is an H2N2 sub type of influenza virus, which evolved to H3N2 causing further deaths in 1968 and 1969 as indicated by a study conducted under the commission of the WHO (2005). With the world wide death toll amounting to an estimate of 1 to 1.5 million people, the case fatality rate for the Asian flu is that it cause the death of a margin less than 0.13 per cent of the world's population.

Hong Kong Flu

A decade after the Asian Flu, the Hong Kong Flu spread as a result of an antigenic shift, infecting about 500, 000 residents in the city. The flu lasted for a year, and killed about 750, 000 to 1 million people which then constitutes 0.1 per cent of the world population (WHO, 2005).

2009 Flu Pandemic

Donaldson (2009) was one of the scholars who focused on the mortalities associated with this pandemic, which according to can be considered as the most recent one of its relative magnitude. We have included this flu pandemic in our discussion since it is the one which has occurred during a time where media technologies are at its most advanced stage, and is also interestingly the pandemic which has the least amount of deaths compared to the 4 flu pandemics above. Even though the flu pandemic lasted for approximately one year just like the other flu pandemics in the past century, the death toll of this one is only estimated at 18, 000 to a maximum estimate of 284, 500. While this is still a considerably high fatality count, it only constitutes about 0.03 per cent of world population which is again lower than the case fatality rate of the other past flu pandemics.

The following is a table summary of the statistics we have discussed:

Pandemic	Duration	Estimated Fatalities	Case Fatality Rate
Asiatic Flu	1 year	1, 000, 000	0. 15 per cent
Spanish Flu	2 years	50 to 100 million	6 per cent
Asian Flu	1 year	1 to 1.5 million	0. 13 per cent
Hong Kong Flu	1 year	750, 000 to 1 million	0. 1 per cent
2009 Flue Pandemic	1 year	18, 000 to 284, 500	0. 03 per cent

Implications or Unresolved Questions

The implication of the data we have presented and reviewed above is that if we are going to base our answer on the statistical figures alone, flu pandemics can be concluded to be a primary cause of massive deaths. Once a pandemic is confirmed, what is almost expected is that there will be fatalities of global magnitude until a vaccination is developed. With this in mind, we can safely assume that until these deaths are prevented in the future through new approaches and technology, flu pandemics will remain to be one of the most deadly natural causes of deaths in human history. On the question of whether this must be treated as a serious threat or a mere 'media hype', perhaps the answer will have to depend upon how we define 'serious', which can be subjective.

Nevertheless, if the inability to predict and thus counteract influenza outbreaks results in the undeniably 'harsh' statistics we have presented, that is, the estimated fatalities which amount to millions, then Flu pandemics must be treated as a real serious threat, and the media hype which may characterize people's reaction to certain instances of Influenza outbreaks can be considered as an indication of the fear, caution and vigilance that people exert in order to predict and prevent the spread of such viruses.

References

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