



WORLD HEALTH ORGANIZATION

Avian Influenza

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Introduction and Summary of the Problem

Avian influenza is flu infection commonly found in birds. In the past in the past decade, a strain of avian influenza, H5N1, has become a major problem in poultry populations in Asia, Africa and Europe. It has infected humans that have come into contact with these birds and caused serious disease, because humans have no natural immunity against the virus. If the virus mutates and becomes capable of spreading easily among humans, it can start a deadly global pandemic.

Governments around the world have the difficult task of deciding how to prepare for the pandemic. What makes planning for a possible avian influenza pandemic so difficult is the uncertainty of the situation. It is impossible to know when the virus will mutate and become a deadly pandemic strain. It is impossible to know where this strain will first emerge, as the H5N1 strain has spread throughout many parts of the world. It is impossible to know how the pandemic will spread if it occurs because it depends of when it is detected and what actions government and health officials take when it occurs. It is impossible to know what treatments will be most effective because the virus continues to change and the symptoms of avian influenza will change along with the virus. Health officials must study the facts and the information to come up with multiple strategies and plans that can help reduce the impact of the pandemic if it occurs.

Current infection with H5N1 produces the following flu symptoms:

- Cough
- Diarrhea
- Difficulty breathing
- Fever greater than 100.4°F (38°C)
- Headache
- Malaise
- Muscle aches
- Runny nose
- Sore throat

There are a number of vaccines developed to treat avian influenza, but they vary widely in availability among different countries. Another issue that must be discussed is how resources should be allocated among developed countries and developing countries to fight the pandemic.

Recent Developments

H1N1 Developments

The most important development in the study of the avian influenza threat is the current H1N1 pandemic, caused by a different type of influenza virus. The 2009 flu pandemic, the first since 1968, was feared to become a major health problem for countries throughout the world during the regular flu season of the Northern Hemisphere during the winter, but it has turned out to be a very mild problem. Confirmed deaths from H1N1 number 14,000, a significant number, but much lower than what WHO officials and scientists feared.

The H1N1 pandemic illustrates many of the issues to be addressed by the WHO. A major question is whether the WHO acted appropriately during the H1N1 crisis. Many governments around the world are now accusing the WHO of exaggerating the severity of the H1N1 pandemic and causing unnecessary alarm and expense. For example, many countries throughout the world spent billions of dollars on vaccines that were not needed. France alone spent more than \$1.25 billion to purchase enough vaccines to inoculate its entire population. There are now over 50 million surplus doses. The US has distributed 160 million doses of the vaccine, but still has over 90 million extra doses. Other countries, mainly in Europe also have millions of unnecessary doses of the vaccine. Dr. Wolfgang Wodarg, former member of the German parliament says, "WHO advised us falsely. They raised a false alarm." He organized a public parliamentary hearing for the human-rights group Council of Europe, called "The Handling of the H1N1 Pandemic: More Transparency Needed?" to debate whether the WHO and governments overreacted to the H1N1 pandemic.

The WHO and other health agencies, who cannot foretell how a pandemic will unfold, face the problem of being criticized for either doing too much or doing too little. Keiji Fukuda, the WHO's special adviser on pandemic influenza, states that, "WHO consistently made it clear that it could not predict the future course of the pandemic but consistently provided sober, balanced and scientifically supported information and guidance." The WHO definitions for a pandemic might be too broad. The current definitions use transmissibility of the virus and its spread throughout the world to determine the pandemic level. The previous definition included that the pandemic must have a high morbidity rate and a high mortality rate. Some experts believe that the severity of the virus should be reinserted into the definition and considered when determining the threat level of a pandemic. It is worth noting, however, in early 2009, that many experts believed that the H1N1 virus would cause serious disease in most people and possibly have a high mortality rate.

Health Resources

Another issue highlighted by the H1N1 pandemic is the uneven distribution of health resources in the world. It is Europe and the US that now have the problem of having large surpluses of vaccines for H1N1 because they are the ones who bought and stockpiled the vast majority of H1N1 vaccines. They were previously criticized by developing countries for hoarding the vaccines. Access to vaccines and other preparedness tools are still mainly limited to advanced nations who produce many of these supplies, and can pay for them.

Avian influenza is a serious problem in many parts of the world even in its present form. There were 72 cases of humans contracting H5N1 in 2009, up from 44 in 2008, a sign that the H5N1 strain is persisting despite measures taken by the health community. Most of these cases were in Egypt and Indonesia where there are less health resources.

Questions a Resolution Should Address

The World Health Organization should address how countries should prepare for a possible avian influenza pandemic. How can countries limit the effects of a deadly pandemic? What are the possible strategies and backup plans? The World Health Organization should review its current pandemic definitions to see if they are adequate in this present age and develop a more transparent approach to pandemics. What measures are appropriate given the inherent uncertainty of disease outbreaks?

Conclusion

The avian influenza threat remains very real. The current H1N1 pandemic is fortunately mild, as the events of the past year have underlined how vulnerable countries around the world would be if a deadly flu pandemic were to occur today. No country, rich or poor, is adequately prepared for a pandemic. Developing countries severely lack the public health systems and medical services systems needed in preparing for and handling a pandemic. While it is impossible to entirely prevent pandemics, steps can be taken to lessen their likelihood and their devastating impacts.

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