

Bird flu *A virus of our own hatching*

Andrew Pekosz

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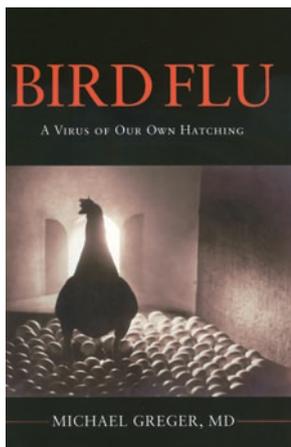
Book Review

Are you tired of hearing about the avian influenza A virus (H5N1) and its potential threat to humankind? Are you wondering what is happening with the H5N1 virus threat? These seemingly contradictory questions are being asked frequently as time passes between the first reports of H5N1 infection of humans and its predicted emergence as a pandemic influenza virus. As the H5N1 influenza virus threat continues to simmer but not boil over, it is becoming difficult to keep interest in and focus on the issue of public health preparedness for a global infectious disease outbreak. At this critical time in the development of pandemic influenza preparedness, Michael Greger's book *Bird flu: a virus of our own hatching* presents not only a comprehensive and thorough summary of the continuing threat of H5N1 influenza but a critical examination of the initial political and public health efforts that have been developed in response to the spread of human cases of H5N1 infection across Asia, Europe, and Africa. The real strength of *Bird flu* lies in its comprehensive summary of the H5N1 outbreak. The book is divided into five sections: an introduction to the biology and history of influenza; a discussion of the social and economic factors that are responsible for the increased threat of animal viruses to the human population; a summary of the [...]

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Bird flu

A virus of our own hatching

Michael Greger

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465 pp. \$30.00. ISBN: 978-1590560983 (hardcover).

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Are you tired of hearing about the avian influenza A virus (H5N1) and its potential threat to humankind? Are you wondering what is happening with the H5N1 virus threat? These seemingly contradictory questions are being asked frequently as time passes between the first reports of H5N1 infection of humans and its predicted emergence as a pandemic influenza virus. As the H5N1 influenza virus threat continues to simmer but not boil over, it is becoming difficult to keep interest in and focus on the issue of public health preparedness for a global infectious disease outbreak. At this critical time in the development of pandemic influenza preparedness, Michael Greger's book *Bird flu: a virus of our own hatching* presents not only a comprehensive and thorough summary of the continuing threat of H5N1 influenza but a critical examination of the initial political and public health efforts that have been developed in response to the spread of human cases of H5N1 infection across Asia, Europe, and Africa.

The real strength of *Bird flu* lies in its comprehensive summary of the H5N1 outbreak. The book is divided into five sections: an introduction to the biology and history of influenza; a discussion of the social and economic factors that are responsible for the increased threat of animal viruses to the human population; a summary of the pandemic preparedness measures that are being put into place in response to the emergence of H5N1; a section on measures the individual can take to prepare for an influenza pandemic; and finally, comments on the prevention of future pandemics. It is the breadth of topics covered that makes this book interesting to a broad range of readers. Perhaps

the most impressive aspect of the book is its myriad of carefully documented references and quotes from key scientific, public health, and government officials, which indicates that Greger has gone to the primary sources to gain his information.

While these topics are covered in great depth, Greger does have a penchant for turning to the colloquial when describing some of the scientific and public health principles important to understanding the evolving threat of pandemic influenza. Perhaps it is this particular style that will make the book very readable and attractive to nonscientists, but statements such as "some like it hot but not influenza" when referring to the effects of elevated temperature on influenza virus replication or how the body's cells sometimes "take one for the team and jump on a grenade" when describing the effects of innate immune factors such as interferon on the body's own cells began to grate a bit on this particular reader.

The largest amount of text is dedicated to a discussion of the environmental, economic, and social factors that contributed to the emergence of H5N1 as a threat to humans. Greger gives us a comprehensive overview of influenza virus ecology and the factors that led to increased contact of humans with birds and the viruses that they harbor. While maintaining focus on H5N1 virus, Greger comments extensively on other examples of animal pathogens that became significant human pathogens. This is a key point in the book, as the environment that led to the emergence of the H5N1 virus can also foster the development of other animal pathogens into human pathogens.

Greger is not afraid to discuss controversial topics such as the personal stock-

piling of influenza antivirals and the role of socioeconomic class in gaining access to the antivirals that are and will be in critical supply when an influenza pandemic occurs. He even includes recipes for homemade hand sanitizer and an interesting strategy for "re-administering" Tamiflu, which may be a bit hard for some to swallow (pun intended!) but may be one way to stretch our effective supply of this key antiviral. However, he also includes in-depth discussions on roles for hygiene, quarantine, isolation, and the economic effects of disrupting just-in-time inventory practices and how they may impact our ability to deal with an influenza pandemic. It is the careful, balanced, and comprehensive discussion of these topics that provides the reader with all the relevant facts and makes the book informative but not alarmist in tone.

Will avian H5N1 be the cause of the next influenza pandemic or will some other influenza virus strain catch us unawares? Will the next influenza pandemic resemble the 1918, 1957, or 1968 pandemics? Will the next global pandemic result from a new virus unrelated to influenza? Will there even be another pandemic? There are many strong feelings and opinions with respect to these questions, but the reality is, of course, that none of us can predict the future. This should not, however, prevent us from preparing for a global infectious disease outbreak, and Greger's book certainly provides a comprehensive summary of the many factors that are critical for tackling this kind of a global public health problem and presents them in a way that will be interesting and informative to both scientists and lay persons, irrespective of their familiarity with H5N1.