

Roos R., Scale of flu pandemic not predictable WHO says CICRAP News 9Dec2004

Robert Roos ■ News Editor

Dec 9, 2004 (CIDRAP News) – The World Health Organization weighed in yesterday on the debate about the potential magnitude of the next influenza pandemic by saying it's impossible to confidently predict how many lives a pandemic might claim.

"While it is impossible to accurately forecast the magnitude of the next pandemic, we do know that much of the world is unprepared for a pandemic of any size," the WHO said in a prepared statement. At the same time, the agency said a pandemic virus could "affect between 20-50% of the total population."

The WHO and flu experts around the world are worried that the widespread H5N1 avian influenza in Asia could spark a human flu pandemic, conceivably on the scale of the devastating Spanish flu pandemic of 1918-1920, which killed an estimated 20 million to 50 million people.

"Experts' answers to this fundamental question" of the likely scale of a pandemic "have ranged from 2 million to over 50 million," the WHO said. "All these answers are scientifically grounded. The reasons for the range are many fold."

Until recently the WHO had been estimating the possible global death toll in a potential pandemic at 2 million to 7 million. But in a Nov 29 speech, Dr. Shigeru Omi, the WHO's Western Pacific regional director, said that a pandemic could kill 20 million to 50 million people, or even up to 100 million.

Some other experts have gone higher. Disease expert Michael T. Osterholm, PhD, MPH, has estimated publicly that a pandemic could kill up to 1.7 million people in the United States and as many as 177 million worldwide. Osterholm is director of the University of Minnesota Center for Infectious Disease Research and Policy (CIDRAP), publisher of this Web site.

Henry L. Niman, a Pittsburgh medical researcher who is described as a critic of the WHO, said a pandemic could conceivably kill a billion people if the 72% mortality rate seen in recent confirmed human H5N1 cases prevailed, according to a Nov 29 *New York Times* report. In the same story, Klaus Stohr, chief of the WHO's influenza program, rejected Niman's estimate as unscientific and unjustified, saying the H5N1 death rate may be overstated because less severe cases might have gone undiagnosed.

US Health and Human Services (HHS) Secretary Tommy Thompson, in announcing his resignation plans last week, cited what he said was a WHO estimate that a pandemic could cause 30 million to 70 million deaths.

On the lower end of the scale is a 1999 estimate cited in HHS's pandemic preparedness plan, released in August. It said that a pandemic could cause up to 207,000 deaths in the United States. If the global death rate were the same as in the United States, that would mean a world toll of roughly 4.4 million.

The WHO today listed four reasons why it's hard to predict how bad a flu pandemic might be:

- Important details about past pandemics, including death tolls, are disputed. Even for the most recent pandemic, in 1968, estimates range from 1 million to 3 million deaths.
- Estimates based on previous pandemics "are problematic because the world in 2004 is a different place from 1918. The impact of greatly improved nutrition and health care needs to be weighed against the contribution the increase in international travel would have in terms of global spread."
- The characteristics of a future pandemic virus can't be predicted. It could affect anywhere from 20% to 50% of the population. No one knows how pathogenic the virus would be or which age-groups it would affect.
- The level of preparedness will influence the death toll.

"Because of these factors, confidently narrowing the range of estimates cannot be done until the pandemic emerges," the WHO said. "Therefore, response plans need to be both strong and flexible.

"Even in the best case scenarios of the next pandemic, 2 to 7 million people would die and tens of millions would require medical attention. If the next pandemic virus is a very virulent strain, deaths could be dramatically higher."

The agency went on to say it will convene a meeting on preparedness planning next week and will publish an assessment tool in the next few weeks "to evaluate and focus national preparedness efforts." Many WHO member countries have not even begun to plan for a pandemic, the statement added.

In response to the statement, Osterholm critiqued the WHO for not repudiating its previous estimate of 2 million to 7 million deaths and for not presenting at least a range of mortality numbers that could guide health policymakers.

He said current global deaths from ordinary flu total roughly 1.8 million every 2 years, which is about how long a pandemic would be expected to last. Therefore, "No one believes 2 million to 7 million is a remotely realistic situation" in a pandemic, he said.

Osterhom asserted that the WHO should explore "a wide range of numbers that reflect what would be considered a relatively mild world pandemic to what could realistically be considered a serious world pandemic . . . if for no other reason than that planners could get a sense of the morbidity and mortality they need to address in their plans. In short, the WHO needs to do more to provide better definition even in the context of a wide range of mortality estimates."