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Profile

Hitoshi Oshitani: watching out for an influenza pandemic

Hitoshi Oshitani, the person in Asia responsible for sounding global alarm bells at the first sign of a pandemic strain of influenza, admits feeling the strain of his job. "It is a very stressful situation. I'm under tremendous pressure." The stakes are high. Most experts agree that the emergence of a pandemic virus is not a question of if, but of when. Estimates range from 2 million to 150 million deaths worldwide. Early detection and containment measures could possibly save millions of lives. Oshitani, regional adviser in Communicable Disease Surveillance and Response at the WHO's Western Pacific regional office in Manila, says: "Our main goal is the early detection of the outbreak. We have a very narrow window of opportunity, need very aggressive containment measures within 2 to 3 weeks."

He explains that "Early containment of the virus with pandemic potential may be possible by giving antivirals to large numbers of people, up to 3 million, in a short time period. But this should be done with some other public-health measures, such as restriction of human movement." WHO will have 3 million courses of antiviral drug available soon, but Oshitani says it will be challenging to distribute the drugs to some of southeast Asia's more remote communities in such a narrow time frame. He also warns that "Such a containment strategy is less likely to be successful in big cities like Bangkok, because the virus can spread rapidly to many people and it is not feasible to give antiviral drugs to whole populations in such big cities."

Oshitani's knowledge of the difficulties a pandemic strain of influenza would pose reflects his wealth of experience in this area. As Peter Cordingley, WHO's spokesman for the Western Pacific Region, says "Dr Oshitani is the man at the sharp end in Asia, as he was during SARS [severe acute respiratory syndrome]. He is undoubtedly one of the world's leading specialists on influenza." During the SARS crisis, Oshitani coordinated response and preparedness activities in the Western Pacific region where more than 95% of SARS cases occurred. But unlike avian influenza, SARS was a manageable disease. "SARS was spread only by people with severe disease who could be identified and isolated. By contrast, avian influenza can be transmitted from people with mild symptoms or even those without any symptoms", Oshitani says

Since avian influenza first emerged, Oshitani and his team have been closely monitoring the disease. The avian virus strain, H5N1, does not currently pass from human to human efficiently, but Oshitani and other experts believe it could mutate into a human pandemic strain. Some see the estimate of 150 million human deaths as alarmist. WHO officially says that a more realistic estimate is from 2 to 7.4 million deaths, based on a model of the 1968 influenza pandemic, which Oshitani says was fairly benign. "We want

to maintain a level of awareness and concern in the general public and among policymakers, but at the same time we don't want to cause a panic", he says. Oshitani does not dispute the WHO estimate, but told *The Lancet*, "That is a best case scenario. If the next pandemic strain is of a particularly virulent nature, the death toll will be much higher."

Oshitani's regional office is better placed than it was to help prepare for an influenza pandemic. When he took the job in Manila, in 1999, his office consisted of himself, a technical officer, and one secretary, with "three or four" other people in the Western Pacific region. But "there was a huge economic impact from SARS and then avian influenza", Oshitani says. His office now has a team of some 20 people, with about a dozen other communicable disease experts in the region. He spends his long working day, from 0700 h to 2100 h, coordinating the office's disease surveillance and outbreak response activities with teams throughout the region and is in regular contact with WHO headquarters in Geneva. He's on the road about a third of the time. Angus Nicoll, from the European Centre for Disease Prevention and Control, describes Oshitani as a "good strategic thinker" whose knowledge he respects. "Sometimes when I have questions, I ask Hitoshi". When asked what drives Oshitani, Nicoll says: "Infectious disease tends to attract action-oriented people."

But Oshitani did not always want to pursue a career in infectious disease. His first interest was anthropology. "I wanted to visit many different countries and work in the field." But he chose medicine and trained as a paediatrician. After a PhD in microbiology from Tohoku University, Sendai, Japan, he spent 3 years in Zambia as a virologist where he became interested in public health. In 1996, he gained a masters in public health from the University of Texas Health Science Center at Houston, USA. 3 years later, he took up his current post and was initially joined by his family. But everyday life in Manila is not as easy as back home in Japan, and his wife and three sons have returned to Japan. When asked how he spends his free time now, Oshitani says "I used to mountain climb. Not enough time now, I'm too busy now."

Oshitani reveals that he is considering leaving WHO at some point, possibly to go back to Japan. "I want to be more involved in field work", he says, adding that he would "continue to support WHO activities". In the meantime, he will continue watching for first signs of a pandemic strain of influenza. "I'm still not sure if we can stop the next pandemic. I think that the chances are very slim to contain it and that the impact will be enormous. But as long as there is any chance of containment, we will do our best."

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