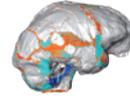


THIS WEEK

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The fight against bird flu

China's well-handled response to outbreaks of H7N9 avian influenza belies the country's bad reputation from its past dealings with disease. But there are still improvements to be made.

China deserves credit for its rapid response to the outbreaks of H7N9 avian influenza, and its early openness in the reporting and sharing of data.

A bad reputation is difficult to shake. A decade ago, China failed to report early cases of severe acute respiratory syndrome (SARS) and fumbled its initial response to the threat. Today, some commentators view its reaction to H7N9 with mistrust. But from all the evidence so far, China's response to the virus, which had caused 104 confirmed human cases and 21 deaths as *Nature* went to press, is next to exemplary.

China reported the H7N9 outbreak to the World Health Organization (WHO) on 31 March, just six weeks after the first known person fell ill. On the same day, it published the genomic sequences of viruses from the three human cases then identified on the database of the Global Initiative on Sharing Avian Influenza Data (GISAID). It has also shared all the sequences with the WHO, and live virus with the WHO and other laboratories. This has allowed scientists to identify the virus's mutations, trace its origins and develop crucial diagnostic tests. China continues to report new cases daily, and its media discusses H7N9 fairly openly. Chinese and other researchers have quickly published detailed analyses of the virus in journals (R. Gao *N. Engl. J. Med.* <http://doi.org/k7r>; 2013). Chinese President Xi Jinping added political clout last week when he called for an effective response, and said that the government must ensure the release of accurate information about the outbreaks.

China's response to the epidemic has also been brisk. Diagnostic tests have been distributed to hospitals and research labs across the country. The response, spearheaded by the Chinese Center for Disease Control and Prevention in Beijing, has united clinicians, virologists, and epidemiologists. Live-bird markets at which H7N9 has been found have been shut down, and birds culled. The agriculture ministry has tested tens of thousands of birds and other animals for the virus, to try to pin down the sources of human infections and explain their occurrence in cities hundreds of kilometres apart — no mean task given that China has some 6 billion domestic fowl and half a billion pigs, which can also carry the virus. So far, however, apart from birds at the live markets, the sources of infection remain elusive. To help track them down, and to collaborate in efforts to control H7N9, China has invited a team of WHO scientists and international flu experts to the country. They arrived last week, and are expected to report their preliminary conclusions this week.

Yet suspicions linger. Some critics have questioned, for example, the time between the first person falling ill on 19 February and China's first announcement about the virus, and have asked whether the announcement was deliberately delayed. This is unfair. With just a handful of severe pneumonia cases caused by the virus by mid-March, it is impressive that China realized as quickly as it did that something was amiss. It took the United States, which has one of the world's most advanced disease-surveillance systems, an almost identical amount of time to identify a novel H3N2 swine virus that caused serious illness in a child in 2011.

China has made a good start, but it is crucial for the country to

continue its openness over the H7N9 outbreaks. In particular, it must promptly report any evidence of human-to-human spread. There are also areas for improvement: data made public on human cases are often limited to basic facts such as age, sex, date of onset of illness and location. Epidemiologists also need more detailed data, including possible exposures to infection and underlying medical conditions. Case reports should be published in full in journals or online as quickly as possible.

It is also important that sequences from as many cases as possible are submitted to publicly accessible databases, because sequence data are important in tracking evolutionary changes such as new mutations that could allow the virus to spread between humans more easily. They can also provide clues to the source of infection (see page 399).

"China has made a good start, but it is crucial for the country to continue its openness over the H7N9 outbreaks."

Even as the Chinese authorities are being open and transparent on H7N9, some scientists are hoarding epidemiological and other data, because of intense competition to be the first to publish. Competition can be healthy, but in the face of a virus that has the potential to cause a pandemic, researchers have a duty above all else to share important data. Journals must be ready and willing, as in any public-health emergency, to fast-track peer review of H7N9 papers, and not let rapid publication of preprints stand in the way of considering papers for publication. Meanwhile, observers should continue to scrutinize China's response to H7N9, but they should also give credit where credit is due. It is time to recognize that China has changed. ■

Across the divide

Diagnostic boundaries separating mental disorders hamper effective treatments.

Scientists who attended the 2009 Winter Workshop in Psychology in Barcelona, Spain, may not have realized it at the time, but they were part of a revolution. In previous years, organizers named the event the Winter Workshop on Schizophrenia and Bipolar Disorders. It was one of the few conferences at which those who studied schizophrenia and those who worked on bipolar illnesses would meet.

As Nick Craddock, a psychiatrist who studies both conditions at Cardiff University, UK, says in a News Feature on page 416, a merger of these two distinct groups — even in semantic terms — would have been unthinkable until very recently. Psychiatrists diagnose