

## Sharing saves lives

A new initiative to improve the sharing of influenza disease data is an important development in efforts to prepare effectively for a potential global pandemic. Translating good intentions into practical action is the next challenge.

The dangers to global society posed by viruses are well documented, not least in the pages of this journal. As of late 2003, an avian influenza epidemic has resulted in human deaths in Vietnam, Cambodia, Thailand, Indonesia and China and, more recently, in Azerbaijan, Turkey, Egypt and Iraq. Although the total number of cases currently attributable to avian influenza is small in global terms — 241 cases, with 141 deaths — if the virus acquires the ability to become easily transmissible from person to person, a devastating global pandemic is a significant possibility.

In light of the magnitude of this threat, the onus is on the scientific and medical communities to gain a deeper understanding of the biology and evolution of avian influenza, information that will form the basis of effective preventative and therapeutic strategies. The full support and cooperation of the international scientific community is therefore urgently needed to investigate and track the genetic evolution of the virus, and decipher the molecular determinants underpinning its pathogenicity and transmissibility in humans. However, for this cooperation to be practical and effective, it is essential that the scientists and physicians intent on understanding the virus have unrestricted access to genetic, epidemiological and clinical data from both human and animal virus isolates. Currently, however, the reality is that the level of collection and sharing of data is demonstrably inadequate. Recent, highly publicized examples that emphasize the problem include the belated publication of a case describing a Chinese patient that tested positive for the virulent H5N1 strain in 2003 — contradicting the government's official line that no cases had occurred before November 2005.

The reasons for the culture of secrecy hindering the sharing of influenza samples and data are complex. Certain governments have restricted access to outbreak materials and data, fearing negative impacts on their economy and other national interests. Scientists in affected countries can be reluctant to cooperate, as they often see little in return by way of scientific cooperation and the appropriate attribution of credit. In addition, some researchers and institutions also prevent access to their data, often for long periods, for competitive reasons. Even the WHO, although supportive of wider

sharing, has its critics for failing to facilitate and encourage earlier data release.

With such crucial gaps in our global epidemic preparedness, the recent announcement by 70 leading researchers and other interested parties on the formation of a new initiative dedicated to improving influenza data access is a particularly welcome development<sup>1</sup>. The Global Initiative on Sharing Avian Influenza Data (GISAID) is a consortium open to all scientists providing they agree to share their own data, analyse findings jointly and credit the use of each others' data in any resulting publications and intellectual property agreements. In addition, all data collected under the initiative will be deposited in three publicly available databases participating in the International Sequence Database Collaboration. The group have also committed to making all data available as soon as possible after analysis and validation, and certainly no later than six months following initial submission. As the H5N1 avian virus spreads around the globe, it remains to be seen whether the six-month window for data analysis is appropriate; however, the consortium do anticipate this deadline to shorten as operating procedures are established and refined.

In obtaining the support of such a diverse cross-section of interested stakeholders, the consortium has already made significant progress and is to be congratulated on their efforts. Furthermore, the attraction of widespread international support for GISAID, in addition to recent commitments by both the Indonesian government and the US Centers for Disease Control and Prevention to share all influenza genomic data from their countries, are encouraging developments in the drive for improved data access<sup>2</sup>. However, popular agreement and support for the principles of GISAID is only one step towards the goal of improving pandemic preparedness. The real work of maintaining momentum, and promptly putting in place the practical procedures and policies that will make this goal achievable, is only just beginning. We wish them well.

1. Bogner, P. *et al.* A global initiative on sharing influenza data. *Nature*, **442**, 981 (2006).
2. CDC Press Release: <http://www.cdc.gov/od/oc/media/pressrel/r060822.htm>

**FURTHER INFORMATION** GISAID: <http://gisaid.org/>

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