

## Joint Science Academies' Statement: Avian influenza and infectious diseases

*At present the world faces a problem caused by the spread of avian influenza. There is a possibility that this could develop into a new human influenza pandemic. Pandemics are rare but can have devastating consequences for public health all over the world. SARS (Severe Acute Respiratory Syndrome) resulted in severe economic losses, estimated as high as thirty billion US dollars. The social and economic consequences of an influenza pandemic would likely be significantly higher.*

Avian influenza is only one of any infectious diseases we face globally. It is currently a significant concern for animal health and the poultry trade and has potential for initiating a pandemic in humans. At present, however, it is by no means the most significant disease concern for people globally. While some of the actions currently being taken are only of relevance to avian influenza, some (for example establishing national and international disease surveillance networks) will be useful for other infectious diseases as well. It will be crucially important for the global community not to forget these other diseases whilst tackling the problems of avian influenza. On the other hand, avian influenza could become the catalyst to improve research and response capacity to emerging or re-emerging disease threats globally.

Latest experience has showed that measures to control emerging zoonotic diseases, both to curb their expansion and to diminish economic losses, must be closely coordinated internationally to prevent long-term risks to human health.

### **Recommendations**

All countries of the world should cooperate in addressing the present issues surrounding avian influenza, as well as the long term global strategies to address other major and emerging infectious diseases. This will demand coordinated actions on a global scale by a whole spectrum of stakeholders including governments, scientists, public health experts, veterinary health experts, economists, representatives of the business community, and the general public.

We therefore call on world leaders, particularly those meeting at the G8 Summit in St. Petersburg in July 2006, to implement the following recommendations. For our part, we also commit ourselves to working with governments and other appropriate partners in order to achieve these goals.

\* Support existing international initiatives to monitor and combat avian influenza, in particular those of the World Health Organization (WHO), the World Organization for Animal Health (OIE), the United Nations Food and Agricultural Organization (FAO), and the World Bank. The WHO in particular has developed a draft protocol for timely response to and containment of a possible pandemic, including biosecurity aspects of containment, and has made a number of other recommendations. States should pay particular attention to these recommendations in designing and implementing their own national strategies in anticipation of possible arrival of avian influenza and other pandemic threats within their borders.

\* Provide support to developing nations in the implementation of their own national strategies to address avian influenza and other infectious diseases, in capacity building of respective infrastructures (particularly for monitoring and detection) and also in helping them to reduce the inevitable social and economic effects of infectious disease outbreaks on the poorest strata of their populations. Not all countries currently have sufficient capacity to implement measures to combat avian influenza or other infectious diseases. Such infrastructures are crucially important in standing against this threat while maintaining economic growth and sustainable development. A recent international donor conference in Beijing in January 2006 confirmed the readiness of governments and international organizations to support coordinated actions in developing nations in their efforts to counter avian influenza. These actions must be carried out.

\* Global surveillance is the fundamental instrument for the control of emerging and zoonotic diseases. The current multicomponent and uncoordinated system is not adequate in geographic coverage and human or scientific capacity. The policies for improvement and coordination will involve multiple levels of national and international governmental institutions as well as a variety of scientific, public health and non-governmental organizations as stakeholders in the current and future systems. G8 governments should therefore seek an independent, evidence-based study (for example by the InterAcademy Council, involving experts from G8 countries and the developing world) to make recommendations for further development of global surveillance capabilities. Such a study would include the appropriate roles, coordination and reporting mechanisms; the human, scientific and technological capacities; and the related costs to improve the world's disease surveillance capability.

\* Global scientific and medical communities should be mobilised in order to develop new vaccines and drugs, and new more rapid methods for the production of vaccines (the current worldwide capacity for seasonal influenza vaccine production is estimated to

be around 300 million doses per annum). More research is also needed to develop a better understanding of the most effective ways to use current vaccines and drugs that are available on the market.

Given the zoonotic origin of avian influenza and several other important infectious diseases, governments and the scientific community should promote international cooperation between human health and veterinary experts to elaborate new methods for detection, diagnosis, prevention and treatment of infectious diseases that take into account the diverse environments and communities that exist globally, with varying capacities to successfully address disease outbreaks.

\* Governments should be encouraged to collaborate more in the collection of clinical and epidemiological data. The SARS outbreak highlighted problems with the sharing of clinical data from infected patients. Countries should implement strategies that allow clinical data to be accessed and shared, particularly in the early stages of pandemic, so that information on the disease, those at greatest risk, the best treatment and clinical care can be identified and distributed.

Furthermore, national strategies being developed now should include protocols for the evaluation of interventions before and during possible outbreaks, so that this knowledge can be shared with other countries who have not yet been affected. Collaborative research networks and infrastructure should be established now.

\* Many of the issues that affect influenza are also relevant to a number of other infectious diseases. It should be noted that, especially in the context of less developed countries, other infectious diseases such as tuberculosis, HIV/AIDS, malaria and ebola cause widespread illness and economic harm. The fight against these diseases is already under-funded. The world community must ensure that the focus on avian influenza does not compete with, but rather motivates the development of broad-based and sustainable infrastructure with the capacity to address an array of infectious disease threats globally.

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