

## EDITORIALS

# Human rights and public health during pandemic influenza

T JACOB JOHN

Civil Supplies Godown Lane, Kamalakshipuram, Vellore, Tamil Nadu, 632 002 INDIA e-mail: vlr\_tjohn@sancharnet.in

The avian influenza (bird flu) scare is very current in the media (1). Different H and N types of influenza viruses infect birds, mammals and humans. Flu is very common among birds, but is almost always asymptomatic or only mildly pathogenic. Normally, avian flu does not infect humans. Since 1996, a new virus, designated 'highly pathogenic avian influenza' (HPAI) H5N1, has caused outbreaks (epizootics) of severe illness with high mortality in chicken and duck farms in many East Asian countries. It has caused human illness in about 140 individuals, with 50 per cent mortality (1). Millions of poultry and ducks have been killed to contain the epizootics; yet the illness continues to occur and has now spread to Eastern Europe. Although H5N1 does not transmit between persons, flu viruses are notorious for their genotypic and phenotypic plasticity and we fear that there may be eventual adaptation to human hosts and a devastating epidemic. The world has to balance anxiety and hype on the one side and public health preparedness on the other (1).

There have been four human influenza pandemics in the 20<sup>th</sup> century, the last being in 1968. The next one is due any time; getting prepared for pandemic influenza is a global priority. If the influenza is due to a human-adapted HPAI virus H5N1, its consequences will be a virtual global epidemic comparable to a tsunami. No one can predict when it will come or, indeed, if it will occur at all. But it would be foolhardy to ignore the threat. Much discussion and research highlight essential public health responses – vaccines and antiviral drugs are essential. Case detection, notification and restriction of activities are envisaged in national plans of response in rich nations.

This journal has recently addressed issues of human rights and public health in relation to HIV/AIDS (2) and infectious diseases with particular reference to severe acute respiratory syndrome or SARS (3). In the public health response to communicable diseases in the past, the traditional tools of compulsion, coercion and restriction were applied almost unchallenged. With HIV/AIDS, the public health approach had to be revised in the light of human rights. The new norms include confidentiality, testing only after counselling and informed consent, and safeguarding of human rights. These principles were violated during the SARS scare when individuals suspected to be exposed to infection were identified, forcibly tested, quarantined until found uninfected or until the expiry of the incubation period (3). In the event of an influenza pandemic, this scene is quite likely to be repeated with larger numbers of people targeted. How should we promote human rights and balance them with public health?

Public health interventions apply to the environment if the infection is acquired via contaminated water/food, blood sucking vectors, and contact with animals, soil or invertebrates. When infected individuals are the source of infection to others, detection and restriction become elements of public health intervention. Thus, early diagnosis of bacillary tuberculosis or malaria and effective treatment to render the persons non-infectious (at no cost to them) are practised for public health. All human-to-human transmitted infectious diseases may be called "anthroponoses" or "communicable diseases". Among them is a hierarchy of infectiousness. Contagious diseases transmit through common social contacts – via respiratory droplets or aerosols. Measles, chickenpox and influenza are common examples, while pulmonary plague is a rare example. Sexually transmitted infections including HIV/AIDS are communicable but not contagious.

From ancient times, identification and restriction of infected (and ill) persons with contagious diseases such as smallpox and pneumonic plague were practised for restricting spread. Influenza is contagious but usually not so feared as to evoke forced testing, detection or restriction. If the HPAI H5N1 virus adapts to human-to-human transmission, and if it retains the current rate of mortality, the epidemic will certainly decimate the human population, as we have no past immunological experience with it. Obviously effective public health intervention is absolutely essential, and the elements in it must be identified and made known to the public. Only when they are known can we apply the principles of ethics and human rights to fine tune them and make them just, fair, non-discriminatory and acceptable.

There is a world of difference between epidemics of influenza and HIV/AIDS as public health challenges. Indeed they mark the polar ends of a spectrum of complexity in the necessary tactics of public health. HIV/AIDS is a prolonged epidemic, infection is surreptitious, healthy persons harbour the virus for life (as of now), the incubation period is measured in months to years, but it is non-contagious. Targeting infected persons using public health tactics (detection, personal identification, compulsory testing and restriction) appropriate for contagious diseases is unscientific, discriminatory, violative of human rights and quite uncalled for.

An epidemic of influenza on the other hand will be short-lived, spread fast and wide, and disrupt normal societal and institutional functioning. The incubation period and the infectious period are both very short – just a few days. Restriction will be necessary but short, and will not necessarily contribute to violation of human rights. Stigma or discrimination is unlikely. Indeed it will be unethical not to apply the public health tactics of prevention and control to avoid greater human hardships. Such detection, testing and restriction must be ethical and within the accepted ‘Siracusa principles’\* on the “limitation and derogation of provisions in the international covenant on the civil and political rights” (4). To achieve these, we must be scientifically competent and efficient. Epidemiology must be robust, testing must be selective, diagnosis must be accurate and restrictions minimal. Almost everyone infected will fall ill and the time interval from the start of the illness to its diagnosis has to be short. Restrictions will apply both to the ill and the well. If a vaccine and/or drugs are available their equitable distribution must be thought out ahead of time for scientific appropriateness and equity.

The critical ethical issues to me are the lack of diagnostic support service in our medical establishments and the lack of functional disease surveillance in the public health system. HIV/AIDS taught us the need for accurate diagnosis; other diseases are often presumptively treated. Plague and Japanese encephalitis have taught us the need for surveillance to detect and intercept outbreaks. These defects are likely to lead to inappropriate case diagnosis and public health interventions.

What we need immediately is debate and deliberations of all issues involved in confronting any epidemic, with influenza in particular. Will every hospital require diagnostic facilities? What are the essential diagnostic tests in hospitals with different bed-strengths? Can teaching hospitals be safe without diagnostic virology? If we do not prepare ourselves mentally, we will have to make ad hoc decisions with the attendant risk of making mistakes. If we take positive steps we shall progress, even if the epidemic does not occur.

### **Siracusa principles**

- The restriction is provided for and carried out in accordance with the law; the restriction is in the interest of a legitimate objective of general interest;
- The restriction is strictly necessary in a democratic society to achieve the objective;
- There are no less intrusive and restrictive means available to reach the same objective;
- The restriction is not drafted or imposed arbitrarily, ie in an unreasonable or otherwise discriminatory manner.

### **References**

1. John TJ. Bird flu: public health implications for India. *Economic and Political Weekly* 2005; 40: 4792-4795.
2. Loff B, Black J. Principles of public health action for infectious diseases. *Issues Med Ethics* 2003; 11: 113-115.
3. Nagral S. SARS: Infectious diseases, public health and medical ethics. *Issues Med Ethics* 2003; 11: 70-71
4. World Health Organization. *25 questions and answers on health and human rights*. Geneva: WHO, July 2002; p18.

**The Indian Journal of Medical Ethics is now indexed in  
MEDLINE and PUBMED**