comment on the live poultry trade
Leo Poon to: panel_fseh@legco.gov.hk 11/05/2017 17:23

From: Leo Poon [redacted]
To: "panel_fseh@legco.gov.hk" <panel_fseh@legco.gov.hk>

Dear Sir,

This is Leo Poon, a professor in School of Public Health, The University of Hong Kong. I research on human and animal influenza viruses for over 20 years. This school is one of the H5 reference labs in World Health Organization (WHO) and I personally have served as an expert in WHO PCR working group for influenza virus detection for almost 10 years. I would like to use this occasion to share my PERSONAL views on the Consultancy Report recently released by FHB.

Hong Kong is internationally considered to be one of the most successful examples in controlling avian influenza (AI) in poultry. With the existing measures, I consider the risk of having avian influenza infection in human because of the poultry industry in Hong Kong is extremely low. All the human H5 and H7 cases detected in Hong Kong after 1997 were exclusively imported cases. This simple fact is already self-explained.

Hong Kong had sporadic H5 or H7 cases in poultry over the last years, but the number of positive chicken in each of these incidences was extremely low and prompt decision was made by the government in each occasion. These all reflect that HK has a robust surveillance system and comprehensive contingency plans at different levels to control AI. This effective strategy or system was not established in HK overnight, it came from years of experience and discussion. In addition, many of these control measures are entirely based on robust scientific evidences.

A complete ban of selling live poultry in market would have radical changes on the current trading, farming and cultural practices. Besides, this might just put the public to be exposed to new risks that we are not familiarized with. I would like to highlight the fact that selling frozen and chilled chicken cannot reduce the risk of human AI infection to zero. It is well known that human can acquire AI infection because of handling contaminated poultry meat and that infectious H5 viruses can be detected in contaminated frozen meat. If Hong Kong can manage to acquire H5 and H7 free poultry from licensed farms, the argument for the ban of selling live poultry is rather weak. Clearly the utmost important issue for reducing human AI infection is how HK can safeguard H5/H7 free poultry. Besides, even live poultry can no longer to be sold in wet markets, similar regulatory practices for controlling AI (e.g. H5 vaccination, surveillance etc) still have to be maintained and the whole supply chain is still have to be monitored closely. Thus, similar resources and manpower still have to be used to keep HK free from highly pathogenic avian influenza virus.

I also have some comments that are specific to a few points mentioned in the report:

- Relocation of wholesale market

This might help to reduce the chance of having general public to be exposed to H5 and H7 viruses. But one should also consider whether the new site can handle local and imported poultry separately. This might help to reduce the financial implication, both to the government and the poultry industry, in a H5 or H7 event. In addition, this might help to maintain some supply of live poultry to the public in an outbreak.

- Surveillance

The enhanced influenza surveillance in poultry using RT-PCR tests is strongly supported. But one should aware of the potential loophole of this kind of rapid tests (e.g. false negative because of primer mismatches). Influenza virus is a highly mutable virus. It is well possible that some of the rapid tests would lose their sensitivity because of unexpected mutations. Thus, I would like to reemphasize on the importance of classical virus detection in our surveillance (e.g. isolation of influenza viruses using eggs).

- Reinforcement of existing policy

- Vaccine

In HK, the primarily objective of using influenza vaccine in poultry is to reduce the risk of AI infection in human, whereas this might not necessary be the main reason of using this kind of poultry vaccines in other countries. With the exception of a few cases, the current H7N9 viruses found in this geographical region is still considered to be a low path AI (in chicken). Thus, poultry industry in other countries might not see the need of using H7 vaccine to control H7N9 in poultry. There are H7 poultry vaccine being developed and some of these are experimentally proved to be effectively. Considering the H7N9 activity in nearby region is very high, the government should consider using H7 vaccine to reduce the risk in HK ASAP.

- Control of minor poultry

Trading of minor poultry is not as well-regulated as the one for chicken. Previous work showed that minor poultry can also have high AI activities. These minor poultry species are also susceptible to H5 and H7 virus infections. Considering some of these minor poultry species are imported from nearby regions without influenza vaccination, extra efforts for controlling AI activities in minor poultry populations should be made. Perhaps, a more comprehensive and systematic surveillance on these populations might help to quantify the potential risk.

Yours faithfully,

Leo Poon

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