

# PANDEMIC PREPAREDNESS FORUM

**Thursday, 2 September 2010, 2-5pm**  
Imperial Queen's Park Hotel, Sukhumvit Soi 22, Bangkok



Organised by the  
United Nations System Influenza (UNSIC) Asia-Pacific Regional Hub

**Theme: WILDLIFE AND ITS EFFECTS ON PANDEMICS**

*The minutes, presentations and other information about this and past Pandemic Preparedness Forums can be found on the United Nations influenza website at <http://un-influenza.org/node/3730>*

**Chair:** Mr. C Y Gopinath, Regional Communication Coordinator, FAP RAP

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## **Organizations present:**

1. DAI
2. Conservation, Research and Education Division, Dusit Zoo
3. Embassy of Japan
4. Food and Agriculture Organisation (FAO), RAP
5. International Federation of Red Cross and Red Crescent Societies (IFRC)
6. World Organisation for Animal Health (OIE)
7. United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA/PIC)
8. United Nations System Influenza Coordination (UNSIC)

*Total: 14*

## **14:05 Introductions of participants**

## **14:10 Organizational Updates**

**UNSIC:** *'The 1st Asia-Pacific Emerging Infectious Disease Risk Communicators' Forum: Successes, challenges and ways forward in delivery of effective animal and human health risk communication'*, will take place 28-30 September at the Queens Park Imperial Hotel in Bangkok. The 3-day event will bring together communication specialists from UN and NGO bodies, to; showcase and review the successes, gaps and challenges in tangible animal and human health risk communication activities; to discuss the ways agencies can best support systems and skills development at cross-country level, to encourage good risk communication in response to emerging infectious diseases, and to make considered recommendations to inform future practice. The event is being organised by the Asia Regional Risk Communication Initiative - a recently established group of regional communication focal points from AED, ASEAN, FAO, IFRC, WHO, UNICEF and UNSIC.

**UNSIC:** The *'5th Animal and Pandemic Influenza Global Progress Report - A Framework for Sustaining Momentum'*, will be launched in Washington on 15 September with the World Bank. It is currently available on the UN Influenza Portal at [www.un-influenza.org](http://www.un-influenza.org). Hard copies of the report will be shared at the next PPF on 7 October. The 2010 report is the fifth in a series of joint UN/World Bank progress reports have been assessing the global responses to these 21st century diseases and making the case for effective national and global preparation. It is the most comprehensive report in

the series and the first to take into account the 2009 H1N1 pandemic. It also details results of the 2010 International Ministerial Conference on Animal and Pandemic Influenza, in Hanoi.

### **Presentation: 'Wildlife and Emerging Infectious Diseases: The Southeast Asia Perspective'**

**14:20** Presentation by Dr. Boripat Siriaronrat, Chief Veterinarian, Dusit Zoo

(Please see PowerPoint presentation slides on website)

#### **15:20 Q&A**

**Q: (UNSIC)** The proximity of urban living with rural wildlife space is a primary driver for much of these emerging infectious diseases. Which poses the bigger risk, exotic pets penetration to urban areas or farms penetration to wildlife space?

**A:** In Thailand, people still hunt and eat wildlife with no awareness of the risks involved. This behaviour needs to change if the number of emerging infectious diseases is to be reduced. We also see wild animals (for example, cattle) roaming in the domestic parks, which could also be a risk. However, we are yet to do any scientific research to quantify the wildlife-human interface.

**Comment: (UNSIC)** In developed countries it appears that the scene is somewhat different - there is a larger divide between urban living and wildlife except exotic pets.

**Q: (ILO)** What is your opinion that good practices like Personal Protective Equipment may be redundant, as the presentation shows that many wild animals are crossing into the human domain, undoing the good practices being implemented at the poultry factory door.

**A:** Some sectors of poultry are in safer more protected environments than others, such as wild ducks. Overall, bio-security and education needs to be improved, and also subsidies need to be provided to improve the ways in which people raise poultry. We need to identify which sectors are at the highest risk and protect them, and we need to look closer at the movement patterns of birds.

**Q: (UNSIC)** What is your view on the impact of climate change on emerging infectious diseases?

**A:** Within Dusit Zoo, various discussion groups are held amongst staff on the topic of the impact of climate change. For example, in the case of certain types of frogs, their microhabitat is so fragile that a one or two degrees change in their habitat can kill them, so we can see here that there is a direct link between climate change and EIDs. For wildlife animals the impact of climate change is not as closely linked, and we do not know enough to say for sure. Research is needed into on the impact of climate change in animal diseases in order for us to find out more. We have limited budgets so we need to carefully decide which diseases to investigate.

### **Presentation: 'Wildlife in an Influenza and One Health Context'**

**15:50** Presentation by Dr. Jarunee Siengasnan Lamont, Technical Officer, World Organisation for Animal Health (OIE)

(Please see PowerPoint presentation slides on website)

#### **16:20 Q&A**

**Q: (UNSIC)** Wild birds, I understand, are usually asymptomatic to H5N1, whereas the presentation noted that carcasses samples had a higher sero-positivity rate than those from healthy-looking wild birds. Does it indicate a severe clinical manifestation among the wild birds?

**A:** In the first period of the surveillance, especially in 2004 (the first time there was an outbreak in Thailand) infected wild birds showed have manifested severe illness whereas at the end of the programme they developed milder clinical manifestations, probably due to the attainment of immunity and/or change of viral pathogenicity.

**Q: (UNSIC)** In the study from 2004-2007 it seems that the wild birds infection is longer standing than poultry outbreaks. Although it is not a direct comparison, can this be explained by some kind of intervention?

**A:** Possible explanations would include a silent outbreak of H5N1 in poultry at the time of the study, distribution of the virus among wild bird populations, persistence of the virus in environment and/or movement of poultry and formite. Interactions or close contact between wild birds and domestic animals were observed in the field. Thus, if there is a disease outbreak in the area spill-back and spill-over are likely to occur through interspecies interactions.

**Q: (FAO)** In slide 5, 'Risk assessments of transmission of H5N1 virus from wild birds to poultry', how do you determine that wild birds entering the compound are infected with H5N1?

**A:** Quantitative risk assessment is an assessment of probabilities. We used prevalence of H5N1 infection in wild birds from wild bird surveillance program as the probability of wild birds infected by H5N1.

**Q: (Dusit Zoo)** Is it correct that all cases of wild birds that were studied with positive cases were not shedding the virus?

**A:** No, there were two wild bird samples that tested H5N1 positive to viral isolation. However, all wild birds tested positive to the Neutralization Test (NT) did not shed virus at the time.

**Q: (UNSIK)** Between the specimens you have taken from the wild birds and those isolated in poultry events and tested by the national authority, did clade and sub-clade match?

**A:** We did not test for clades and sub-clades, but rather the genotype was closely related to other Thai isolates.

**Q: (Dusit Zoo)** If the wild birds were not shedding, how can you conclude that the wild birds were the cause of the spreading into the local population?

**A:** Samples collected from wild birds were serum, tracheal and cloacal swab and carcasses. There were two samples tested positive to viral isolation which mean that they were shedding at the time. However, some wild birds can possibly recover after infected by H5N1 as some wild bird samples showed sero-positive without viral shedding. Also, Phylogenetic analysis revealed that the viruses isolated in this study were closely related to Thai poultry viruses isolated previously in other parts of Thailand. In conclusion, wild birds can help spread and maintain H5N1 virus in the areas, however; there was no evidence of wild birds introduce new strain into Thailand. Thus for Thailand, wild birds were less likely to be a vector who introduced the virus into the country.

**Q: (UNSIK)** The study showed that risk of having H5N1 infection relating to presence of a lesser whistling duck in farm was a 0.25 per annum. Can you clarify what this means?

**A:** This means that if you have four lesser whistling ducks visiting your farm in a year, the farm is likely to be infected by H5N1. However, lesser whistling ducks are unlikely to come close or in contact with human and domestic animals. The observation study showed that the ducks were not observed landing in household and poultry keeping areas.

**Q: (Dusit Zoo)** Why do you think prevalence of H5N1 infection in domestic poultry dropped while the prevalence in wild birds did not?

**A:** As this study was focusing on wildlife component, I am unable to answer that due to the disease transmission of H5N1 is complex which involve other components such as environment, domestic animals, and movements of formite including human. This is why the One Health approach is so important to investigate and control a zoonotic disease.