OFFLU technical meeting for head of avian influenza reference institutions and swine influenza experts, OIE, Paris, 15th and 16th September 2009 Summary of main points and proposed actions

Chairman – Steve Edwards (Chair of OFFLU Steering Committee)
OFFLU Executive Committee – Ilaria Capua, Gwenaelle Dauphin, Keith Hamilton
OFFLU Scientist – Mia Kim
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OFFLU Experts – David Swayne (USA), Ian Brown (UK), Timm Harder (Germany), Peter Daniels (Australia), Paul Selleck (Australia), Dennis Senne (USA), John Pasick (Canada), Dr Dubey (India), Hiroshi Kida (Japan), Yongping Jiang (China), Amy Vincent (USA), Sabrina Swenson (USA), Igor Romero (Mexico), Viktor Irza (Russia), Marek Slomka (UK), Cristobal Zepeda (USA), Veronique Jestin (France), Mirzet Sabirovic (UK).
WHO – Global Influenza Programme – Liz Mumford
OIE/FAO – Bernard Vallat, Juan Lubroth, Kate Glynn, Gideon Brückner
OIE/FAO foot and mouth (FMD) disease network – David Paton

This second OFFLU technical meeting aimed to:

- Provide a forum for networking and an open exchange of information and ideas
- Review and build upon actions that had been agreed at the previous technical meeting in March 2008
- Contribute to developing a work plan and direction for the future

Links within the OFFLU network and with WHO have been strengthened considerably since the previous OFFLU technical meeting in March 2008. In response to the emergence of pandemic H1N1 2009 in humans, OFFLU made a significant change to its mandate so that it now covers all influenzas in animals rather than solely avian influenza. Throughout the current H1N1 pandemic, information exchange and collaboration between WHO and OFFLU at the human animal interface has been most fruitful. WHO looks to OFFLU as a key source of information for influenza in animals. OFFLU appreciates the active and positive contribution made by all of its animal health influenza experts, and by WHO for promoting OFFLU in the human health sector.

The first day of the meeting was focussed on avian influenza and the second day on swine influenzas and pandemic H1N1 2009.

Day 1 – avian influenza

There remains a need for OFFLU to achieve greater regional representation and to raise its profile, particularly at the regional level.

Actions: OFFLU Executive Committee to actively improve regional representation within OFFLU, to actively raise awareness in the regions, and provide PowerPoint slides about the objectives and activities of OFFLU to all OFFLU experts (to be posted on the OFFLU website).

Action: Reference Laboratories and Centres, Collaborating Centres and OFFLU experts should use the OFFLU logo where appropriate.

Action: OFFLU Experts to review the OFFLU information brochure provided to them at the meeting and submit any comments to the OFFLU Secretariat by October 2nd 2009.

Action: OFFLU Executive Committee and Steering Committee to identify priorities to be presented to donors.

The OFFLU experts provided an update on their current activities in relation to avian influenza, including diagnostics, research, and OIE/FAO Reference Laboratory/Collaborating Centre responsibilities. The presentations will be available on the OFFLU website (www.offlu.net)

There are still parts of the world where laboratory capacity for avian influenza detection and control is deficient. OIE and FAO are involved in laboratory capacity building and need to ensure that their efforts are synergised. Provision by OFFLU of generic 'Laboratory management plans' can assist laboratories in capacity building, especially with regards to quality assurance.

Action: OFFLU Secretariat to develop a generic laboratory management plan in collaboration with VLA to assist less well resourced laboratories in achieving results.

There is an increasing reliance on RT-PCR as a screening tool for influenza A detection. Used alone, RT-PCR can carry the risk of obtaining erroneous results, highlighting the importance of referring diagnostic samples to National and International Reference Laboratories, and applying the full suite of diagnostic tests, where appropriate and as described in the OIE Diagnostic Manual of Terrestrial Animals.
http://www.oie.int/eng/normes/mmanual/2008/pdf/2.03.04_AI.pdf

Action: OFFLU to develop an algorithm that provides guidance on testing regimes for avian influenza diagnostic samples and when to refer samples to a National or International Reference Laboratory.

Any key changes in viral characteristics – including antigenic and genetic changes – detected in influenza viruses in animals that may affect animal or human health must be reported to OFFLU quickly and, through OFFLU, to WHO. To ensure this, it is important that there is trust within the network and that experts share information in a timely and, if necessary, confidential manner. Any institution that shares data or viral material with another institution must be recognised in any subsequent publications.

Experts noted that there remains a tendency for influenza related training activities to lack coordination with each other.

Action: OFFLU Executive Committee to convene a technical activity to discuss better coordination of training.

Action: OFFLU Scientist to develop a training questionnaire for OFFLU institutions, and maintain a database of participants of training events at the various OFFLU institutions.

In March 2008 the OFFLU Experts proposed 8 different technical activities to address specific avian influenza related technical issues. The technical activities continue to make good progress and several have already delivered results. Updated presentations are available on the OFFLU website (www.offlu.net).

Action: Current technical activities should continue until they reach their natural conclusion

There is renewed discussion about surveillance for influenza viruses in animals, particularly in relation to pandemic H1N1 2009. When developing a strategy it will be important to consider the objectives of surveillance and monitoring in animals; the response to positive findings; implications for animal and human health; ways to target surveillance; the feasibility of implementing sustainable surveillance/monitoring; and the potential impact on industry or trade.

Action: OFFLU applied epidemiology technical activity to develop a joint OIE-FAO (OFFLU) review and strategy for surveillance of pandemic H1N1 2009 virus, and other influenzas, in animals, utilising existing OIE, FAO and other guidance.

Action: OFFLU technical activity on proficiency testing to develop a strategy for the synthesis of proficiency testing data from different regions of the world to provide a global picture of veterinary diagnostic capabilities.

Vaccination has a key role to play as a complementary control measure in the control of avian influenza, but must be implemented effectively, in the context of an overall disease control strategy, and account for the epidemiological and virological situation. Results of the OFFLU project in Indonesia seem to confirm that antigenic cartography is a good predictive tool for antigenic matching.

Recommendation: Antigenic analysis (including HI and antigenic cartography data) and an analysis of the epidemiological situation should play a key role in informing animal vaccination strategies, including the selection of vaccine seed strains.

A presentation made by the OIE/FAO foot and mouth disease (FMD) network highlighted that there is much that can be learnt from interaction with other disease networks. The FMD network regularly collates antigenic and genetic data about FMD viruses circulating globally in an efficient and sustainable way.

Action: OFFLU Secretariat to draft annual reports – including an annual consolidated surveillance report and information about core activities.

Collaboration and information exchange between OFFLU and WHO has greatly improved. There is a need to provide more useful information, about circulating influenza viruses in animals, to WHO in a coordinated and sustainable way, ahead of their vaccine strain selection meetings.

Action: OFFLU Executive Committee to propose ways to improve efficient collation of useful data from the animal health network for presentation to the WHO vaccine strain selection meeting.

Further review of international regulations for handling samples from species listed under CITES requires that oropharyngeal and cloacal swabbing are invasive procedures and that laboratories receiving such samples for routine import/export quarantine testing need specific licenses. This would be particularly relevant where laboratories are conducting tests on behalf of third countries, i.e. the birds are initially being sampled outside the final port of destination. If you have any further queries regarding this matter, please contact Ruth Manvell at VLA

Action: OFFLU Secretariat to disseminate information about the implications of receiving diagnostic samples from species covered by CITES.

Day 2

WHO provided an update on the global pandemic (H1N1) 2009 situation and implications for human health and stressed the importance of early detection and characterisation of pandemic (H1N1) 2009 viruses circulating in animals for early detection of mutations of public health significance. . The OFFLU Experts provided an update on current animal health related pandemic H1N1 2009 research and surveillance activities conducted in their respective laboratories. Mexico (CPA) presented about the response of the Mexican animal health services to outbreaks of pandemic (H1N1) 2009 in the human population. The presentations will be posted on the OFFLU website (www.offlu.net).

Action: OFFLU Executive Committee to convene a group to develop an OFFLU research agenda on influenza in animals, which will identify research priorities for the network.

Pandemic H1N1 2009 has been detected in several pig herds on more than one continent, and experimental infection and transmission between pigs has been demonstrated. Currently, there is no evidence to suggest that pigs are playing a significant role in the epidemiology of pandemic H1N1 2009, and so far disease in pigs has been mild. Past experience and current evidence shows that pigs are at risk of infection from people (and vice versa) and that there is the longer term possibility that pandemic human viruses will become endemic in pigs populations. The characteristics and epidemiology of swine influenza viruses vary between different regions of the world; this has clear implications for surveillance and diagnosis of pandemic H1N1 2009 in pigs. H1N1 testing protocols must be adapted to the local context. However for regions or countries that have limited knowledge on swine influenza circulation and limited capacities to make selection of testing protocols, OFFLU should provide some guidance on diagnostic tests. Current evidence also suggests that poultry are not playing a role in the epidemiology of pandemic H1N1 2009.

There needs to be an ongoing assessment of the risks posed by pandemic H1N1 2009 to animal health, and the risks that infections in animals may pose to human health. There is potential for this pandemic virus to reassort with other influenza viruses, including H5N1 highly pathogenic avian influenza, in humans or animals, or for the pandemic virus to pick up mutations with animal or public health relevance. OFFLU and WHO need to foster the strong functional links and share information in a timely manner.

In relation to swine influenza viruses that are known to normally circulate in pig populations, there are wide variations in viral characteristics and epidemiology between different parts of the world. Swine influenza does not have a significant impact on pig health or production globally and is not an OIE listed disease. Different countries have taken different approaches to vaccination for swine influenza viruses. The USA has particular experience of vaccinating swine populations to protect against disease.

Action: For OFFLU laboratories that are willing to provide laboratory support to the human health sector to contact the OFFLU Secretariat indicating the nature of the support that they can offer i.e. genetic sequencing, analysis of sequences.

OFFLU continues to encourage all members to deposit sequence data into publicly available databases in a timely manner and refers OIE Reference Laboratories to their obligations to do this (OIE Resolution XXVI May adopted in May 2008). OFFLU does not recommend any one particular database base but suggests that experts use what best suits their needs.

Funds are available for a small technical project involving two or more OFFLU institutions in more than one region, relevant to the objectives of OFFLU. Further information will be sent to the experts.

Action: Experts to submit proposals for an OFFLU technical project (no longer than 1 page of A4) to the OFFLU Secretariat before the end of November 2009.

The concept 'One Flu' was presented to the experts. The idea is to establish a permanent international observatory looking at animal influenza genes. The meeting supported the principle of 'One Flu'. There was a need for any such an initiative to highlight the importance and benefits for both animal health and public health. The initiative should be a collective effort and should be sustainable. More practical details are needed.

Action: 'One Flu' concept paper to be sent to OFFLU Secretariat and then disseminated to the OFFLU experts for comment.

Recommendation: 'One Flu' should be taken forward, initially, as an OFFLU initiative.