



Meeting of the OFFLU Applied Epidemiology Technical Activities

Paris, 2 September, 2008

Dr. Bruckner welcomed the group on behalf of the OIE Director General. He explained the role of the OIE Ad hoc groups and stressed the need to avoid overlapping of objectives, in particular between the OIE Ad hoc group on epidemiology and the OFFLU Applied Epidemiology Technical Activity. The results of this meeting will be reported back to the OFFLU Steering Committee; coordination with the OIE Ad hoc group on epidemiology should also be ensured. All OFFLU Technical Activities must avoid duplication with existing structures and mechanisms in OIE and FAO.

SCOPE OF WORK FOR THE OFFLU APPLIED EPIDEMIOLOGY GROUP:

It was agreed that the scope of work should include all avian influenza viruses and not only highly pathogenic avian influenza H5N1. The work should be developed taking into consideration the span of the OFFLU network and its inherent limitations to carry out operational activities. Therefore, it was agreed that the strength of the group should be to coordinate activities and provide advice.

The OFFLU Steering Committee is the ultimate customer of the OFFLU Applied Epidemiology group, and is the decision making body of OFFLU. The Executive Committee is the OFFLU operational body that works closely with the Steering Committee. The Executive Committee will coordinate the scientific activities of the OFFLU network and communicate relevant issues to the Steering Committee. Communication between FAO and OIE is active within each of these bodies. The Applied Epidemiology group will conduct activities on its own initiative, with the agreement of the Steering Committee, and could also receive requests from OIE and FAO.

OBJECTIVES:

- 1) Review of the epidemiological efforts addressing surveillance and control of avian influenza

Compile a list of projects related to avian influenza surveillance and control to provide a broad overview of ongoing activity. Outputs, experiences and lessons from some of these projects may meet the objectives of OFFLU.

This activity will help to identify gaps in understanding the spread of the disease and allow for integration of results from molecular analysis with epidemiological analysis. In addition, this will contribute to improving coordination between all agencies involved, identify synergies and avoid duplication of efforts. It will also help to identify and promote successful approaches that could be adapted to other regions. The emphasis of the list should be on those projects that can have practical outcomes in terms of control implementation, strategy and policy.

2) Provide advice on disease control strategies, disease surveillance and risk analysis

At the request of the Steering Committee the group can provide recommendations on appropriate disease control measures, taking into consideration diversity of circulating strains, their dynamics and spatio-temporal patterns. Differences in production systems, surveillance data and available veterinary infrastructure will be considered when developing these recommendations. Publicly accessible PVS reports should be reviewed to understand infrastructural challenges.

In addition, the group will use information available to OFFLU to support retrospective analyses on the evolution and spread of strains. These analyses will need to be combined with other epidemiological analyses conducted by other groups, including those of OIE and FAO.

3) Support investigation of significant events and trends identified through OIE and FAO (GLEWS/OFFLU laboratory network)

The group, on its own initiative or at the request of the parent organisations, can support analysis of significant events and trends related to the occurrence of avian influenza. Joint analysis with other groups working on the epidemiology of HPAI, especially those from OIE and WHO, will be promoted. To facilitate the task, an electronic forum for discussion will be created where papers, data and discussion items can be posted and made available to the rest of the members.

4) Molecular epidemiology

Through the OFFLU Scientists the group will:

- Encourage sharing of geo-referenced isolate data for the purpose for further analysis (e.g. Indonesian project)
- Support analysis of circulating strains at the regional level (e.g. Bangladesh-India)
- Cooperate with the vaccine quality assurance group to provide recommendations on the selection of appropriate vaccine strains, based on the analysis of the diversity of strains

5) Explore available options for linking epidemiological and sequence data and propose recommendations

There are several publicly available databases and software tools that can be used for the analysis of avian influenza molecular and epidemiological data. However, it is difficult to visualise this data together in a single tool showing temporal and spatial distribution as well as molecular changes.

The group will compile a list of publicly available tools that may allow for synthesis of molecular and epidemiologic data.

ACTIONS:

- 1) Identify a strategy for compiling a list of projects aimed at HPAI H5N1 surveillance and control strategies focused initially on affected regions in Eastern Europe, Africa, Middle East, and Southeast Asia
 - Who to contact
 - i. FAO and OIE regional representatives, OIE, Donors, Universities

- ii. Regional Animal Health centers (OIE/FAO) – Bamako, Beirut, Botswana, Nairobi, Tunisia
 - o Develop a template to collect the information needed from each project – name, country(s), objectives, outputs, duration. (Cristobal Zepeda)
 - o Draft official request letter of request for information from OIE/FAO (OFFLU). (Keith Hamilton)
- 2) Electronic forum for applied epidemiology group
 - o Explore options including OIE IT section and other existing channels such as Flu-Lab-Net (Keith Hamilton/Bhudipa Choudhury).
- 3) Develop phylogenetic trees with downloadable sequences based on the HA1 avian viruses representing the unified clades on the offlu site generated from publicly held data (Mia Kim/Bhudipa Choudhury to prepare and send data for review. As much as possible, data should be geo- and time-referenced)
 - o H5N1 unified clade “reference” tree – identify representative strains, procure input from experts (include % homology table, interpretation, and appropriate caveats)
 - o H5N1 “snapshot” of current viruses (include % homology table, interpretation, and appropriate caveats) – encourage sharing
- 4) Develop a list of publicly available tools available to allow for synthesis of sequence and epidemiologic data and evaluate fitness for purpose (Mia Kim/Bhudipa Choudhury/Preben Willeberg)

Explore the use of other databases including Bioportal (developed by the University of California, Davis) as a potential tool. (<https://fmdbioportal.ucdavis.edu>, username: Denmark, PASSWORD: avianflu)

Annex 1: Agenda:

1. Welcome and introductions
2. Appointment of Chair and Rapporteur
3. Adoption of agenda
4. OFFLU objectives, and Terms of Reference for OFFLU Technical Activities
5. Introduction of OFFLU Scientists and an update on their work areas
6. Develop objectives and Terms of Reference for OFFLU Applied Epidemiology Group
7. Discussion – proposals for OFFLU applied epidemiology group activities
8. Work program priorities for 2008/2009
9. Discussion – review of available epidemiological and molecular databases for avian influenza viruses
10. Any other business

Annex 2 : List of Participants

Dr Cristóbal Zepeda Sein

Coordinator of International Activities,
Centers for Epidemiology and Animal
Health

OIE Collaborating Center for Animal
Disease, Surveillance Systems and Risk
Analysis

USDA-APHIS-VS-CEAH

2150 Centre Ave, Building B

Fort Collins, CO 80526-8117

UNITED STATES OF AMERICA

Tel.: (1-970) 217.85.87

Fax: (1-970) 472.26.68

crisobal.zepeda@aphis.usda.gov

Dr Bhudipa Choudhury

OFFLU Scientist

VLA weybridge

Tel: +44 1932 34 11 11

b.choudhury@vla.defra.gsi.gov.uk

Dr Stephane de La Rocque

EMPRES / Animal Production & Health
Division (AGAH)

FAO

Viale delle Terme di Caracalla

00100 Rome

ITALIE

Tel: +(39-06) 3465 010 392

Fax: +(39-06) 5705 5740

stephane.delarocque@fao.org

Dr Gideon Bruckner

Deputy Director General (Animal Health
and International Standards)

12 rue de Prony

75017 Paris

FRANCE

Tel: 33 - (0)1 44 15 18 88

Fax: 33 - (0)1 42 67 09 87

g.bruckner@oie.int

Dr Keith Hamilton

OFFLU Coordinator

12 rue de Prony

75017 Paris

FRANCE

Tel: 33 - (0)1 44 15 18 88

Fax: 33 - (0)1 42 67 09 87

k.hamilton@oie.int

Dr Mia Kim

OFFLU Scientist

FAO

Viale delle Terme di Caracalla

00100 Rome

ITALIE

Tel: +(39-06) 570 540 27

Fax: +(39-06) 5705 5740

Mia.Kim@fao.org

Dr Lea Knopf

Recognition of countries' animal disease
status

Scientific and Technical Department
OIE

12 rue de Prony

75017 Paris

FRANCE

Tel: 33 - (0)1 44 15 18 88

Fax: 33 - (0)1 42 67 09 87

l.knopf@oie.int

Dr Stefano Marangon

Istituto Zooprofilattico Sperimentale
delle Venezie (IZSe)

Viale dell'Università 10

Legnaro, Padova 35020

ITALIE

Tel: +39 049 808 43 91

Fax: +39 049 883 0046

smarangon@izsvenezie.it

Prof. Dirk Pfeiffer

Royal Veterinary College

Hawkshead Lane

North Mymms

Hatfield

Hertfordshire AL9 7TA

ROYAUME-UNI

Tel : +44 1707 666 205

Fax : +44 1707 666 574

pfeiffer@rvc.ac.uk

Dr Preben Willeberg

Center for Animal Disease Modelling and
Surveillance

School of Veterinary Medicine

University of California Davis

California 95616

USA

Tel: (1-530) 752.0336

Fax: (1-530) 752.1618

pwilleberg@ucdavis.edu