



REPORT OF THE COMBINED MEETING OF THE OFFLU STEERING AND EXECUTIVE COMMITTEES

Paris, 27– 28 October 2014

On 27 and 28 October, 2014, the combined OFFLU Steering Committee and Executive Committee met at OIE Headquarters to develop a strategic agenda and implementation plan.

In attendance were Bernard Vallat, Juan Lubroth, Elizabeth Mumford, Brian Evans, Keith Hamilton, Gwen Dauphin, Gounalan Pavade, Filip Claes, David Swayne, Kristein van Reeth, Giovanni Cattoli, Billy Karesh, Ian Brown and Peter Daniels. Apologies were received from Gerrit Viljoen.

Dr Vallat opened the meeting. He noted that OFFLU was created in 2005 in response to the then new international threat from the emergence of H5N1 highly pathogenic avian influenza as a dangerous zoonosis with pandemic potential. Zoonotic influenza with pandemic potential remains one of the major concerns of the Tripartite of FAO, OIE and WHO, along with rabies and antimicrobial drug resistance. He encouraged OFFLU to maintain its momentum with increasing advocacy and highlighting its achievements. He noted that these included increasing engagement with the animal health sector, the development of mechanisms and systems for disease management, rather than just tools; the delivery of key advice, such as in response to the H1N1 2009 situation, and the inclusion of swine and equine influenza infections within the scope of OFFLU.

The meeting was encouraged to identify the big challenges, the changing threat environment and new strategies for the future. Dr Vallat suggested considering the issue of antimicrobial drug resistance and how effective prevention of influenza infections in pigs may reduce the use of antimicrobials for secondary bacterial respiratory infections. Management of the risk of pandemic influenza from an animal source is an ongoing challenge, and the relationship with the WHO, and especially the contributions to the vaccine strain selection process, should develop to meet any newly arising situations. Ongoing OIE support for OFFLU was emphasized, including the continued willingness to support the Secretariat.

Dr Gwen Dauphin, on behalf of the FAO Chief Veterinary Officer Dr Juan Lubroth, also noted the concern regarding zoonotic influenza as a stimulus for the forming of OFFLU. The definition of the boundary between OFFLU activities and areas of responsibility and those of the parent organizations remains a point of discussion at times, especially for FAO with its large portfolio of influenza activities. In general FAO sees OFFLU as a global network of expertise rather than having responsibility for operational matters in partnership with individual countries. FAO acknowledges the value of OFFLU and appreciates the nice combination between two prominent international organisations with animal health responsibilities and the influenza scientific community. FAO will continue supporting the network, through human resources (OFFLU liaison officer and scientist) and funding for meetings from its influenza allocation. The securing by OFFLU itself of modest funding for

reagent development in support of VCM participation was noted as a positive development. FAO reaffirmed its wish to continue to provide technical inputs to OFFLU such as the coordination of the VCM preparation, the emergency communications, the compilation of protocols/cleavage sites, etc. FAO supports this meeting and will try to integrate as much as possible the OFFLU priorities in the FAO's future work plan and budget.

The meeting noted that the global situation with respect to influenza in animals was still of major concern. Zoonotic H5N1 HPAI is still endemic in 10 countries, including in South, Southeast and East Asia which together are home to 55.49% of the human population and 54.26% of the poultry population globally. The H5 strain continues to drift antigenically, creating challenges for effective vaccination, and is now giving rise to new reassortant viruses such as H5N8 and H5N6 which are being transmitted across national boundaries. H5N6 is a zoonotic strain with one human fatality reported so far. This HPAI situation has severe negative implications for food security, livelihoods, commerce and trade internationally. The emergence of another dangerous zoonotic avian influenza, H7N9 in China, is also creating similar challenges. Novel recombinant influenza strains have been reported in pigs in all continents where pigs are farmed, and again zoonotic concerns are resulting in food security and commercial concerns which have to be managed. Equine influenza remains the biggest challenge to the movement of horses internationally for commercial and recreational purposes, with concerns regarding the ongoing efficacy of available vaccines. An influenza strain from horses has become established in the canine population and cats are known to be susceptible to infection. The implications for the management of influenza globally are unclear.

The meeting also noted with concern that funding for influenza control internationally from funding bodies had decreased, and that current indications are that funding will be a challenge for both OFFLU operations and for influenza control.

The approach adopted by the meeting

The agenda for the meeting (Attachment 1) outlined the stages in the process to be worked through by the group. Guidance on the intended process circulated to participants prior to the meeting stressed that the output of the consultation should be decisions on activities to be progressed, and not a document as a primary output.

To provide a framework for its deliberations the meeting adopted the approach of firstly reconfirming the enduring purposes of OFFLU, that clearly form the *raison d'être* of the network. This was within the context of a discussion of who are the beneficiaries and which of their needs are to be met. The objective was to develop a shared understanding of what was in scope for OFFLU, both routine and aspirational, and areas of potential activity that were probably not in scope for one reason or another, or of lower priority.

Given the array of agreed higher priority purposes the question was posed as to what strategic outcomes would lead to OFFLU still being hailed as successful in 7 to 8 years time. If OFFLU is still considered effective in this time frame, what new benefits will it have delivered? What will success look like? Through this process seven areas of strategic intent were agreed. Again a mix of core business and more aspirational outcomes was canvassed.

The meeting then considered the implications of committing to this framework of strategic intents in terms of available resources, access to capability, operational structures of OFFLU

and other gaps and opportunities in each case. It was agreed that implementation would require identification of the immediate actions required, starting now, and the first round of deliverables that should be expected in a eighteen month to two year time frame.

An implementation plan was developed accordingly, creating a strategic agenda to be implemented and overseen by the Executive and Steering Committees respectively. (Detailed work plans will have to be developed in each case.)

The applicability of the wording in the OFFLU vision and objectives as currently written was assessed in light of the newly developed strategic agenda, noting such documents are more a communications tool. The success of the OFFLU will lie in the effectiveness with which it implements its strategic agenda. It is therefore important to consider the achievability of the strategic objectives.

Discussion 1: The purposes, or agreed higher priority areas of activity, of OFFLU

The meeting was conducted with the agreed understanding that the overarching purposes of OFFLU are as stated in the OFFLU vision, that the animal health community will provide early recognition and characterisation of emerging influenza viral strains in animal populations, and effective management of known infections, thereby better managing the risk to human health (especially the risk of pandemic influenza) and supporting global food security, animal health and welfare, and other community benefits derived from domestic animals and wildlife.

Within this overall context, in its discussion of the reasons for maintaining OFFLU the meeting initially utilized a concept wherein activities and proposed activities were assessed in terms of both ambition and capability. Ideally an organization will be ambitious, seeking to meet the big challenges that may be expected to emerge, while at the same time being matched to the capability available, or that could reasonably be developed in response to the challenge.

Conversely an organization should have a clear concept of activities in which it will not become involved. The affiliation with OIE and FAO was seen as strength for OFFLU, even though a consequence is that OFFLU does not have a legal status and will not independently manage funding. Hence it was not seen as a purpose of OFFLU to be a funder of research, for instance. Nor was it seen as an appropriate purpose of OFFLU to function as a scientific society with a paying membership and elected committees, since the influenza field is well served by such societies.

It was agreed that OFFLU is not a standards setting body, such as the OIE, or a development assistance organization, such as the FAO, but is to be seen as a valuable source of knowledge of influenza in support of such activities.

a. There was strong support for OFFLU having as a major purpose to be an authoritative source of knowledge on influenza in animals globally. The beneficiaries of such specialist knowledge would include the OIE, FAO and WHO, regulatory authorities in Member Countries and all stakeholders with an interest in the food security value chain such as farming entities, livestock traders, poultry and pork product processors and marketers and the public who would also benefit from a reduced risk of pandemic influenza. Other beneficiaries

would be owners of companion animals and horses, the equine sports sector and individuals and entities with interests in wildlife.

OFFLU has been acknowledged particularly for its *ad hoc* technical advice in response to emergency situations such as the emergence of pandemic H1N1 2009 and H7N9 avian influenza. A high priority purpose of OFFLU is to deliver technical advice in new influenza situations. OFFLU should maintain response systems accordingly.

b. There was strong support for OFFLU maintaining the purpose of being an effective laboratory network, nurturing the diagnostic skills for the detection and characterisation of influenza infections in all major affected species and situations.

This would include accompanying quality assurance strategies, other aspects of laboratory management relating to working with influenza viruses, and the conducting of proficiency testing for the more important test methods.

In addition to engaging the relevant expertise within OIE and FAO Reference Centres OFFLU should also engage other laboratories (which are not designated Reference Centres) to ensure that it has a wide global coverage. OFFLU should fulfil the purpose of being a Reference Laboratory network as required under the OIE and FAO mandates for such designated centres.

c. A related but separately stated purpose was to promote and ensure the sharing of influenza information and biological materials among the designated FAO and OIE Reference Centres and other OFFLU members. There has not been as much progress in this matter as might be considered ideal and there was value seen as maintaining this as a separately stated purpose.

d. The meeting noted that there has been ongoing activity in the development of databases for the collection and curating of genetic sequence information for influenza viruses, and that such activities benefit from specialist knowledge of the agents for which systems are developed.

OFFLU should be a valued source of advice where ever systems and standards are developed for the collection, annotation, curation and dissemination of data relating to influenza strains from animal sources. OFFLU does not see a role in developing or maintaining such databases itself.

e. Surveillance of animal populations for transmission of both known and new or emerging strains of influenza is less than optimal and ***a clear purpose for OFFLU is to promote more effective surveillance (smarter surveillance) with well-defined objectives.***

f. One challenge to surveillance is the continuing inability to scientifically predict whether any particular influenza strain is of major animal or public health concern. Several risk assessment strategies have been investigated in recent years, such as by CDC (IRAT) and EFSA (FLURISK), and these and less structured approaches continue. However because the determinants of risk are not fully understood and surveillance data is not complete, there are significant challenges to reliable risk assessment. ***OFFLU should provide expertise to efforts and activities to improve scientific approaches to influenza risk assessment.*** Concurrently OFFLU should promote research to provide the scientific basis for risk assessments.

g. OFFLU has developed and reviewed recommendations for research into animal influenzas. ***OFFLU should continue to identify knowledge gaps in the prevention, detection and control of influenza for animal health, food security and for public health preparedness, and update the influenza research agenda accordingly.*** OFFLU should promote the research agenda as a means to encouraging and coordinating priority research.

h. OFFLU has played a leading role in assessing the efficacy of available AI vaccines for H5N1 HPAI control, pioneering the application of antigenic cartography to poultry vaccines. This approach is also used, in combination with traditional or direct analyses of the HI data, to analyse antigenic requirements for equine influenza vaccines. An important role for ***OFFLU is to regularly review guidelines for veterinary vaccines and vaccination strategies, and to make similar information available for public health purposes.***

Discussion 2: What will a successful OFFLU have contributed by 2021?

Following on from the discussion of the range of expectations on which OFFLU should focus the meeting then conceptualized high priority areas of strategic intent, delivery against which would reasonably lead to OFFLU's being considered successful. The time frame for delivery was nominated as 7 to 8 years. The question was posed: what outcomes will lead to OFFLU being hailed as a winner in the animal health sector in that time frame?

Continuing the approach of balancing the desire to achieve ambitious outcomes against realistic expectations of capability to deliver, the meeting also discussed the implications of committing to nominated outcomes, in the process identifying gaps, opportunities and potential success factors as appropriate. These contributing considerations are included in the next section of this report so that the list of areas of strategic intent identified may be clearly listed.

Areas of strategic intent identified included:

- A. OFFLU will be regularly consulted by a wide range of stakeholders as a leading source of knowledge on influenza infections in animals (including wildlife)
- B. OFFLU will maintain and refine its core expertise as a network of influenza laboratories (all major affected animal species), keeping abreast of new laboratory technologies and the diagnostic implications of evolving influenza strains, updating diagnostic capability, sharing experiences in real time and supporting capacity building
- C. OFFLU will participate in existing and future international efforts to develop more standardized processes for capturing, storing, quality assuring and analysing molecular data together with the corresponding epidemiological, clinical and other relevant data (eg virological, antigenic)
- D. OFFLU will promote the making of informed decisions concerning antigens to include in both routine and emergency vaccines against influenza viruses of animal origin for use in veterinary and public health applications, and maintain systems for developing such advice

- E. OFFLU will promote, and through its advocacy and technical advice see achieved, more comprehensive, targeted, efficient, and effective (smarter) surveillance for influenza infections in animal species, working under the OIE and the FAO and interacting with veterinary authorities and the farming, wildlife, companion animal, and equine sports sectors to achieve this outcome
- F. OFFLU will be an active partner in multidisciplinary collaborations to develop and promote effective methods of disease control based on an improved understanding of socioeconomic factors and value chains to reduce the burden of H5N1 HPAI and prevent circulation of new strains
- G. OFFLU will promote the science to identify which animal influenza viruses pose a risk to animal health and public health, and close the knowledge gaps limiting effective animal influenza control

Discussion 3: What are the Opportunities, Implications, Constraints and Gaps that can be identified relating to each of the Areas of Strategic Intent, and what will therefore be the actions that must be taken now, within a 6 month time frame, and in the immediate future, within a 2 year time frame, to deliver on these strategic areas?

A. RE: OFFLU will be regularly consulted a wide range of stakeholders as a leading source of information on influenza infections in animals (including wildlife)

1. Opportunities: To make OFFLU one stop shopping on global information concerning animal influenza
 - a. The OFFLU website will be a source of timely information regarding important developments on influenza in animals (new strains, antigenic data, diagnostic reagents, surveillance, vaccination, other control measures, research objectives, meetings, opinions, guidance)
 - b. OIE, FAO, WHO will automatically approach OFFLU where ever inputs on animal influenza are required for their various organizational purposes
2. Implications, Constraints and Gaps:
 - a. Need stronger engagement, with a better flow of information and participation, from certain member countries, particularly in endemically affected regions
 - b. Need financial, intellectual and organizational support and resources to collect, manage and analyze information for posting on the website, for communication with OFFLU members to inform of development of OFFLU work plans and for wider dissemination as appropriate
 - c. Need to crosslink useful animal influenza information among OIE, FAO and other organizations websites, information systems and publications
3. Work Plan:
 - a. 6 month:
 - EC to communicate with OFFLU Website working group to revise OFFLU Website structure to develop highlighted links to current animal influenza information and make locating of information in pull down menus more customer focused/friendly

- Have OFFLU secretariat manage the website information update with input from OFFLU scientists and EC
- b. 2 year:
- A strategy for receiving information updates from OFFLU member countries/institutions to have been developed and initiated, that may utilize existing FAO and/or OIE structures in the first instance, EC to lead
 - Detailed discussions to be held within SC and EC to propose a process to designate institutions or people within countries as OFFLU correspondents with clear expectations and communication channels and timelines, with discussion with FAO and OIE to avoid duplication

B. RE: OFFLU will maintain and refine its core expertise as a network of influenza laboratories (all major affected species), keeping abreast of new laboratory technologies and the diagnostic implications of evolving influenza strains, updating diagnostic capability, sharing experiences real time and supporting capacity building in all countries.

1. Opportunities: Continue to build on the past 10 years' successes of a functional OFFLU laboratory network;
 - a. Restructure and realign OFFLU activities with respect to fit-for-purpose diagnostic test development, validation; proficiency testing/ring trials and sharing of experiences
2. Implications, Constraints and Gaps:
 - b. OFFLU was initially an AIV activity, but now has a structure with swine, equine and wildlife specialist groups. However some aspects of diagnostics are cross cutting, while others are specialized. Processes are needed to ensure harmonization of common diagnostic issues across species groups
 - c. This will include developing processes for more technical cross talk, resulting in alignment and avoiding duplication
 - d. Similarly discussions and a plan will be needed to incorporate existing separately managed activities such as standards development, laboratory biosafety, capacity building and ring testing into a consolidated diagnostic activity
 - e. As OFFLU has as its core the influenza Reference Centres of the FAO and the OIE these organizations would logically call upon OFFLU for their requirements for advice on matters relating to influenza in animals.
3. Work Plan
 - a. 6 month:
 - EC to reorganize the technical activity (TA) to bring several past successful TAs such as proficiency testing, biosafety and capacity building under single coordinated diagnostics TA with redefined points of reference, discussion groups for specific topics and a work plan
 - Re-examination of primer and probe designs for HA and NA across major areas of Asia for confirmation of effective fit-for-purpose design given emergence of new subtypes or changes in older subtypes
 - On the basis of the decision in the above item OFFLU to propose to the OIE any recommended modifications to the AI Chapter in the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*

b. 2 year plan

- Harmonization of diagnostic tests for influenza viruses within and between countries to meet fit-for-purpose requirements of individual tests and continued detection of emerging or diverse viruses within countries and between countries (How will this be done, and by whom?)
- OFFLU to advocate whole genome sequencing as a minimum standard for characterization of animal influenza virus strains (but not all isolates) and the provision of such data into reports of new outbreaks to the OIE and FAO and the lodging in global sequence databases
- In line with the standards and recommendations of the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* define recommendations for required standard reagents for influenza tests including reference antisera, reference antigens and standards for molecular tests, and have a costed work plan for their production
- The diagnostics TA will coordinate the designated reference labs (in the first instance) to develop harmonized procedures for the routine evaluation and upgrading of molecular tests as fit for purpose given genetic changes in influenza virus populations, in line with accepted standards of validation and verification.
- The diagnostics TA will work with the proficiency testing discussion group to develop a structured, tiered proposal for the delivery of PT among the designated reference centres, regional and national laboratories and nationally networked laboratories within countries for influenza tests important in the global surveillance and control of influenza in animals.

C. OFFLU will participate in existing and future international efforts stimulate development of more standardized processes for capturing, storing, quality assuring and analysing molecular data together with the corresponding epidemiological, clinical and other relevant data (eg virological, antigenic)

1. Opportunities: Under OIE and FAO and partnering with WHO assist in establishing guidance relating to influenza viruses for genetic data collection, storing, quality assuring and analysis as well as metadata acceptance
 - a. OFFLU has separately agreed to advocate that whole genome sequences should become the standard for reporting of new outbreaks of influenza virus infection in animals
 - b. FAO has established the genetic module of Empress-i
 - c. OIE has a pilot project to examine its role in receiving and managing sequence information in reports of animal disease outbreaks
 - d. There will be a need for influenza specific advice
2. Implications, Constraints and Gaps:
 - a. There are also numerous initiatives internationally for storing and curating sequence and related data for both influenza and for genomes more generally, with which animal health initiatives might wish to align
 - b. To be contributing advice to existing and new database initiatives OFFLU will need access to appropriately qualified scientific resources, such as has been available in the past through the OFFLU scientists
 - c. Both FAO and OIE recognize the need for leadership in such activities where there are animal health considerations

- d. WHO has also been active in development of standards for molecular data collection relating to human influenza strains and their analysis as well as other metadata, but OFFLU has not consistently engaged with these efforts
 - e. OFFLU does not have a role as a database manager, but has a role in advising on the development of standards relating to collection, reporting, curating and analysis of data relating to animal influenza
 - f. OFFLU needs access to such data to fulfil its other purposes, and hence needs to retain access to competent resources which it can deploy on demand as required
3. Work plan
 - a. 6 month
 - SC to discuss with FAO, OIE and WHO their plans relating to management of genetic sequences from influenza viruses isolated in animals and about OFFLU contributing a point of contact to database standardization and development including linking metadata (epidemiology, pathobiology, etc.)– possibly an OFFLU scientist responsibility
 - EC in next 6 months to consider the need for an overarching TA of molecular virological expertise with a designated leader who will be point of contact for management of sequencing information and develop the terms of reference needed for this group. This group will be the immediate point of contact for the OFFLU scientist giving support in this area
 - b. 2 year
 - To be decided, pending outcomes from the activities in the section 3.a work plan above

D. OFFLU will promote the making of informed decisions concerning antigens to include in both routine and emergency vaccines against influenza viruses of animal origin for use in veterinary and public health applications, and maintain systems for developing such advice

1. Opportunities. OFFLU has the experience and the opportunity to provide international leadership in determining the appropriate antigenic composition of vaccines for management of influenzas of animal origin.
 - a. For the past 5 years OFFLU has collected and analyzed genetic and antigenic data relating to zoonotic avian influenza viruses and provided such information twice yearly to WHO to support decisions concerning vaccine seed strains for zoonotic avian influenza threats
 - b. In some H5N1 endemic countries OFFLU has provided support to projects including capacity building to allow selection of relevant antigens for inclusion in poultry vaccines
 - c. The OIE equine influenza expert surveillance panel, now incorporated within OFFLU, has for many years made such recommendations for vaccines for equine influenza
2. Implications, Constraints and Gaps
 - a. To capture the synergies between the work done for the WHO process and the outputs applicable to poultry health OFFLU should redefine the internal working arrangements for its team contributing to WHO and a new Avian Health vaccine TA

- b. There is a need to improve on timeliness of generation of antigenic data and use best science to make vaccine antigen recommendations to WHO.
- c. Avian influenza vaccine recommendations will need additional data input (e.g. antigenic data with chicken sera and chicken vaccination/challenge data) to those currently utilized for WHO VCM participation. This suggests a need of a slightly expanded group to accomplish avian influenza vaccine recommendations.
- d. The EIV TA make recommendations for vaccine antigens for horses thus the need initially is to concentrate on the avian component, to establish proof of principle for avian influenza vaccine recommendation activity
- e. Sensitive issues of negative reports concerning commercial vaccine seed strains and push back from companies will have to be managed
- f. The number of isolates submitted to reference labs from infected countries has decreased in recent years, thus there is a need to boost submission numbers of H5/H7 viruses from endemic countries
- g. Continuing access to the OFFLU scientists is necessary: duties include coordination of data collection, analysis of information and handling the information platform for VCM and avian influenza vaccine recommendations
- h. It is essential in encouraging submission of data and isolates that OFFLU be perceived to be a neutral platform
- i. Contributors need to receive some return or recognition for sharing data, such as an outcome of vaccine seed strains for animal influenza, to encourage participation
- j. A strategy of designating OFFLU “designated reference centers” for processing /analyzing genetic and antigenic data for vaccine strain selection has been raised for consideration (Question. Would the OIE and FAO designated ref centres be sufficient for this purpose?)
- k. There is a need to engage laboratories that are not such OFFLU network reference labs to submit isolates and data to increase the global coverage

3. Work plan

- a. 6 month
 - EC re-define Vaccination TA to include both WHO VCM activity and add a new avian vaccine strains selection group.
 - Re-define the terms of reference within this Vaccination TA to maintain and improve on twice yearly contributions to the WHO VCM process
 - EC/SC in consultation with OIE and FAO to develop a strategy to disseminate genetic and antigenic information on animal influenza viruses including avian influenza, SIV and EIV outcomes
 - SC to discuss with OIE/FAO the need to continue the position of the OFFLU scientist to coordinate collection and analysis of avian influenza genetic and antigenic data
 - Develop terms of reference for Avian Influenza vaccine strain selection within the Vaccination TA and output of first avian influenza strain selection activity
- b. 2 year
 - Vaccination TA to harmonize protocols for ferret antisera production and for HI serological testing to better meet the needs of influenza vaccine strain selection activities, with the reagents designated fit for purpose for distribution to labs engaged in analysis of H5/H7 samples
 - Systems of developing and sharing reagents will have been resourced

- SC to explore with FAO/OIE funding sources to increase resources to laboratories to increase participation and available data

E. OFFLU will promote and through its advocacy see achieved more comprehensive, effective, efficient and targeted (smarter) surveillance for influenza infections in animal species, working under the OIE and the FAO and interacting with both veterinary authorities and farming, wildlife, companion animal and equine sports sectors to achieve this outcome

1. Opportunities: OFFLU expertise will contribute to a much improved situation globally to be able to detect and monitor influenza strains present in animal populations
 - a. Effective surveillance is needed for early detection and rapid control of any animal influenza and its economic and public health impacts.
 - b. A more active knowledge of influenza in animals and humans would lead to more effective analyses of emerging situations that have either animal production or public health significance.
 - c. New strains of influenza viruses emerge through genetic mutations and reassortment and may lead to strains that are able to evade population or vaccine immunity. Some influenza strains cross species barriers within animal populations, some cross from animal populations to human populations and some cross from human populations to animal populations. More effective surveillance combined with a better understanding of risk factors may detect changes in antigenic structure and genetic structure in a more timely fashion prior to their being associated with changes in epidemiology or pathogenesis in animals or people.
 - d. Smarter surveillance is required, not necessarily more intensive surveillance.
 - e. A broader opportunity is noted, to look for opportunities to combine animal influenza surveillance with surveillance for other diseases. This would optimize the related costs and it will make the surveillance more cost-effective and attractive where animal influenza is not financially important. Such an approach would be strategic for a smarter surveillance
2. Implications, Constraints and Gaps
 - a. There are limited resources globally to accomplish animal influenza surveillance, with existing deficiencies in animal influenza surveillance capacity in both developed and developing countries.
 - b. Consequently there is a need for more stakeholder engagement and inputs, and more effective advocacy for surveillance.
 - c. There is also a need for more strategic targeted surveillance with well-defined objectives.
 - d. Surveillance strategies should be cost effective. There is great variety in animal farming systems, ranging from modern intensive to emerging intensive farming systems to various types of traditional and smaller holder operations. A single surveillance strategy is unlikely to be appropriate in multiple farming situations.
 - e. Surveillance is important in all animal species and management systems.
 - f. There is limited scientific ability to fully understand *a priori* the risk any single influenza strain poses to animal or human health, and hence there is difficulty in developing clear regulatory responses to findings of surveillance.

3. Work Plan:
 - a. 6 month:
 - SC to reformat the Epidemiology TA and its terms of reference, thereby creating new expertise within OFFLU
 - EC to task the Epidemiology TA with developing guidelines on smarter, more strategic, cost-effective, targeted surveillance strategies and to build on the OFFLU Surveillance Strategy
 - b. 2 year
 - Working through FAO and OIE structures and established lines of communication, OFFLU to be an effective advocate for more effective surveillance and to be engaged in the international debate on this topic
 - The new OFFLU Epidemiology and Socio-economics TAs to be generating new concepts and discussion points to contribute to effective advocacy for more effective surveillance

F. OFFLU will be an active partner in multidisciplinary collaborations to develop and promote effective methods of disease control based on a better understanding of socioeconomic factors and value chains to reduce the burden of H5N1 HPAI and prevent circulation of new strains

1. Opportunities: If OFFLU is to be more than just a laboratory network it must be an active partner in addressing the big influenza challenges globally and so incorporate the skills and expertise that will allow it to fulfil its intended role.
 - a. Analyses by FAO and others indicate clearly that failure to control or eradicate zoonotic avian influenza from endemic countries is not due to lack of laboratory capacity or scientific expertise. Rather it is more due to a mix of factors around effectiveness of regulatory agencies in managing traditional value chain behaviours and socio-economics.
2. Implications, Constraints and Gaps
 - a. Eradication of H5N1 HPAI has been limited by poor understanding of socioeconomic and value chain aspects of poultry production and distribution in endemic countries
 - b. Limits on understanding production systems prohibits development of effective intervention strategies that might control H5N1 HPAI
 - c. OFFLU has not been strong in such expertise but following the joint OFFLU/STAR-IDAZ research agenda meeting OFFLU adopted policies of rejuvenating its Epidemiology TA and creating a group within OFFLU to contribute socio-economic expertise
 - d. Identification of future contributions that OFFLU can make to influenza control will be guided by the contributions of these groups working together with the more established skills base within the organization
3. Work plan
 - a. 6 month –
 - SC to ratify the establishment and ToRs of a new Socio-economics TA
 - EC to work with the new Socio-Economics TAs to develop strategies to inform OFFLU and develop OFFLU contributions to this sphere of activity
 - b. 2 year
 - To be decided, pending outcomes from the activities in the section 3.a work plan above

G. OFFLU will promote the science to identify which animal influenza viruses pose a risk to animal health and public health, and close the knowledge gaps preventing effective animal influenza control

1. Opportunities: OFFLU/STAR-IDAZ Research Agenda developed through a collaborative effort among influenza experts was completed in mid-2014 and is available for distribution and use
 - a. OFFLU is not a research funder *per se* and does not encompass the whole influenza research community, however by engaging its membership and external stakeholders it has demonstrated an ability to be able to set priorities for animal influenza research
 - b. OFFLU should continue to develop and promote a research agenda including active follow up
 - c. The challenge is to develop a strategy within the purposes and capabilities of OFFLU
2. Implications, Constraints and Gaps
 - a. Communication and usage of the Research Agenda within OFFLU has not been developed
 - b. A structured strategy within OFFLU for activating the Agenda and monitoring progress has not yet been developed. Such a strategy should involve funding agencies and researchers.
3. Work plan
 - a. 6 month
 - The SC/EC will identify 25 global and national animal health funding agencies and will distribute the research plan to these in next 6 months, accompanied by a covering letter advocating the urgent need for an influenza research strategy
 - b. 2 year
 - Research Agenda TA will conduct an annual update of the Research Agenda beginning in mid-2015

Discussion 4. Conclusions

The meeting agreed that the next steps should be consultation with the broader OFFLU membership, and the proposed OFFLU Technical Meeting to be held on 15 April 2015 in conjunction with the 9th International Symposium on Avian Influenza in Athens, Georgia, USA would be a useful opportunity.

After receiving and incorporating that feedback the Committees propose to develop a strategy document with work plan that captures the matters discussed above.

Attachment 1.

OFFLU Strategy Meeting

OIE HQ, Paris, 27 and 28 October, 2014

Agenda

Day 1

| | | |
|---------------------|--|-----------------------|
| 9.15 am – 10.00 am | Opening remarks | Dr Vallat, Dr Lubroth |
| 10.00 am – 10.30 am | Morning tea | |
| 10.30 am - 1.00 pm | Discussion: What is the purpose of OFFLU? <i>(A wide ranging discussion canvassing any conceivable possibility, which may lead to identification of new possibilities and a better understanding of the “boundaries” between OFFLU and the OIE and FAO, even WHO.)</i> | |
| | Output: a list of selected discussion points of which to consider the implications | |
| 1.00 pm – 2.00 pm | Lunch | |
| 2.00 pm – 3.30 pm | Discussion: If OFFLU is considered successful in 7-8 years time, what will have been achieved? <i>(Given the mornings discussions, if OFFLU is considered a success in the future, why? What will have been achieved? Can we imagine some potential achievements? With respect to flu? With respect to OFFLU itself?)</i> | |
| | Output: a list of selected OFFLU deliverables for further analysis | |
| 3.30 pm – 4.00 pm | Short Break | |
| 4.00 pm – 5.30 pm | Discussion: To deliver each of these achievements, what must we have done well? <i>(Backcasting rather than forecasting. If there is an improved management of influenza in animals, what will OFFLU have contributed? How will it have to have performed better than it does now? Or have we got it nailed, business as usual?) (Some say this is the heart of the whole process, and it does lead straight in to the next challenge, deciding what to do.)</i> | |
| Day 2 | | |
| 9.00 am – 10.30 am | Discussion: Recap on the outcome of day 1, explore any thoughts overnight relating to OFFLU purpose, imagined OFFLU successes, the implication of these for OFFLU operations. <i>(What does it mean, to have done these things well, that we discussed yesterday?)</i> | |
| | Outcome: the scene is set for the key part of the meeting, decisions | |
| 10.30 am – 11.00 am | Short Break | |
| 11.00 am – 1.00 pm | Discussion: Given the discussion to date, what decisions have to be made? What are we actually going to do? <i>(Remember the piece by McKinsey, the purpose of strategic planning is to arrive at decisions. What OFFLU must do now, have delivered in 18 months, to make the imagined successes achievable?)</i> | |
| 1.00 pm – 2.00 pm | Lunch | |
| 2.00 pm – Finish | Refinement of Discussion: Have we been sufficiently rigorous? Have we evaluated competitive strategies? Have we kept within the real of the possible, while stretching things beyond business as usual? Output: an action plan | |