

CASE STUDY

Author: Dr. Sok Touch, MBDS Regional Moderator, Cambodia

Community Resilience to Emerging Infectious Diseases

as part of local disaster risk reduction in Cambodia

Emerging diseases pose a most challenging threat to both the health system in the affected countries and the community at large especially when pandemic becomes a disaster. To cope with this situation, health and community system need to be reoriented to deal with a specific situation while being better prepared for similar threats or foreseeable conditions in the future.

Cambodia is affected by Avian Influenza in animal since 24 January 2004 with first human cases detected on 21 January 2005. There was a fluctuation in laboratory confirmed human cases of avian influenza A/H5N1 from 2005 until 2012 with a total of 21 cases with only 2 cases that survived. However, in 2013, a surge of human cases was observed with 26 human cases with 12 cases who survived.

The Royal Government of Cambodia has launched the National Comprehensive Strategic Plan for Controlling Avian Influenza in Cambodia in 2007 which involves the National Committee for Disaster Management (NCDM), the Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Ministry of Health (MOH).

Many awareness campaigns were conducted by the three main stakeholders and KAP survey reported by MAFF indicates that the level of awareness is quite high at 99.50%.

The lack of compensation is considered as main factor affecting the timely reporting of the diseases in poultry and this factor is compounded by the recurrence of similar diseases in poultry (Newcastle diseases) and Acute Respiratory Infections (ARI) especially in Under-Five Children.

This case study tries to identify an innovative mechanism to overcome these challenges of *animal disease reporting* and *disease impact in human both at*

individual and societal levels, based on socio-cultural context in Cambodia with the expectation that this approach can be replicated elsewhere through appropriate modification of key drivers.

A/ ANIMAL ASPECT:

It is estimated that there are 27.3 million of poultry in Cambodia of which 80-90% fall in family production system. The poultry is mostly for local breed and for family consumption with an average of 12-13 heads per family.

There are many diseases in poultry in Cambodia since a long time especially at the beginning of the rainy season. The most common one is Newcastle Diseases that used to decimate family poultry flocks on a yearly basis.

From the official confirmation of Avian Influenza AH5N1 in Cambodia in January 2004 to September 2013, there are 40 confirmed poultry outbreaks in Cambodia. The total culling is 28, 227 heads with the largest culling involved 2,533 and the smallest number is 3. On 6 occasions, culling did not occur.

There is no systematic policy for compensation on poultry culling in Cambodia and many stakeholders are considering different options to increase poultry and human disease reporting as financial concerns on the policy is perceived to hamper its timeliness.

As culling may encompass many villages, the Commune, the third- level administrative division in Cambodia after province and District and consisting of 3 or 30 villages is the most appropriate administrative structure to embed community *financial and administrative* structure for resilience. The Commune Committee for Disaster Management will be the *technical part* of the structure.

In Cambodia, there were a total of 1,621 communes and 14,073 villages according to the 2008 census.

It is worth noting that poultry outbreaks are mostly confined to provinces with high density of poultry per square kilometer.

To effectively control avian influenza in animals, an intensified awareness campaign was undertaken to support the control the disease at source through reporting of unusual sickness/death among poultry, wild birds and separating poultry species and from wild bird, new birds and living areas.

Public awareness campaigns by MAFF is through mass media, community theatre, public meetings, forums, marches, training for village animal health workers and village chiefs, school teachers, religious leaders, journalists and hotlines.

B/ HUMAN ASPECT:

As of March 2014, there are 56 laboratory-confirmed human cases of avian influenza in Cambodia involving only 14 out of 24 provinces.

Even though there is no specific time period of the year for the occurrence of severe respiratory infections making it difficult for parents and health staff to distinguish it from avian influenza infection, the *first four months of the year* have higher number of human cases. In this connection, a specific request by the Ministry of Health in its joint press release with WHO is for parents to tell health staff of any exposure of their children with dead or sick poultry in the previous week and for health staff to also ask this exposure if the patient experiences respiratory infections.

Once human to human transmission of avian influenza occurs, a pandemic influenza will entail and the rapid containment using a geographically based approach whereby both pharmaceutical and non-pharmaceutical interventions will be used most importantly within the first three weeks might be possible.

C/ ANIMAL-HUMAN INTERFACE:

The socio-economic cost of the pandemic influenza is enormous and its early detection is of critical importance to avoid a widespread harm and other social disruptions.

Even though there are village-level networks of animal and health volunteers for AI, anecdotal evidences showed that a closer network (same family) or even a

single network could be forged as poultry owners are also humans. They should comprehensively consider both animal health and their own health. The latter should prevail.

The alarming recurrence of human cases of avian influenza in Cambodia especially since 2013 is quite worrisome and calls for a timely reporting of suspected cases of AI in poultry as well as in humans. The current protractile situation may endanger both local and international community at large.

D/ PROPOSED SOLUTION:

As a tradition in Cambodia, there is a community mechanism to support community members that are in desperate need for instance for severely sick community members or funerals. The support is in cash or in kind and usually without any formal notification as there is an extended community network especially in rural areas.

As culling of poultry is not confined to the site of confirmed poultry disease, the farmers of the other villages or communes will be also affected and in line with the Government structure dealing with disasters including pandemic influenza preparedness, the Commune, District or Provincial Committees for Disaster Management are the suitable formal network to shoulder this mechanism of community resilience to EID if the financial cost could not be shouldered by the commune itself, especially when culling large scale poultry farms.

Moreover, there are other public forums linked to public holidays that will allow community members to be recognized for their adherence to good practices, sometimes sacrificing for the community and the region health and safety.

E/ DISCUSSION:

Based on the current local context for AI in Cambodia where human cases of AI are on the rise and bearing in mind the difficulty that underpin AI prevention and control, the following steps may be undertaken to support community resilience to EID including AI:

- 1- Awareness campaign highlighting the above aspects in animal and human sides
- 2- Set up a self-help financial contribution from the community that could be part of the commune council purview and/or the Commune Committee for Disaster Management. If the financial cost is more than the commune level, the higher level may be incurred.
- 3- Acknowledge the early reporting from the Community member or the first attending physician through public forums (issuance of certificates of good practice, best/model farmer(s)/physician(s) of the month...)
- 4- Provide other appropriate incentive to the champion in early reporting or early care seeking behavior.

The mechanism of community resilience can be extended to other emergencies in the community to ensure its sustainability and this might include other catastrophic conditions such as fire, storms or deaths.