



Summary of Set up and Piloting of National “166” Hotline



**Implemented by: National Emerging Infectious Disease Coordination
Office
(NEIDCO) and CARE International in Lao PDR
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(January 2008 to August 2009)

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Summary of Set up and Piloting of National 166 Hotline (January 2008 to August 2009)

1. Background

The 166 hotline is a nationwide free call hotline fully operational in Laos since February 2008. The 166 hotline is a pilot activity funded through the US CDC, co managed by CARE International in Lao PDR and the National Emerging Infectious Diseases Coordination Office (NIEDCO – formerly NAHICO)

The 166 hotline was developed in response to two initial observations in Laos related to Avian Influenza. The first observation was that reporting of suspected outbreaks in poultry in Laos was often slow. This is the case throughout the region, where surveillance and response systems are just beginning to develop response mechanisms to the threat of newly emerging infectious diseases. The second observation was that while initial communications campaigns were effective in increasing awareness of avian influenza, there are still many misconceptions. Often when questions are asked about AI in poultry and humans, different responses are often given, depending on who is giving the information, thereby causing confusion.

The original purpose of the 166 hotline was to serve as a fast and convenient way for the public – anyone with access to a telephone – to obtain answers to questions and concerns regarding avian influenza and to report suspected outbreaks. For the public, the hotline offers a simple, single point of access to a wide range of official and professional information and resources about AI. It is not intended to replace other sources of information, but instead offers an easy to use conduit leading the public to the best resource(s) to address their particular need or concern. The hotline also serves as a rapid, real-time feedback mechanism to provide planners with important information about the public's concerns and attitudes about AI-related issues. This information can be used to strengthen other AI interventions and campaigns.

Specifically, the initial objectives of the hotline were:

- Provision of a wide range of pre approved information and resources about Avian Influenza through a simple, single point of access to the public
- Feedback for the Government / Line Ministries about attitudes and concerns of the public and relevant data collection for research
- To provide support for reporting of suspected AI cases

In addition to these objectives, the 166 hotline provides a strong link between public and governmental institutions, assurance of dissemination of correct information, collection of data for research and anonymity for callers.

As part of the set up and piloting of the 166 hotline, the following key areas of implementation were completed:

- Development of call operation system (database)
- Development of training package
- Development of 'Question and Answers' document
- Recruitment and training of call operators
- Advertising of the hotline in conjunction with other AI stakeholders
- Development of monitoring and reporting framework
- Research into options for possible expansion if needed
- Facilitation of transfer of hotline management to partner organisation for sustainability (dependant on pilot findings)

2. Objective

The objective of this report is to provide a summary of the set up and piloting of the National 166 hotline in Laos. Data will be presented on implementation and incoming calls.

3. Implementation details

3.1 System set up – technology

Phone

To make the hotline as accessible as possible to the public, a decision was made to make the hotline a free call number. A free call number means that callers do not incur a charge when they call from either a landline or mobile phone. It does not mean that the call is 'free' per se. The 166 number is owned by Enterprise de Telecommunications Lao (ETL), which is a government owned and run Telco. ETL does not charge for the 166 number as requested by NEIDCO due to the number being in the public interest.

The hotline was initially set up with 3 incoming phone lines. These phone lines are connected to portable handheld telephones at computer workstations. One line is connected to a fax/answering service. When all lines are in use then a busy tone is heard.

Computer

Call operator workstations are equipped with a desktop computer running Windows 2003. During the set up phase, a database was developed by a consultant (funded through UNDP). The database, created in Microsoft Access allows call operators to input call data into a record system while on the phone. From this data, reports are able to be generated. In practice, call operators find it difficult to input the data while on the phone and actually record it by hand and then input it into the database at the end of every shift. This may be due to the fact that they have handheld telephones thus making typing cumbersome, but may also be due to slow typing skills. This could possibly be improved with changed equipment and regular practice.

Following piloting, there are a number of changes that needed to be made to the data collection system and thus the database now needs upgrading.

3.2 Logistics

When considering the set up of the hotline, care was made to ensure that the most appropriate logistics were considered. Initial investigations were made into a number of options for location listed below.

Location within existing Telco call centres

Investigation was made into the suitability of housing the hotline within one of the existing Telco call centres; ETL, Lao telecom or Tigo, as this could alleviate the need to recruit additional staff and to purchase new and possibly expensive equipment. Meetings with Tigo and Lao Telecom found that establishing a hotline within their call centres was not an interest for them at the time. ETL were unable to say whether it would be an interest for them as they would require a directive from government. After investigation of their current call centre operation – calls were rarely answered – this option was not pursued.

Location within Existing Emergency Units

Discussions with the Epidemiology Unit of the Vientiane Capital Health Department found that an ambulance service call centre has existed for the past 10 years. This number, which is user pays, is no longer in use due to inadequate resources and staff. The Vientiane Capital Health Department were very interested in expanding this unit again however it was considered that since the

initial target of the hotline was as an avian influenza hotline, it was not appropriate for it to be housed within a department that is solely concerned with human health.

Location within the National Avian Influenza Coordination office (NAHICO – now NEIDCO)

Discussions with the National Avian Influenza Coordination Office found that they were interested in housing the hotline. Not only did they have space available but they were also able to provide some management support in terms of monitoring of staff. The office has a joint animal and human health function and, as its title suggests, its role is to coordinate between different line ministries/sections on avian influenza issues.

Following investigations, National Avian and Human Influenza Coordination office was chosen as the site for piloting the 166 hotline. The hotline is located within the main office building. It is located in a separate room to minimize background noise and improve acoustics.

Hotline operating hours are flexible to cope with call volume. Standard operational hours began at Monday to Friday 7am to 6pm. As of June 2009, hotline operation hours are 7 days, 7am to 9pm.

An after hours message service is also operational at the hotline office. This allows callers to leave a message if they call outside of operational hours and for call operators to return their call on the following day.

3.3 Human resources

The hotline is staffed by two fulltime call operators and one full time senior project officer. The senior project officer is responsible for the day to day management of the hotline function as well as reporting requirements.

In June 2009 a roster of 18 casual call operators was created to help cope with the increased call volume created by Pandemic H1N1 2009. These casual call operators were primarily recruited from medical and agricultural faculties of universities in Vientiane Capital. The casual call operator position is an as needed position, dependant on call volume, and these staff work short shifts to fit around their study schedules.

3.4 Training

A training package was developed prior to the opening of the hotline. The package covered training in technical information, overview of AI, animal issues,

human issues, current Situation, rumor mitigation and operational procedures. All permanent staff were trained using the package before the opening of the hotline. The training was conducted by a technical consultant with vast experience managing call centres and was participatory in nature.

An additional training was conducted for casual call operators in June 2009. This training was conducted by the senior project officer. Casual call operators also had a period of on the job training for between 2-4 weeks where they were shadowed by an experienced call operator to help them build confidence and skills and ensure that they were able to perform to an acceptable standard.

A major part of the training package was the development of a Question and Answer guide. This guide was developed through the input of the IEC working group on Avian Influenza and included advice from line ministries and technical agencies on correct answers to possible questions callers may ask. The guide was approved by the relevant government authorities, which lead to call operators having faith in the fact that they were giving an approved response.

Of course, the guide could not comprehensively cover all possible questions that may be asked and therefore is to be considered a living document. It is the senior project officers responsibility to facilitate the updating of the guide when there are questions to which a response is not documented. In response to the demand for information regarding Pandemic H1N1 2009, a separate guide has been developed containing standardized responses to questions pertaining to this virus.

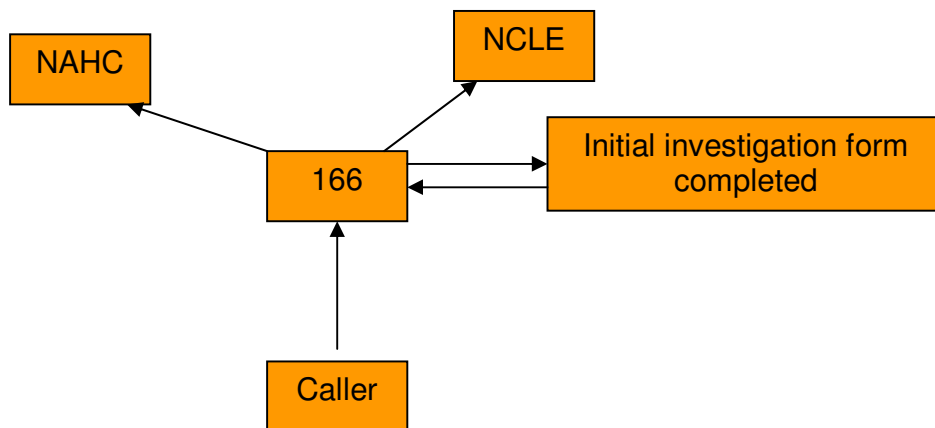
Operation manuals have been developed prior to the close of the pilot phase. These two manuals, one for the Senior project officer position and one for the call operator positions, outline simply the daily operational tasks of the hotline. The manuals were developed to ensure operational continuity should there be changes to staff. The manuals should be considered a living document and be updated by the senior project officer or other appropriate person as operational changes occur.

3.5 Reporting system

3.5.1 Reporting of suspected disease outbreaks

One of the functions of the hotline is to collect reports on suspected outbreaks and pass the information on to the respective line ministries to investigate.

Within the hotline unit the process follows the protocol below:



The initial case investigation report is a new component to the process which was developed in May 2009 following consultations with National Animal Health Centre (NAHC) and National Centre for Laboratory and Epidemiology (NCLE). It is expected that this form will help eliminate false reports that are sometimes registered at the hotline. The initial investigation form is usually done through a call back by the call operator. Basic information about the exact house location of the person making the report is determined along with detail regarding symptoms of the sick people or animals and the date of their onset. Where possible, call operators try to obtain confirmation of the report from two other people, such as the village head, other village authority or a neighbour.

Feedback from NAHC and NCLE should be given to the hotline following investigation of the report by the appropriate level. This feedback enables the hotline to track both the percentage of reported cases investigated and also the detection of outbreaks. In practice there is some difficulty with this feedback. NAHC have made attempts to strengthen this and are now generating a monthly report on investigations following reports to the 166 hotline.

3.5.2 Internal reporting

Internal reporting of hotline call data has developed through a series of iterations since the hotline inception. While initially a large amount of data was collected, it was found that this was cumbersome for call operators to do in practice, and the amount of data collected was minimised. Currently data is collected on the following:

- -Call volume
- -Call type – report, question, wrong purpose
- -Source of hearing about hotline
- -Demographics of callers (location, sex, occupation)
- -Frequently asked questions

From this data, a monthly report is generated and circulated to partners. Data is also reported in the monthly NCLE Surveillance report which is sent to every province.

During times of outbreak, a daily report is also generated. This report summarises call volume, call type and frequently asked questions only.

4. Incoming Call data

The following incoming call data results from data collected over an 18 month period between March 2008 and August 2009.

4.1 Call volume

The 166 hotline answered a total of 13,799 correct purpose calls during the March 2008 to August 2009 period.

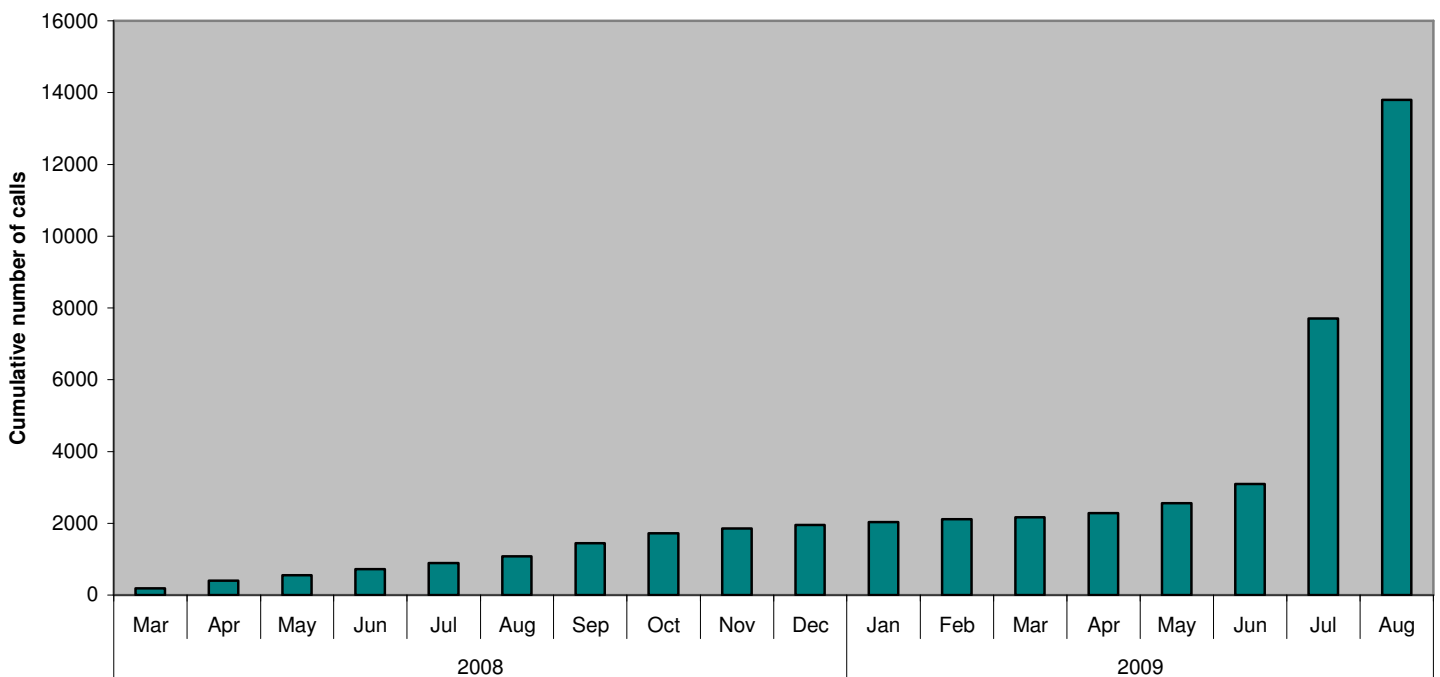


Chart 1: Cumulative number of correct purpose calls

Chart 1 shows the cumulative number of correct purpose calls. It can be seen that a large increase of calls occurred in July and August 2009. This increase corresponds to the decision to promote the 166 hotline as the national information point for public information on the new Pandemic H1N1 2009.

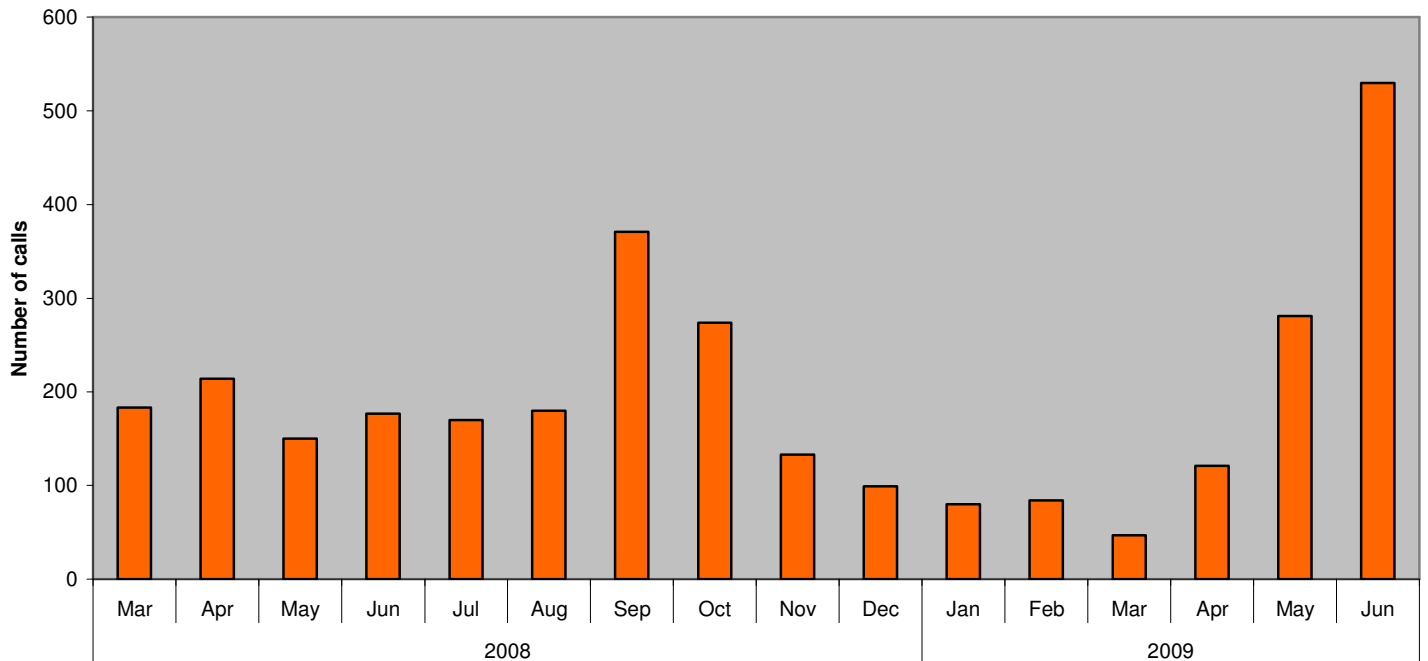


Chart 2: Number of correct purpose calls (March 08 – June 09 only)

Chart 2 shows the total number of calls per month up until June 09 (data from July and August is excluded). A number of peaks in call volume can be seen. The first is in April 2008 which corresponds to the time of outbreaks of avian influenza in Oudomxay and Luang Prabang Provinces in northern Laos. The second peak is seen in September and October 2008 which corresponds to the avian influenza outbreak in Sayabouly Province in northern Laos. The third peak is seen in May and June 2009 corresponding to the emergence of Pandemic H1N1 2009. It should be noted however that there was also an increase in avian influenza calls during May and June 2009, which does not correspond to an avian influenza outbreak but may be related to the increase in hotline opening hours or additional advertising campaigns.

4.2 Call volume – type of call

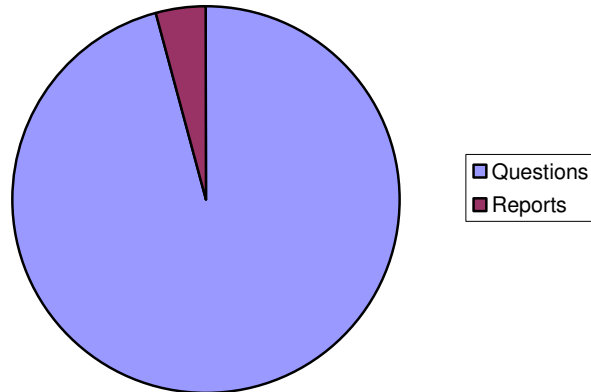


Chart 3: Total correct calls by purpose

Chart 3 shows that the majority of correct purpose calls were from public asking questions about disease. Of the total correct calls, 96% were seeking information while the remaining 4% were calls reporting suspected outbreaks of disease.

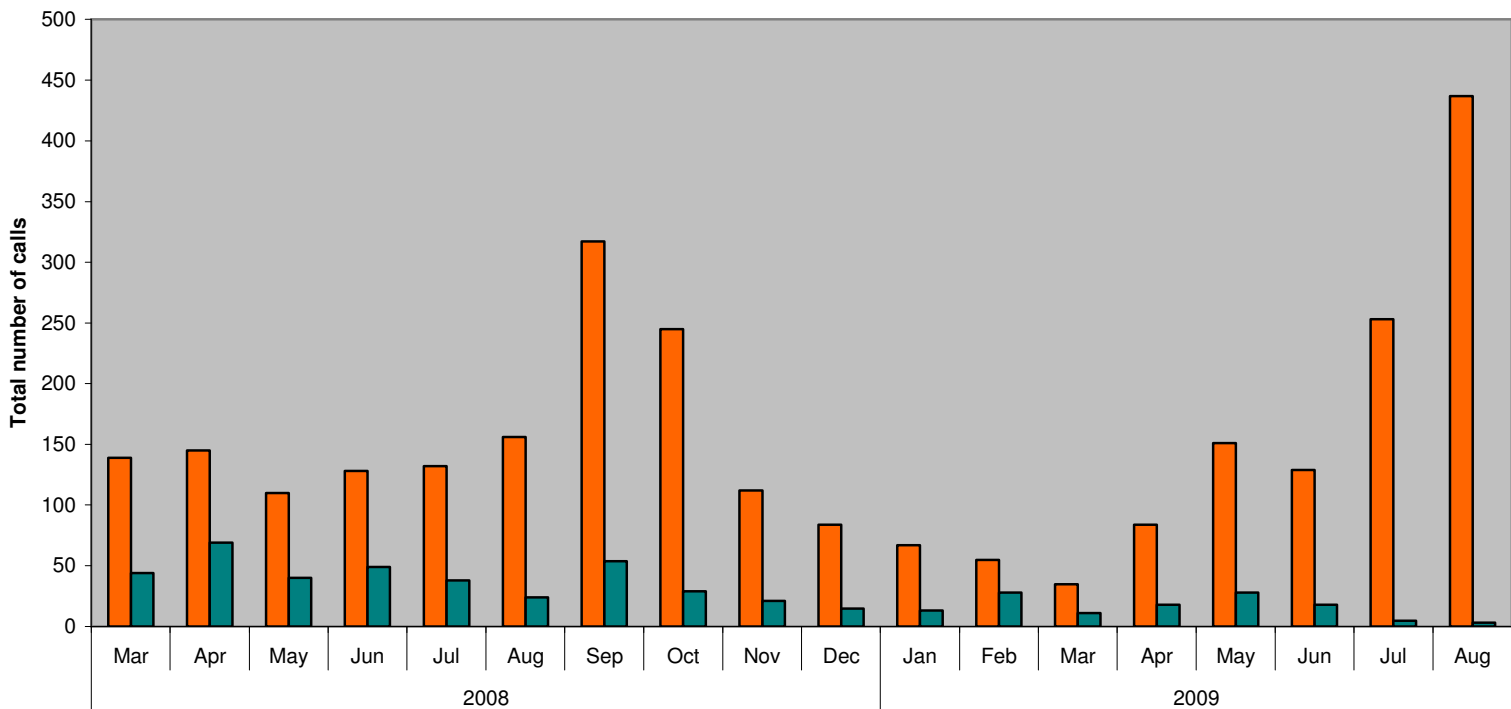


Chart 4: Total correct calls for avian influenza by call type

Chart 4 shows a breakdown of information or question calls and reporting calls for avian influenza. As with the overall calls, peaks can be seen in data for both information and reporting which corresponds to the time of the avian influenza outbreaks of April and September 2008. The average number of reports of suspected avian influenza per month is 28 while the average number of information calls for the disease is 154.

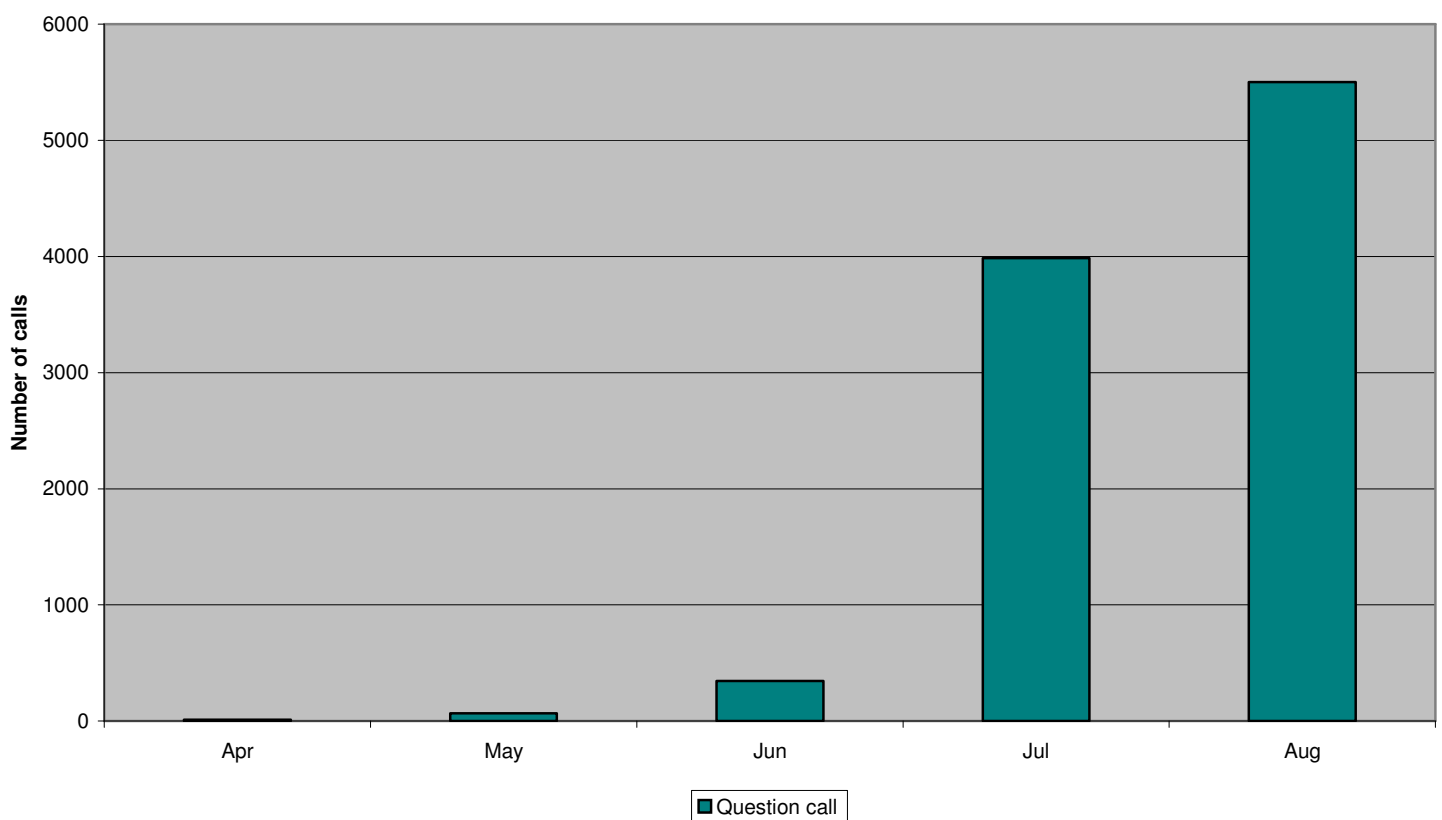


Chart 5: Total correct calls for Pandemic H1N1 2009

The 166 hotline has recorded data for calls regarding Pandemic H1N1 2009 since April 2009. Chart 6 shows that the number of calls for information regarding this new disease has risen exponentially in the five months since the first call was recorded.

Report calls for Pandemic H1N1 2009 are not shown, as since mid July call operators have been instructed not to record these calls as demand for investigation services was already overloaded and the advice is for home based care.

4.3 Call volume – comparison by disease

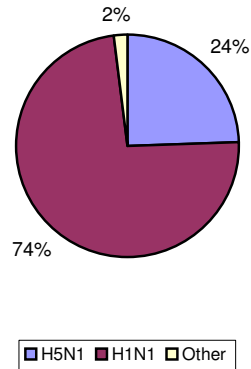


Chart 6: Total correct calls by disease

When comparing diseases callers are using the 166 hotline for, Chart 6 shows Pandemic H1N1 2009 has accounted for the largest number of calls. This is despite the original purpose of the 166 hotline being for avian influenza. A small number of calls have also been received either asking for information on or reporting suspected outbreaks/cases of other disease.

4.4 Call volume – incorrect calls

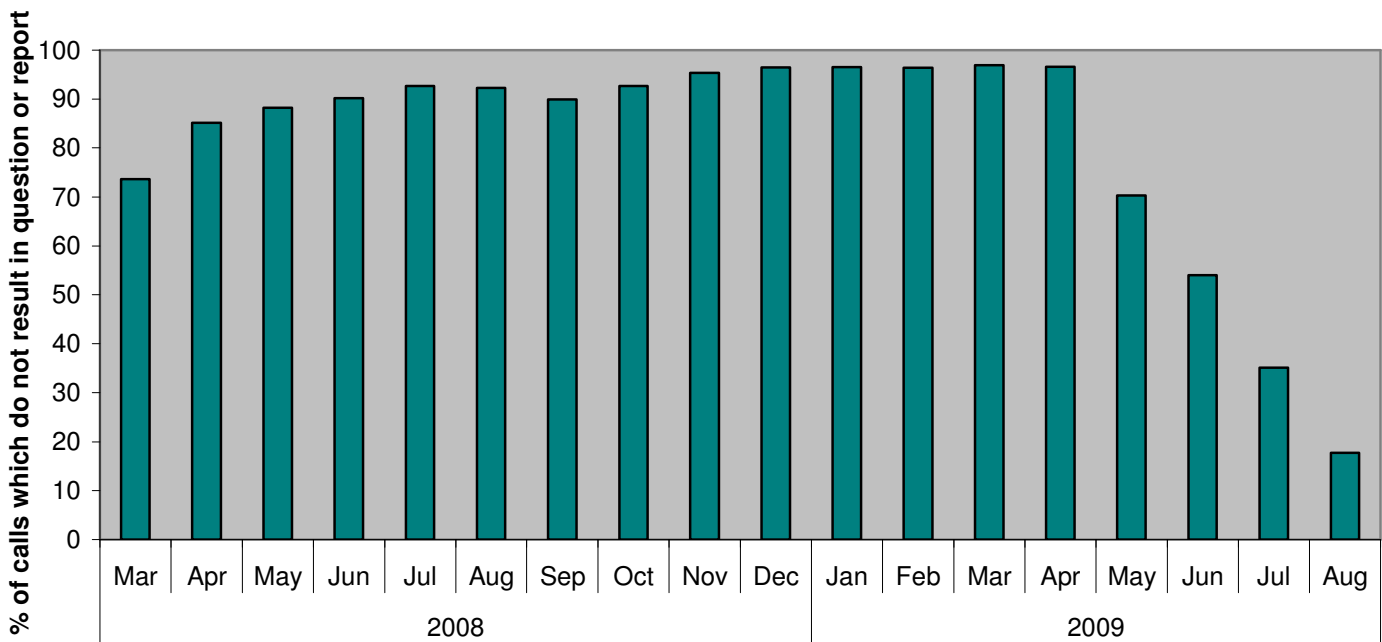


Chart 7: Percentage of calls which do not result in question or report

As with any hotline, especially a free one, there are incorrect calls recorded. Chart 7 shows the calls, as a percentage of total calls for that month, to the 166 hotline number which do not result in a question or a report of a suspected case. These calls are comprised of a number of different classifications; where the call is commenced but the caller hangs up the phone, where callers call to talk about something other than disease, when information is asked and then the caller is quiet or hangs up and when calls are made which are rude or inappropriate in nature. The number of rude or inappropriate calls has decreased since piloting began and now accounts for only a very small percentage of incorrect calls.

Chart 7 shows a recent reduction in the percentage of calls per month which do not result in question or report.

4.5 Call locations

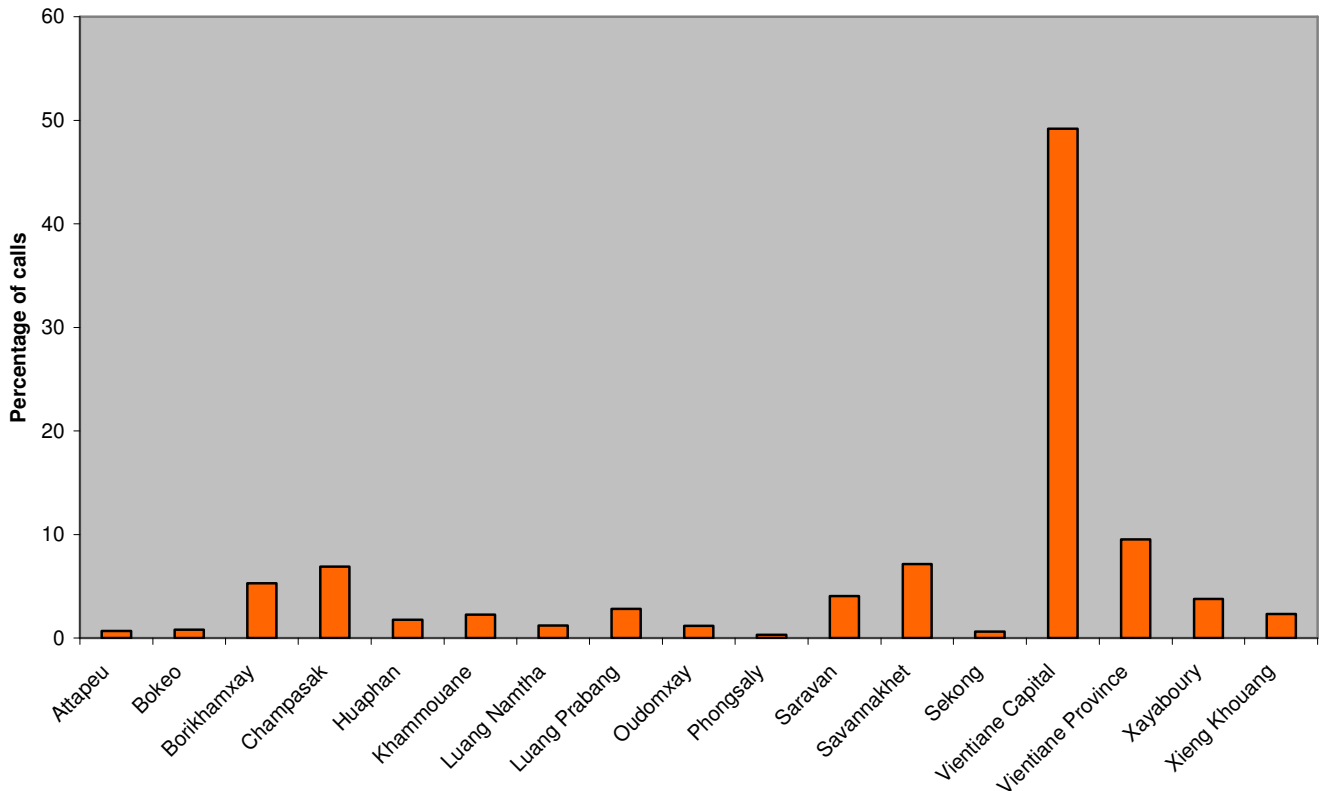


Chart 8: Provincial location of callers to 166 hotline

Callers to the 166 hotline are from every province in Laos. The majority of callers are from Vientiane Capital, perhaps due to a higher concentration of advertising in this location and a higher acceptability of people to using a hotline as an information service. Larger numbers of callers were also seen from Savanakheth, Vientiane Province, Champassak and Bolikhamxay. It may be the higher numbers of callers from these regions is due to greater frequency of campaigns advertising the hotline.

4.6 Source of information about the 166 hotline

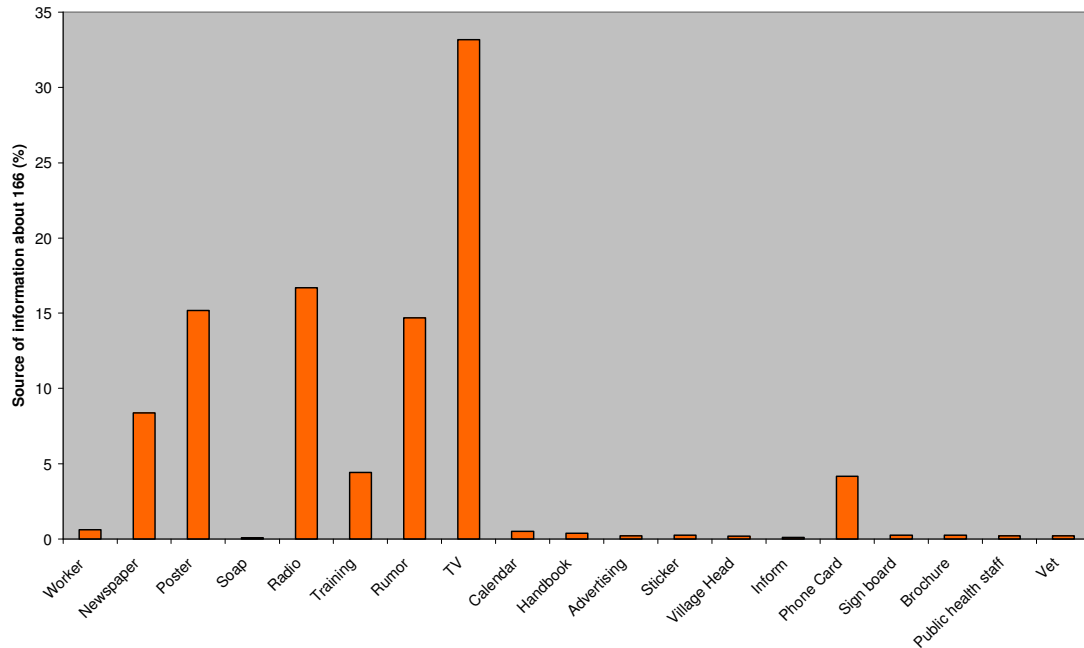


Chart 9: Callers source of hearing about the 166 hotline

As part of daily data collection, where possible call operators record the source of hearing about the 166 hotline. Chart 9 shows the public have a range of sources of hearing about 166. The primary source is television which accounts for almost 35% of the total. Radio, poster and rumor are also other common sources of hearing about the hotline. Poster has become a more common source since May 2009 and this may correspond to an increase in production of posters about Pandemic H1N1 2009. Training, a coworker or advertising on phone cards also account for significant sources of information about the 166 number for callers.

4.6 Common questions/queries

The data below shows the most common questions asked about Pandemic H1N1 2009, avian influenza and other diseases.

Most common questions for Pandemic H1N1 2009

1. What are the symptoms of Pandemic H1N1 2009 virus?
2. How to prevent our selves from Pandemic H1N1 2009 virus?
3. How many cases of Pandemic H1N1 2009 virus in Laos recently?

4. How many people died with Pandemic H1N1 2009 virus case in Laos recently?
5. How can we get Pandemic H1N1 2009 virus?
6. Could people die by Pandemic H1N1 2009 virus?
7. Where can we go for Pandemic H1N1 2009 virus examination?
8. Are there vaccines to prevent Pandemic H1N1 2009 virus?
9. Are there drugs for treatment people with Pandemic H1N1 2009 virus?
10. If people with Pandemic H1N1 2009 virus get treatment, what cost of expenses do they need to pay?

Most common questions for Avian Influenza

1. What are right ways to raise poultry?
2. Could I cook sick or dead chickens?
3. How could we get AI virus ?
4. What are the symptoms of Avian Influenza in poultry?
5. What are the symptoms of Avian Influenza in human?
6. How to prevent our poultry from AI virus?
7. What should I do if my chickens get sick?
8. What should I do with my dead chickens?
9. How to bury dead chickens?
10. Are there vaccines to prevent Avian Influenza available for poultry and human?

Most common questions for other disease concerns

1. Could we cook unknown dead cattle?
2. How to prevent our cattle from diseases?
3. Could we cook unknown dead cow/pig/buffalos?
4. How could we have officials to kill mosquitoes in our village?
5. Where could we go for HIV AIDS examination
6. Where could we get HIV AIDS treatment?

4.8 Gender of callers

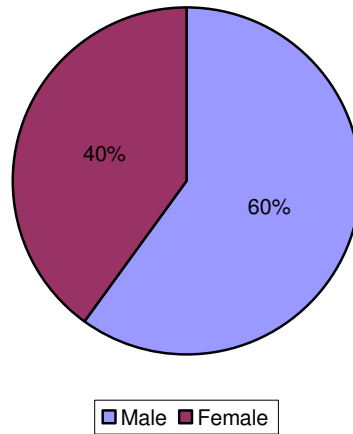


Chart 10: Gender of callers

Chart 10 shows a relatively even split in gender of callers with male callers accounting for 60% of the total and female callers for 40%.

4.9 Occupation of callers

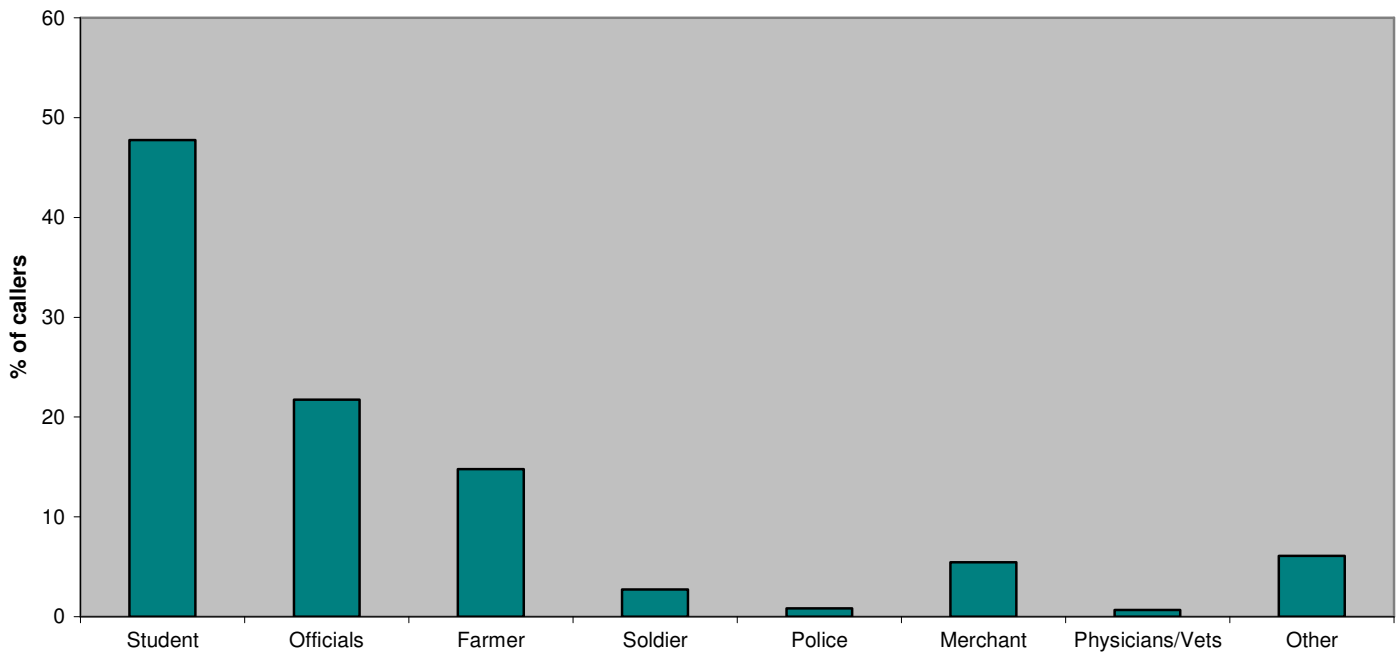


Chart 11: Occupation of callers (June, July August 2009 only)

Chart 11 shows that in the period between June to August 2009 the majority of callers were students. Majority proportions of callers were also officials and farmers. This range shows the diversity of the hotline in catering for different types of caller. The high numbers of student callers may reflect recent campaigns by the Ministry of Education on Pandemic H1N1 2009 or alternatively be a result of students feeling more comfortable using such types of technology to access information. The high numbers of calls from officials may show that the hotline is a useful way of updating knowledge of such staffs in a timely way.

5. Risks and Challenges

Through the piloting and operation of the hotline over the 18 month period, a number of risks and challenges have been observed. These risks and challenges are discussed below

5.1 Wrong calls

Wrong calls are a part of most functioning hotlines. The percentage of incorrect calls to the hotline has remained fairly constant until April 2009. At this time with the change in function of the hotline to respond to Pandemic H1N1 2009 a reduction in the number of wrong calls was observed. A possibility for this reduction is that the line is more often busy and therefore callers not calling for the correct purpose do not bother to call again. It is also possible that the reduction has been due to a new strategy which call operators are employing for wrong calls in which they advise of the law and that penalties could be put in place if they continue to make incorrect calls to the number.

5.2 Management of correct information/updates of information

A key feature of the 166 hotline is that it is a source for the public to receive up to date information on current disease situations and advice. In order for this function to be carried out successfully, it is integral that the 166 hotline staff are provided with routine updates as to the advice of relevant authorities. The recent shift in focus of the 166 hotline to responding to public information calls gave a perfect opportunity to simulate what may happen in a rapidly changing outbreak situation. In this situation there were larger numbers of incoming calls about a variety of topics. Advice changed depending on the severity of the outbreak. Often the 166 hotline was not kept fully updated on these changes in advice and this made it difficult for the correct information to be provided to callers. In future, it is recommended that an operational procedure be developed to ensure that the 166 hotline is updated of changes to technical advice in a timely fashion.

5.3 Non investigation of suspected outbreaks

One of the objectives of the 166 hotline is to provide a facility in which reports of suspected outbreaks can be made by the public. Often this is a very useful feature for farmers and others who are located a long distance from authorities to whom they would normally report. The hotline has received a large number of reports of suspected outbreaks during the piloting period, however the follow up on these reports has not been well documented. Meetings with NANC have resulted in a new monthly feedback system on the status of investigations into reports made through the 166 hotline however these suspected outbreaks show to date that there has been limited investigation of these reports. There are obviously a number of limitations to investigations by district staff into disease outbreaks which need to be discussed by authorities however it must be noted that for every non investigated report, there is a reduction in the likelihood that further reports will be made thereby reducing the likelihood of the public to be actively involved in early detection of disease outbreaks.

5.4 Diversification of hotline

As shown with Pandemic H1N1 2009, the 166 hotline has the capacity to expand its scope quickly. While it has been effective with responding to two diseases, avian influenza and Pandemic H1N1 2009 in tandem, it cannot be known if this would be the case if it was further expanded. Call data showing questions about other animal and human disease concerns indicate that there is a public interest in receiving broader information, however to ensure accuracy of information this issue expansion would need to be considered carefully. 166 hotline operators are not trained health professionals and any information they offer to callers has been subject to prior approval from technical staff. Expanding the amount of information such staff were delivering would surely result in an increase of misinformation. Should expansion be considered, there are a number of options to reduce this would need to be considered.

An additional concern of expansion of the hotline in terms of reporting of suspected outbreaks would also have to be considered carefully. Data to date has shown there are significant limitations in investigation of the reasonably low numbers of reports of suspected outbreaks. Increasing the number of diseases covered would only increase the number of these reports, thereby placing an additional demand on relevant departments for investigation.

5.5 Free call status

The free call status of the 166 hotline makes it attractive for callers and creates a system which gives equal opportunity for all. While detailed data collection has not been made as to whether or not callers would use a paid system, indications are other information lines operating a user pays in Vientiane capital receive a much lower number of calls. That said, someone does in fact pay for the calls to the free number. If changes were made to the free call status of the hotline, the implications of such a change would need to be considered.

5.6 Temporary workers

An objective of the hotline has been to create a roster of casual operators who are able to be used to answer calls either outside of regular working hours, or when a scale up in the number of operators is required. Currently the casual roster for the 166 hotline comprises of 18 staff. Due to the very nature of their positions however, it is a risk that these staff will not remain on roster for long periods of time. This will create additional demands for recruitment and re training.

5.7 Continued advertising

As shown in the results section, there are a number of sources of information about the 166 hotline, with television, radio and poster being the most frequent. In order to justify its operation, the hotline needs to be continually advertised so that the public are aware and reminded of its existence. To date advertising has occurred through campaigns for either avian influenza and Pandemic H1N1 2009. No advertising has been conducted through the hotline office itself. If there is a reduction in campaigns for these disease, it will be important that continued efforts be made to advertise the 166 hotline. It is suggested that as a starting point it be incorporated into routine trainings for animal and human health workers.

6. Conclusions and next steps

Through a sustained commitment to publicizing the hotline and enhancing its operational capacity, the 166 hotline has become a key reporting line for suspected cases of HPAI and a highly visible, important and trusted source of knowledge and advice for the public about the disease. Since its inception, over 13,000 valid calls have been answered by the 166 hotline, approximately 4% of which were reports of suspected cases and 96% were requests for information and practical prevention advice. The hotline was integral in the detection of the

HPAI outbreak in Luang Namtha in November 2007 and also detected several of the early cases of Pandemic H1N1 2009 in June and July 2009.

The accessibility and profile of the hotline have increased during the piloting period such that it is used regularly by the public to report not only cases of HPAI but other suspected diseases in livestock and humans. This, together with the decision of the Government of Laos in May 2009 to direct the public to use the hotline to access information and advice about Pandemic H1N1 2009, demonstrates the broader potential utility of the service for early outbreak detection and public health information more generally. The sound infrastructure and human resource base for the hotline has proved capable of responding to the requirements of this broader role.

Following the set up and successful piloting of the 166 hotline, CARE is now in a position to facilitate full transition of management responsibility to NEIDCO. Initial discussions with the World Bank in June 2009 indicated that funding for continued implementation of the hotline could be requested by NEIDCO from the World Bank. In preparation for this handover, CARE has provided detailed costing information and administrative documents to the World Bank to ensure the transition is managed as smoothly as possible.