

The Role of Medical Libraries and Information Services in the National Strategies for the Prevention and Control of the Avian Influenza and Pandemic Situation: the case of Romania

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Abstract

The paper approaches some aspects concerning the way in which emergency situations like the appearance of the avian influenza on the territory of a country can be managed, starting from the case of Romania, a country in the south east of Europe with a population of 22 million inhabitants and situated on the migration route of the birds that come from the north of the continent in order to winter in the Danube Delta (on the Romanian territory) or in the southern parts of Europe or in Africa, and which was confronted in 2005 and 2006 with the appearance of many avian flu foci. There are presented the measures taken for controlling and avoiding the spreading of the virus, the preparedness for dealing with this situation, the existing programmes and plans in order to address this issue, the projects concerning the prevention and control of such emergency situations and the role of the information professionals and libraries in the medical field in the specific national strategies.

Introduction

In many places on earth mankind has been confronted lately with a series of natural disasters (floods, fires, hurricanes, earthquakes) whose proportions couldn't be predicted and with new diseases like the avian influenza about which we don't know so much and in this way we can't treat them accordingly. What it is alarming is the fact that the number of these events increases every year and all we can do in order to minimize their effects is to try to be as prepared as possible to cope with them. If it is possible to prevent some of these events, for those that can't be avoided at least we should try and make all efforts in order to control and surpass them with as little as possible losses of any kind.

There must be a close collaboration among all the institutions and specialists that can contribute to avoiding and solving such emergency situations. In case of such events the minimization of their effects depends a lot on a good information. The information and communication capacity of the authorities is crucial and the library and information services and their professionals, especially those in the medical field can have a great contribution in this area. In many cases along history it was proved that the information campaigns had had a significant role.

Diseases like the avian influenza don't appear just in some parts of the globe. In 2006 the avian influenza was present on three continents, and in Europe it was officially present in 23 countries among which Albania, Bulgaria, Denmark, France, Germany, Italy, Great Britain, Poland, Romania, Russia, Slovakia and Ukraine. It was found in the wild environment but also in the domestic one. The analyses made in the European countries all showed the presence of the same type of virus: H5N1 highly pathogenic.

The case of Romania

In the autumn of 2005 Romania was confronted with the first wave of avian influenza, and then, in the spring and summer of 2006 with the second one.

Romania is a country in the south east of Europe with a population of 22 million inhabitants, situated on the migration route of the birds that come from the north of the continent in order to winter in the Danube Delta (on the Romanian territory) or in the southern parts of Europe or in Africa. This last aspect is particularly important because there should be a permanent preparedness in order to prevent the spreading of the virus and the population sickening by avian flu and a high alert level especially during the periods of the year when the migration of birds takes place.

The preparedness of a country for such emergency situations influences the whole course of events. As it came out, the Romanian authorities weren't prepared for such situation, there weren't special programmes and plans for emergency cases like the bird flu, not even after the first wave in the autumn of 2005; but after the second wave the measures taken were radical so that in the autumn of 2006 Romania wasn't confronted again with the avian flu. Still the

most important thing is that we succeeded in not having any case of avian influenza to humans.

In Romania the Disaster Medicine is part of the Emergency Medicine and enter the activity of the Public Health Institute. All experts gather in case of emergency on specialities depending on the nature of the disaster and all the interdepartmental administrative structures at national and county level are activated (the Ministry of Health, the Public Health Institute, the “Victor Babeş” Infectious Disease Hospital, Bucharest, the “Matei Balş” Institute for Infectious Diseases, Bucharest, the National Flu Centre from the “Cantacuzino” Institute of Research and Development in Microbiology and Immunology, the Pharmaceutical and Medical Devices General Department, the Ministry of Transportation, Constructions, and Tourism, the Ministry of Administration and the Interior, the Customs National Authority, the Ministry of Agriculture, Forests and Rural Development, the National Sanitary-Veterinary and Food Safety Authority, the National Committee for flu pandemic case intervention, the Medicine National Agency, the Ministry of National Defence, the Ministry of Education and Research etc.).

In Romania, the first wave of avian influenza started in October 2005 in the Danube Delta area. Experts sent by the European Commission confirmed the presence of the virus in our country. The Romanian authorities took the necessary measures to prevent the spreading of the avian flu and there were no cases of transmission of the H5N1 virus to humans.

Beginning with October 17, 2005 in Romania it functioned a plan against the avian influenza with the necessary measures: the internal and international notification procedure of the avian influenza foci, the modality of achieving the epidemiologic inquiry, the specific actions in the focus (the birds euthanasia, the control of people and animals circulation, the disinfections or the placement of the sentry chickens), the command chain and the territorial structures involved in the fight against the avian influenza, the scientific support of the action against the avian influenza (including the monitoring of the whole national territory in what concerns the domestic and wild birds), the necessary and compulsory efforts for the population (like keeping the birds inside their courtyards and the presence at the disinfection actions in the households), the national compensation system for the birds killed, the necessity vaccination of the population, the information campaign of the public, and the legislative framework for the whole operation. (1)

In the case of the second wave of avian influenza in Romania, this one had an almost explosive extension. The authorities aimed at managing the situation by closing the foci, by limiting the spreading of the virus and by avoiding the appearance of cases of human sickening. Two weeks after the starting of the second wave it came out that the origin of its appearance had been on the Codlea platform (where there are some poultry farms) where the virus had penetrated from the wild environment because the biosecurity norms had been broken. There were identified two possible ways of appearance of these foci: the

contamination through the migrating birds and the contamination as a result of the persons and means of transportation circulation. Over 80% of the foci in the country had their origin in the illegal commerce of the chickens from the farms on the Codlea platform. It came out that there had been a deficiency of internal procedures and norms to be implemented and especially not to be broken. New work procedures were established at the National Sanitary-Veterinary and Food Safety Authority (procedures for the transport and circulation of animals and products). A much more important emphasis was put on the information component. The legislation was modified, a lot of sanctions were given and the checkings increased.

After the starting of the second wave on the 12th of May 2006, the number of foci began to increase day by day, so that on the 29th of May the total number of confirmed foci and suspicions of avian influenza was 115. Until that time almost 1.1 million birds of the 100 million in the farms and households in Romania were killed. The climax was on the 8th of June when there were 127 avian influenza foci in 18 counties and in Bucharest (see the Annex). The situation remained unchanged for six days. After the poultry euthanasia and cremation and after disinfection sentry chickens were placed in the avian influenza foci. On the 13th of June there were placed sentry chickens in 118 foci. Till the beginning of June there were given compensations to the population of more than 18 billion lei especially in the counties Braşov, Prahova and Bacău, areas where most of the foci were.

Beginning with 8th of June any other suspicions of avian influenza weren't registered. And then, day by day, the number of the avian influenza foci began to decrease. On the 21st of June 24 foci were closed (in the counties Braşov, Covasna, Bacău and Vâlcea). On the 22nd of June the number of the foci was 74. On the 26th of June another 14 foci were closed (in Neamţ, Mureş, Alba, Iaşi and Prahova). On the 27th of June the number of the avian influenza foci being closed was 29. And on the 30th of July 2006 the last focus of avian influenza was closed.

The National Reference Laboratory for Avian Influenza analyzed during the period May-June 2006 a number of 8,532 samples, and the County Sanitary-Veterinary and Food Safety Laboratories examined a number of 12,736 samples in June 2006.

After checkings in 346 farms, 96 sanctions were applied.

During the whole period of existence of the avian influenza foci in Romania, the Ministry of Health supervised the health state of the persons in the areas where avian flu foci were confirmed. 8,500 persons were under clinical and epidemiologic supervision. All suspicions in the case of the 17 persons hospitalized at the "Matei Balş" Institute for Infectious Diseases, Bucharest were infirmed. Those persons were from the towns and villages where there were avian influenza foci or worked in the farms where cases of avian influenza were registered.

The information and education actions were intensified. It was made an appeal to the media, the Ministry of Education and Research and the Orthodox Church for support in training the population what to do in order not to get sick and what to do at the appearance of the first signs of sickening.

The Ministry of Education and Research took a lot of measures in order to prevent the sickening by avian influenza. Among these: the distribution of 40,000 posters, 22,000 leaflets and 60,000 booklets containing the most important norms of hygiene for preventing the spreading of the avian influenza virus. The content of these materials was decided by the Ministry of Education and Research, the Ministry of Health and UNICEF. In the areas where the virus H5N1 was present, many pupils were permitted not to go to school or they were sent to schools in other towns or villages. In schools, at the entrance little carpets with disinfectants were put. All school trips and competitions were suspended.

The informative materials sent to the Church were distributed in the parishes to inform the citizens. The public television and radio broadcast information concerning the prevention and control of the avian influenza.

In Romania, there was no case of human sickening by avian flu. There were suspicious cases of sickening, but there were no contaminated persons with H5N1 virus and nobody died from this reason.

A series of experts from FAO, WHO, EU offered support to Romania. Romania asked and received help from some EU countries like the Netherlands and Germany which provided technical expertise in Bucharest and in the counties affected by the avian influenza virus.

Beginning with mid-July, the authorities intensified the prophylactic measures in order to prevent the appearance of the avian influenza foci in the autumn, along with the wild birds migrations on the Siberiano-Caucasiano-African corridor which crosses the Romanian territory.

The methodology of surveillance and diagnosis was improved according to the techniques applied at world level and to our own experience obtained in the previous foci that evolved on the Romanian territory.

It was finalized the logistic preparation in order to cope with the appearance of new foci and it was also finalized the training of the specialists from the territory concerning the avian influenza.

The County Sanitary-Veterinary and Food Safety Directions continued during all autumn the supervision of the health state of the wild and domestic birds through clinical and laboratory exams.

In what concerns the control of the avian influenza, the method used by the authorities was the closing of every focus and repeated disinfection.

In the prevention action, the Romanian authorities took a series of measures on short term and on long term.

The **measures on short term** were:

- measures strenghten at the poultry farms with more checkings made with much more responsibility from the part of the veterinary services;
- the poultry markets were closed;
- the population in the rural areas was compelled to keep the poultry in the courtyards;
- the veterinary surgeons intensified the drawing of samples from the domestic and wild birds;
- the fines were increased;
- the fowling was forbidden on the whole Romanian territory;

- disinfection filters were placed on the national and county roads to prevent the transportation of the virus from one place to another.

The **measures on long term** involve:

- prolonged budgetary efforts;
- an effort for many years involving the scientific component (it was established the National Co-ordination Centre for the Avian Influenza);
- the Romanian veterinary services must be strengthened by increasing the staff and the budgetary resources;
- the significant and permanent strengthening of the biosecurity measures in the poultry farms;
- the authorization of the poultry farms should be more strict, the checkings more frequent, and the sanctions more drastic and easier to apply;
- the legislative base must be improved;
- it is necessary a change of the poultry breeding system in Romania (70% of the domestic birds in Romania are in the population households in the rural areas).

The solution is one on a very long term and it involves the population education and the general development of the Romanian rural areas. (2)

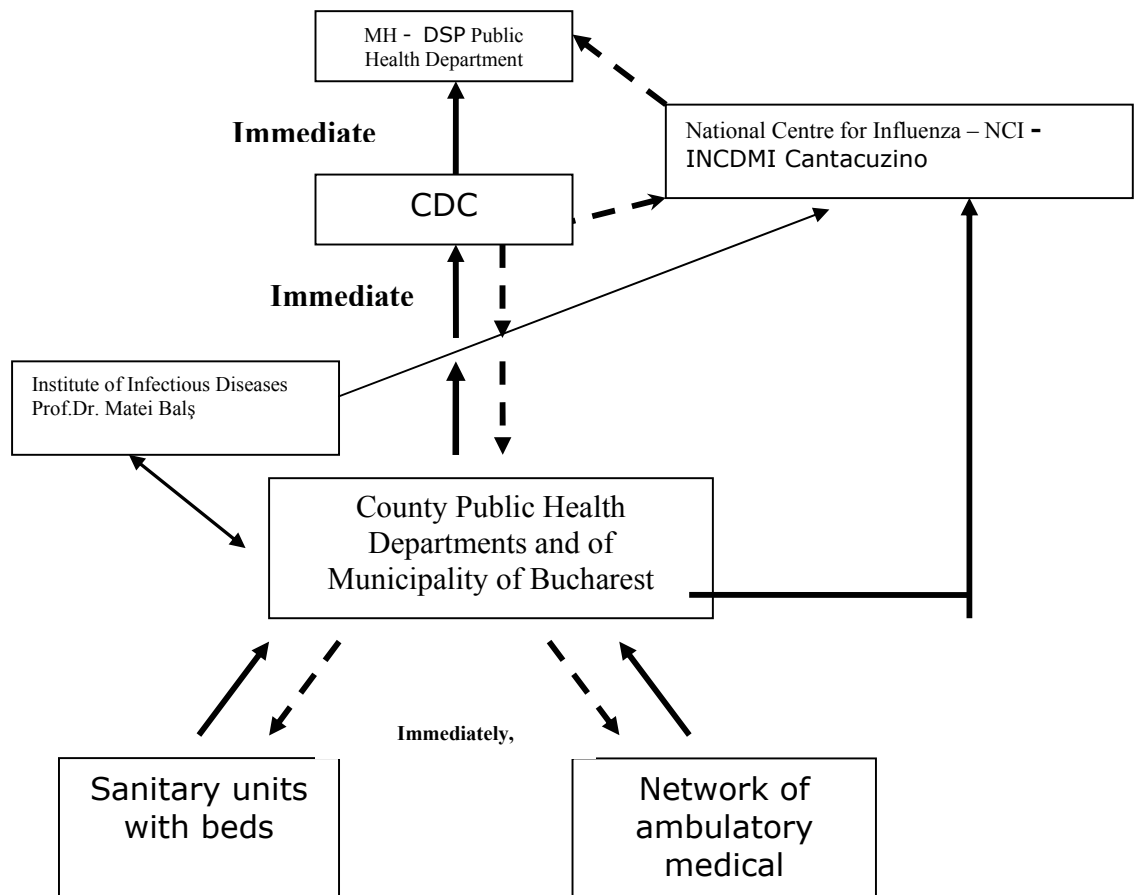
Legislative measures and other measures taken in Romania

As a result of the appearance of the avian influenza on the Romanian territory a series of documents were elaborated, many legislative measures were taken and a series of collaboration agreements were signed among different authorities with a view to avoiding the spreading of the virus and against the population sickening by avian flu. Among these there are the following (3):

- the Ministry of Health Order No. 1094 from October 13, 2005 regarding the National Plan of intervention in a flu pandemic and the National Committee formation and the county committees for flu pandemic case intervention;
- the Ministry of Health Order No. 1103/18 October 2005 on setting up the task force for supervision and monitoring the public health measures called for by the existence of bird flu cases on the Romanian territory. The task force included a series of specialists from institutions like the Ministry of Health, the "Victor Babeş" Infectious Disease Hospital, Bucharest, the "Matei Balş" Institute for Infectious Diseases, Bucharest, the Public Health Institute, the National Flu Centre from the "Cantacuzino" Institute of Research and Development in Microbiology and Immunology, the Pharmaceutical and Medical Devices General Department. Through this order it was approved the action plan set concerning the public health measures to be adopted in Ceamurlia de Jos, Tulcea county, where bird flu cases were identified;
- a Protocol (from January 13, 2006) for ensuring the public health against avian flu, by the optimization of collaboration among authorities with attributions and responsibilities in the field, among the Ministry of Health, the Ministry of Administration and the Interior, the Customs National Authority, the Ministry of Transportation, Constructions, and Tourism and the National

Sanitary-Veterinary and Food Safety Authority. The goal of the protocol is to protect public health through an effective collaborative framework among authorities responsible for the implementation of preventive and controlling measures in case of avian influenza to humans in Romania. In this protocol the attributions and responsibilities of each signatory party are specified;

- the Ministry of Health Project of preparation and control for the avian influenza and pandemic situation in Romania;
- the Ministry of Health Order No. 31/12.01.2006 for the approval of the methodology of surveillance of cases of avian influenza at humans. Taking into consideration the epizootic situation registered in Romania due to the appearance of avian influenza at birds with the influenza virus A/H5N1, that represents a considerable risk for the public health, the precocious identification of possible human sickening with avian influenza represented a priority for all the structures of public health. The methodology for surveillance of the cases of avian influenza at humans specifies the measures that must be taken (immediate hospitalization of the patient at the "Matei Balș" Institute of Infectious Diseases in Bucharest (possible, probable, confirmed cases), immediate reporting to County Public Health Department and Ministry of Health of any possible case, of all possible cases which require ambulatory medical assistance, of all possible cases hospitalized, the management of possible cases with all the phases that must be followed and conditions that must be assured, the management of contacts with possible case) with the following informational circuit:



Source: Ministry of Health. *Methodology of surveillance of cases of avian influenza at humans.*

- a Protocol (from January 26, 2006) between the Ministry of Health and the Ministry of Education and Research concerning the population health insurance against the sickening by avian flu. The goal of the protocol was to optimize the collaboration between the two ministries and the structures subordinated to them for the implementation of the measures necessary to assure the prevention of appearance and transmission of the avian flu to humans on the territory of Romania.

There were also elaborated and distributed:

- Recommendations for population;
- Recommendations for the staff of diplomatic missions, embassies, commercial firms, consulates and other person traveling in the areas/countries affected by avian flu A / H5N1 (The prevention of contamination during mission, treatment and prevention of A / H5N1 avian flu;

- Measures that must be taken after returning into country (the end of diplomatic mission/current travels);
- How to prevent the avian flu. Information for travelers (while traveling; after return).

Then 15 billion lei were given for starting a scientific research programme of the avian influenza. This measure was taken in order to allow Romania to develop a scientific activity in the field, to act efficiently and to propose much better solutions for the control of the avian influenza.

One of the support and collaboration action with the Romanian authorities was the one by which the USA Agency for International Development (USAID) offered in August 2006, 2000 sets of protection equipments for the intervention staff in case that another foci of avian influenza appear.

On a basis of a loan from the International Bank for Reconstruction and Development (29.6 million Euro) the Ministry of Health and the National Sanitary-Veterinary and Food Safety Authority will develop a project concerning the prevention and control of the spreading of the avian influenza. The project aims also at increasing the preparedness, control and answer capacity in case of influenza pandemic situation. It has three components: animal health, human health and public information and communication. (It aims at the elaboration of an integrated communication strategy and the achievement of more information campaigns.)

The Active Involvement of the Central Library of the “Carol Davila” University of Medicine and Pharmacy-Bucharest in the information actions taken during the existence of avian influenza foci on the Romanian territory

Romania doesn't have a National Library of Medicine, but during all this period of crisis generated by the existence of the avian flu foci, the Central Library of the “Carol Davila” University of Medicine and Pharmacy-Bucharest, an academic, specialized library, the largest library in Romania in the medical field through its collections and staff, organized and developed a series of special information and documentation services on the subject of the avian influenza. The library wasn't in the first line of fight, it hadn't a direct role, but its activities and services supported the information and documentation approach in this emergency situation, it provided the information and documentation base of many actions and measures taken during that period. The library offered a continuous information and provided a permanent access to information and documentation resources, it was a centre of access to information on the subject of avian influenza.

The specialists from the Ministry of Health, the “Matei Balş” Institute of Infectious Diseases in Bucharest etc. who participated in the elaboration of the plans and programmes developed for this situation used also information provided by the library and its staff.

The information and documentation services especially developed and provided to the specialists involved in the actions against the avian flu, but also to the interested population included:

- traditional bibliographic information services;
- current information;
- the aggregation of the online resources specific to the different speciality seminars and workshops organized at the university level;
- the documentary provision of the institutional approach of prevention and control of the avian influenza in co-operation with the other medical university libraries in the country (Braşov, Cluj-Napoca, Constanţa, Iaşi, Oradea, Sibiu, Timişoara, Târgu-Mureş) and the Documentary Centre of the Ministry of Health and the “Matei Balş” Institute for Infectious Diseases, Bucharest;
- the dissemination of the information concerning the avian influenza within the framework of the continuous training of the speciality physicians (bibliographic documentary achieved in collaboration with the National Centre for Postgraduate Education of the Physicians, Chemists, Other Staff with Higher Education and Medical Assistants).

It also must be mentioned the great number of information requests sent by medical staff, but also by common citizens to the online reference service “Ask the librarian” at the address biblioteca@univermed-cdgm.ro

At present, it takes place the implementation of a new library soft – Softlink Liberty 3 and also the users will soon have access by Internet to the library’s own data bases. At the moment it can still be accessed (www.univermed-cdgm.ro) just one of the resources developed by the library during the emergency situation generated by the existence of the avian influenza foci on the Romanian territory, *Disaster Medicine. The Avian Influenza in Romania. 2005-2006*, created by the departments “Automation, Electronic Catalogues and Online Resources”, “Cataloguing and Classification”, “Information and Documentation” and “Public Relations, Document Communication, Methodology and Branch Libraries”.

In Romania there is no emergency preparedness programme at the level of the medical libraries, but after the events concerning the avian flu in 2005 and 2006 there were started discussions for a co-operation programme in this field and it is desired the involvement of all the nine medical university libraries in the country with all their information and documentary resources. There are a lot of things that must be settled and agreed on, but it is clear now that the role of the library and information professionals in addressing this kind of issues like natural disasters and new diseases like the avian influenza is in the permanent provision of speciality information, in the provision of the information base for the experts and population and in their prevention on such emergency situations, in their involvement in the information campaigns at national level.

Conclusions

Romania succeeded in not having any case of human sickening by avian flu on its territory, but this doesn’t mean that the danger passed for good. The

avian influenza is a disease against which we must be prepared all the time. Until the specialists succeed in finding a solution for controlling it, the prevention of its appearance is the most efficient measure of fight against it. The experience through which Romania passed in 2005 and 2006 demonstrates that in order that the actions taken be efficient, it is necessary a mobilization of the whole system, of all the competent authorities, their collaboration, transparence, collaboration with external specialists and institutions that have more knowledge, technique and experience for such emergency situations, a coherent information campaign and the permanent access to information provided by the libraries and their information professionals, continuous efforts and maximum mobilization from all of us.

Notes

- (1) Ministerul Agriculturii, Pădurilor și Dezvoltării Rurale. *Discursul Ministrului Agriculturii, Gheorghe Flutur, referitor la moțiunea Gripa Aviară*, <http://mapam.ro>
- (2) *Ibidem*.
- (3) Ministerul Sănătății. *Gripa aviară*, www.ms.ro

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Source : The National Sanitary-Veterinary and Food Safety Authority