

ADVANCED SOCIAL TECHNOLOGIES

REPORT ON

TESTING OF COMMUNICATION

MATERIALS ON AVIAN FLU AND

RAPID ASSESSMENT ON AVIAN FLU

PREVENTION

PRESENTED TO

UNICEF YEREVAN OFFICE

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EXECUTIVE SUMMARY

Since 2003, there have been multiple outbreaks of the Influenza A (H5N1) virus (avian influenza), and recently it has begun to spread from Asia to Europe. As of 19, May, 2006, the H5N1 virus has caused 217 laboratory-confirmed human infections, over half of them fatal. It already exhibits some of the same mutations as the virus which caused the 1918 pandemic; should it become transmissible between humans, it will almost certainly cause a pandemic. Thus, the immediate priority is to prevent human exposure to the virus. The recent expansion of H5N1 into Turkey and Azerbaijan underlines the need for urgency in this regard. The UNICEF office works closely with the Government and Task Force in organization of the awareness raising campaign on prevention of the Avian Flu. UNICEF office supported development and printing of the posters, leaflets and brochures for various target audiences.

This survey had two broad objectives: *a*) to establish baselines with respect to knowledge, attitudes, practices and behaviors in relation to prevention and containment of avian flu, among the general population and those who are most at risk of infection; and *b*) to test the communication materials (posters, brochures, leaflets and TV spots) in the field and determine their appropriateness, understandability, readability and acceptability including appeal and coverage.

The survey was implemented at a total of 31 settlements of Armenia, including Yerevan, 10 marz centers and 20 villages. According to the ToR provided by the UNICEF office, the research design and sampling was purposively biased towards the “most-at-risk” and “hard-to-reach” populations. Two methods of data collection were used: a) structured face-to-face interviews and b) self-administered survey. The interviews were conducted with the general population, community leaders, rural doctors, veterinary workers and farmers, whereas the schoolchildren, teachers and doctors in polyclinics were provided with appropriate instructions and asked to fill-in the questionnaire themselves.

The survey has two main limitations that have to be considered when interpreting the findings. Firstly, being nationwide representative, the sample size was not enough big to guarantee the same level of precision for all regions of Armenia, which means that all figures broken down by marzes are rather rough approximations. Secondly, the survey did not contain a qualitative component, which limited the possibility of in-depth cause-effect analysis of the social attitudes and behaviors. However, both shortcomings are common to rapid assessments that are essential in situations of high social risk and urgency.

Analysis of the main findings of the survey allowed drawing the following **key conclusions**.

- **The most popular source of information on the topic is the Mass Media**, particularly television, which, compared to the other types of media, covers the biggest area of the country and is therefore accessible to the majority of the population.
- **The population generally possesses limited information about the avian influenza.** Although the majority of the population has certain idea about the problem, there is not enough clarity as to the symptoms, ways of transmission and possible prevention of the flu. The level of awareness is particularly low among teachers and schoolchildren.
- **Lack of awareness of the doctors needs special attention.** The survey has shown that the doctors possess just as much information on avian flu as the general population, which is unacceptable, particularly in emergency situations.
- **The majority of the population practices patterns of behavior that suppose rather low risk** of infection in case of a sudden outbreak. This is mostly conditioned by established habits and common sense rather than by the knowledge of the situation and understanding of the potential danger in relation to the avian flu.
- **Public awareness, social practices and patterns of behavior are closely linked with the subjective assessment of the risk** of the outbreak in Armenia and its possible consequences. Those who feel the risk is high are more informed and more careful in their actions. Potential danger lies in the “nothing-can-happen-to-me” attitude and possible carelessness of a large group of population, especially poultry-keepers.
- Of all communication materials developed by UNICEF **the posters and the TV spots have reached the biggest portion of the target audiences** (two thirds of the schoolchildren have seen the poster and more than half of the population has watched the TV spots). The Teacher’s guide reached one third of the teachers and the leaflets were received by approximately 13% of the households countrywide.
- **Minority and refugee populated communities need increased attention.** The survey has shown that the minority and refugee populations possess much less information on the topic than the local population. On the other hand, most of the communication materials have not reached any of the vulnerable communities included in our sample.
- The respondents in general gave high estimates as to the quality of the communication materials. Moreover, the analysis of the results of the survey showed that **the impact of the communication materials on the knowledge and practices of the target audiences is rather high**. The analysis allowed concluding that the leaflets and posters were most

effective: the target audiences have received and sustained more information from these communication tools than from the others.

Based on the main findings of the survey and in the view of increasing the efficiency of the communication **it is recommended to:**

✓ **Make better use of the Mass Media**

- a) Television allows reaching out to the biggest number of people. At the same time, it seems that the messages that are communicated through the TV spots on avian flu are not very well perceived by the audience. (Although majority of the surveyed population has seen the spots, only few people could recall all advises that are communicated.) It is therefore recommended to **pay more attention to the techniques of delivery of the key messages**. In case if UNICEF finds it feasible to modify the TV spots or develop new ones, it is highly recommended that the spots are tested among the potential audience prior to putting them on air.
- b) **Additional communication tools can be utilized** for disseminating the necessary information through Mass Media. Those can include live TV programs with direct phone connection to the audience, as well as publishing of situation updates and professional advises in print media. One of the most effective tools can be the regular section of Frequently Asked Questions on Avian Flu. Questions that have been raised by the respondents of the survey can be used as a starting point. Additionally, the abovementioned information can be made available through the internet. Although there is currently plenty of information for the internet users, it is mostly in foreign languages and cannot be used by the Armenian speakers

✓ **Improve the information transmitted**

The survey has shown that the population needs more information on the symptoms, causes and consequence of the disease. Although the vast majority found the leaflets, posters and brochures understandable and readable, the amount of information transmitted could be increased. It is therefore needed to find a **balance between simplicity and informativeness**. The materials should be targeted at average reader. The data on the amount of information that the average readers have can be distilled from the results of the survey. In case if UNICEF finds it feasible publish new materials, it is highly recommended that the sample materials are tested among the target population before distribution.

✓ **Improve the coverage**

- a) The survey has shown that the coverage of the leaflets is relatively low. On the other hand, the leaflet was found to be one of the most effective tools of communication. It is therefore necessary to **continue the dissemination of the leaflet and improve the**

monitoring of the distribution process. Most importantly, the second wave of the distribution [if such is envisioned] should cover the minority and refugee populated communities, which were missed during the first wave.

- b) **More effort is needed to increase the level of awareness of teachers and schoolchildren.** Improved circulation of the Teacher's guide can help both to transmit the knowledge to the teachers and children, because half of the surveyed schoolchildren stated they get avian flu related information from their teachers.

✓ **Undertake support activities to facilitate the learning**

- a) The survey allowed concluding that certain support activities must be taken in order to facilitate the apprehension and increase the impact of the communicated material. Particularly, it is essential to hold **information sessions for teachers** to ensure that they realize the importance of coaching the children, to help them understand the material, to answer any questions that they feel were not covered in the Guide, and give them hints as to how the information shall be communicated.
- b) Additional measures need to be taken to **raise the awareness of the doctors.** The means of communication and the content of communication materials should differ from those designed for "non-professional" audience. It is recommended that the doctors are provided with professional training courses and invited to issue-based workshops with participation of healthcare officials, experts of virology and epidemiology.

INTRODUCTION

BACKGROUND

Since 2003, there have been multiple outbreaks of the Influenza A (H5N1) virus (avian influenza), and recently it has begun to spread from Asia to Europe. More than 150 million poultry have died, either from the disease itself or from culling. As of 19, May, 2006, the H5N1 virus has caused 217 laboratory-confirmed human infections, over half of them fatal. It already exhibits some of the same mutations as the virus which caused the 1918 pandemic; should it become transmissible between humans, it will almost certainly cause a pandemic. Thus, the immediate priority is to prevent human exposure to the virus. The recent expansion of H5N1 into Turkey and Azerbaijan underlines the need for urgency in this regard.

The UNICEF office works closely with the Government and Task Force in organisation of the awareness raising campaign on prevention from the Avian Flu. UNICEF office supported development and printing of the posters, leaflets and brochures for various target audiences. 3,000 copies of the poster were to be distributed in 1400 schools and 1054 primary healthcare facilities countrywide; 2,000 copies of the “Teacher`s Guide” were to be distributed among teachers who should use them for special sessions for school children on Avian Flu; and 305,000 copies of the leaflet (Armenian and Russian) were to be distributed to the general population countrywide. Two TV spots were developed and put on air starting March 2006. According to the distribution plan the marzes should have received the printed materials during February – March 2006.

OBJECTIVES AND SCOPE OF THE SURVEY

The survey had two broad objectives: *a*) to establish baselines with respect to knowledge, attitudes, practices and behaviors in relation to prevention and containment of avian flu, among the general population and those who are most at risk of infection; and *b*) to test the communication materials (posters, brochures, leaflets and TV spots) in the field and determine their appropriateness, understandability, readability and acceptability including appeal and coverage.

The primary data was collected from the following groups of respondents:

1. General population (a sample of 1100 respondents nationwide);
2. Schoolchildren, ages 11-17 (a sample of 923 children from 45 secondary schools nationwide);
3. Teachers of secondary schools (a sample of 330 respondents nationwide);

4. Doctors (a sample of 179 doctors representing 19 polyclinics and 17 primary healthcare units nationwide);
5. Community leaders (city or village mayors or their deputies in 29 regional settlements, and leaders of 5 communities in Yerevan);
6. Veterinary extension workers (16 respondents representing all regions except Aragatsotn);
7. Six small-scale poultry farmers and traders from Gegharkunik, Syunik, Vayots Dzor and Tavush regions.

The survey was carried out in May 2006.

SURVEY METHODOLOGY

Data collection methods: Two methods of data collection were used: a) structured face-to-face interviews and b) self-administered survey. The interviews were conducted with the general population, community leaders, rural doctors, veterinary workers and farmers, whereas the schoolchildren, teachers and doctors in polyclinics were provided with appropriate instructions and asked to fill-in the questionnaire themselves. Although the same frame of questions was asked to all groups of respondents, separate questionnaires were developed for each group to reflect age and occupation specifics. The respondents were provided with guarantees of confidentiality and anonymity of the survey results.

Sampling: The survey was implemented at a total of 31 settlements of Armenia, including Yerevan, 10 marz centers and 20 villages. According to the ToR provided by the UNICEF office, the research design and sampling was purposively biased towards the “most-at-risk” and “hard-to-reach” populations. Therefore the survey was carried out in those rural settlements that are considered to be most risky either because of the usual flows of migratory birds, or closeness to water reservoirs that can potentially be affected.¹

The sample size for the **survey of the general population** was 1100 respondents. Calculated based on the Census 2001 data on de facto population of Armenia aged 15 and above (2,258,403), this sample size guarantees a margin error of 3% at 95% confidence level. 20 interviews were conducted in each selected village and 60 interviews in each marz center. Each selected settlement (city or village) was divided into 3 conditional areas: center, semi-periphery and periphery. The total number of interviews to be conducted in each settlement was distributed among the three areas with a proportion that hypothetically corresponds to the density of population in each area (center – 20%, semi-periphery - 35%, periphery - 45%). Target households and the respondents were selected randomly.

¹ The information was provided by the Institute of Zoology of the National Academy of Sciences of Armenia.

Self-administered survey was implemented in 45 secondary schools (one in each village, two in each marz center and five in Yerevan) and 19 polyclinics (one or two in the marz centers and five in Yerevan). [If more than one] schools and polyclinics in each settlement were selected randomly. The surveyors arranged meetings with one group of teachers and two groups of students in each school (one from middle and one from high school), and a group of health workers in polyclinics. After the presentation of objectives of the survey, the respondents were expected to fill-in the questionnaires and return them to the facilitators.

Local doctors, veterinary and farmers were identified through the community leaders during the field work.

Data processing and analysis: The questionnaires for self-administered survey were coded according to the keys that were predefined in the structured questionnaires. Additional keys were defined for responses to group specific questions. The data was inputted into the SPSS base, cleaned, and quantitatively analyzed to generate necessary frequency tables and cross-tabulations.

Key limitations: The survey has two main limitations that have to be considered when interpreting the findings. Firstly, being nationwide representative, the sample size was not enough big to guarantee the same level of precision for all regions of Armenia, which means that all figures broken down by marzes are rather rough approximations. Secondly, the survey did not contain a qualitative component, which limited the possibility of in-depth cause-effect analysis of the social attitudes and behaviors. However, both shortcomings are common to rapid assessments that are essential in situations of high social risk and urgency.

CHAPTER 1. KNOWLEDGE, ATTITUDES AND PRACTICES

SOURCES OF INFORMATION ON AVIAN FLU

General population: When asked about sources of information on avian flu, almost all respondents (95.2%) mentioned Mass Media. Moreover, for 84% of the survey participants, Mass Media is the **only** source of information on the topic.

Although in various other situations people in Armenia seem to prefer informal channels of information, only 6.5% of the respondents get information on avian flu from friends, relatives or acquaintances. This outcome, however, is quite reasonable. The information that has been circulating among the population since the beginning of the current outbreak of the disease was scattered and contradictory.

Even smaller groups of respondents get avian flu related information from health workers (doctors, veterinary) and local authorities (5.5% and 4.6% accordingly). The reason, perhaps, is that the authorities and health workers failed to promptly respond to the increasing demand for up to date information.

Table 1. Sources of information on avian flu (multiple responses)

Source	Frequency	Percent
Mass Media	1047	95.2
Friends, relatives	72	6.5
Doctors, veterinary	61	5.5
Local authorities	35	4.6
Other	15	1.4
None	9	0.8
Total responses	1254	114.0

Specifics: Even though Mass Media is the most popular source of information on the disease for all groups of respondents, the prevalence of other sources of information depends on the group the respondent belongs to. Thus, 41% of students get avian flu related information from parents and other relatives and 27.1% get necessary information from their teachers. Of all adult groups, teachers use the informal sources of information the most: each fourth surveyed teacher (23.3%) stated that friends and relatives are one of their sources of information on avian flu. Almost half of the surveyed doctors (48%) prefer getting professional information from their colleagues. This finding hardly compares with the fact that only 5.5% of the general population considers doctors as a reliable source of information in this regard. Unlike the other groups, majority of the community leaders (55.9%) and 5 out of 6 interviewed farmers mentioned local authorities among the sources of avian flu related information.

LEVEL OF AWARENESS

Symptoms of the avian flu in birds: One fourth of the surveyed general population would not be able to determine whether a bird should be suspected of having avian flu. At the same time, 75% of the respondents have named at least one symptom of avian flu in birds.

Table 2. Symptoms of avian flu in birds (multiple responses)

Symptom	Frequency	Percent
Decrease in activity	594	54.0
Decline in egg production	362	32.9
Hypersalivation	238	21.6
Unusual behavior	202	18.4
Facial swelling	188	17.1
Comb and wattles change color	5	0.5
Diarrhea	3	0.3
Muscle weakness/paralysis	9	0.8
Other correct answer	62	5.6
Other wrong answer	29	2.6
Laboratory examination is needed	9	0.8
There are no symptoms	11	1.0
Don't know.	262	23.8
Total responses	1974	179.5

Given this breakdown, we are inclined to think that the answers of the respondents can be attributed to common sense and logic coupled with practice of backyard poultry-keeping, rather than to the actual knowledge of manifestations of the specific type of virus, because various diseases that are common to domestic birds develop similar symptoms. Nevertheless, the fact that the vast majority of the population is able to determine that “something is definitely wrong with the bird” is perhaps enough to make people avoid possibly infected species and can to a certain extent help preventing the epidemic.

On the other hand, Table 2 shows that in the opinion of the majority of the respondents the signs of the flu should be rather obvious, although, in fact, *in the mild form, signs of illness may be expressed only as ruffled feathers, reduced egg production, or mild effects on the respiratory system.*² For a side observer, such symptoms may remain unnoticed, which increases the risk of getting infected in case of an outbreak of the virus in Armenia.

Transmission of the avian flu: Another important issue is the extent to which the population is aware of the ways the virus spreads among birds and from birds to humans. The results of the

² Hereinafter, *italics* means the statement is quoted from the websites of the World Health Organization (WHO) or the Center for Disease Control and Prevention (CDC)

survey show that majority of the population thinks both bird-to-bird and bird-to-human transmission of the virus occurs from contact with infected birds. In either case, very few of the respondents could specify the mode of the contact when the infection is most likely to occur.

Table 3 summarizes the answers of the surveyed general population to the question of how **birds** become infected with the flu.

Table 3. Bird-to-bird transmission of the virus (multiple responses)

Way	Frequency	Percent
Contact with infected wild birds	701	63.7
Contact with infected domestic birds	542	49.3
Contact with infected dead birds	188	17.1
Direct contact with droppings of infected birds	50	4.5
Direct contact with respiratory secretions of infected birds	93	8.5
Eating from the same feeder with infected birds	40	3.6
Other	75	6.8
Don't know	85	7.7
Total responses	1774	161.2

Although the vast majority of the respondents (92.3%) could answer the question, their idea about the way the virus spreads among birds is generally quite vague. It is reported that *birds become infected when they have contact with contaminated excretions or with surfaces (such as dirt or cages) or materials (such as water or feed) that are contaminated with excretions or secretions*. Only 183 out of 1774 or roughly about 10% of the recorded answers strictly fall under this description. Moreover, none of the respondents have mentioned the recently proven fact that *a clinically normal waterfowl and sea birds may introduce the virus into flocks*.

Table 4 presents the answers of the respondents to the question of how **humans** become infected with the avian flu.

Table 4. Bird-to-human transmission of the virus (multiple responses)

Way	Frequency	Percent
Contact with infected birds	918	83.5
Eating poultry products	741	67.4
Processing infected poultry products	127	11.5
Direct contact with discharges of infected birds	96	8.7
Other	66	5.9
Don't know	49	4.5
Total responses	1997	181.5

There are two major concerns connected with the abovementioned results. Firstly, most of the respondents still failed to provide clarifications as to the type of the contact with infected birds that can lead to infection. It is currently known that humans can get infected with the virus through *direct contact with infected poultry, or surfaces and objects contaminated by their feces*. At that, *the exposure is considered most likely during slaughter, defeathering, butchering, and preparation of poultry for cooking*. Table 4 shows that, roughly, only each tenth respondent is aware of the potential risk connected with processing of infected poultry and getting in touch with contaminated objects. On the other hand, majority of the respondents are convinced that people can get infected with the virus when eating poultry products. Standing alone (without further specifications of the basic safety measures that need to be taken when cooking the products), this is a misconception, which can result in negative economic consequences both for the households and for the local poultry business.

Prevention of avian flu: Majority of the respondents (65.5%) thinks that in order not to become infected, people need to avoid contacting with living or dead birds. At that, each fourth respondent (24.5%) believes that it is the **only** way to prevent the infection. The latter presents a rather serious concern, since, as it was mentioned above, humans do not necessarily need to get in direct contact with infected birds to catch the virus. 20.1% of the respondents think that for safety reasons poultry products should not be consumed at all, whereas 30.4% suggest that it is possible to avoid getting the virus from infected birds if the products are properly processed and well cooked. 19.6% of survey participants think that safety measures need to be taken when dealing with domestic birds. Other suggestions included following the rules of basic hygiene, vaccination of the poultry, culling domestic birds, or consuming only trustworthy poultry products.

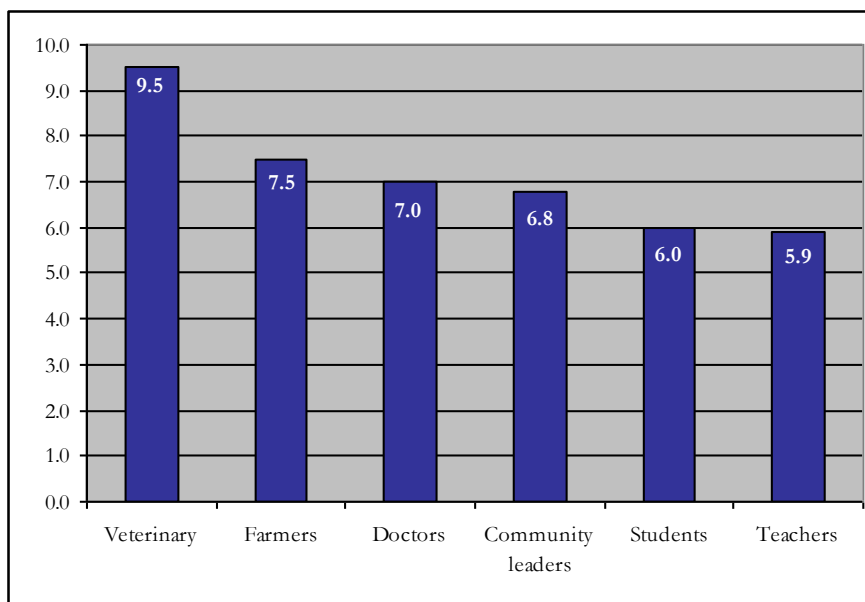
Level of awareness of different groups of respondents: We have introduced a simple scoring system, the essence of which was that the respondents got 1 conditional point for each correct answer to either of the questions discussed above. Since the maximum number of points could not be defined, the scores have been used only for comparative purposes. Equating the mean cumulative score of the general population (6.2 points) to “average awareness”, we were able to find out which groups of the population possess more/less than average information on avian flu. It appeared that the **minority population and refugees** have considerably less information on avian flu than the native population (5.1 points).

The **rural population** appeared to be more aware about the disease than the regional urban population and far more aware than Yerevan population (6.5, 6.3 and 4.5 points). Given the Armenian reality this finding is quite outstanding, since the highest level of public awareness on a variety of issues is most often observed in Yerevan. The low level of awareness of Yerevan population can be partly explained by the fact that the knowledge on avian flu was found to be

closely linked to poultry keeping practice – those respondents who keep poultry possess more information on the flu than those who do not (6.8 and 5.8 points accordingly). On the other hand, as the answers of the respondents have testified, the population connects the risk of getting infected with direct contact with birds. Being less disposed to various types of contact with avian species, the population of the capital might simply be less interested in the topic than the rural population.

The survey revealed that there are no significant correlations between the **gender or age** of the respondents and the level of awareness on avian flu. Nevertheless, we got interesting results when comparing the level of awareness of different **target groups** of respondents. Lowest level of awareness was observed in the group of teachers (5.9 points) and the highest was recorded among the veterinary (9.5 points).

Chart 1. Level of awareness of different target groups



As shown, an average teacher possesses even less information on avian flu than an average student, which might become a serious obstacle if the communication of avian flu related information to children is delegated to teachers.

Another finding is that the highest level of awareness is observed in groups that either have or can potentially have close contact with poultry (veterinary workers and farmers). The relatively low level of awareness of the doctors, on the other hand, is an issue of concern. And what is even more important than the rough numbers, is one observation of the surveyors: being unable to answer certain questions, some doctors have even argued that they do not have to be aware of the details, because they are not veterinary workers and are not supposed to treat animals. The latter was, of course, not a widespread opinion and cannot be referred to when making judgments about the professionalism of the doctors in general.

Information needs: Most of the respondents would like to get reliable information as to whether any cases of avian flu have been recorded in Armenia (43.8%) and how people can get protected from the infection (38.5%). Smaller groups of respondents would like to know more about the symptoms of the flu in humans, the way the virus is transmitted, the things to do if a person has symptoms of the flu, and the effects of the avian flu on human health. Some of the specific questions the respondents have asked were:

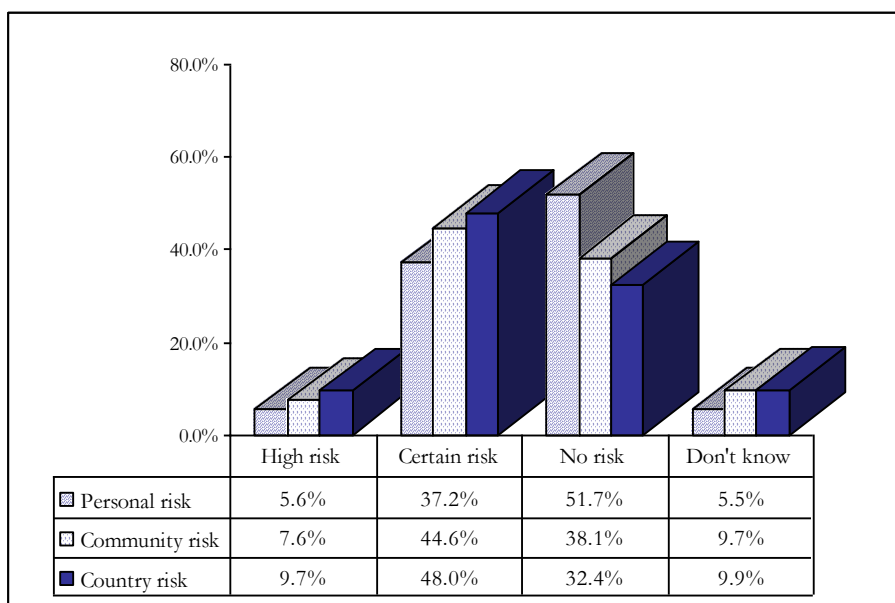
- Is Armenia at risk?
- Which are the most risky zones of Armenia in terms of the possible outbreak of the infection?
- What measures are taken in Armenia to prevent the possible epidemic?
- How many people have so far been infected worldwide?
- How and when did the virus first appear?
- Can the virus mutate and, if so, how?
- Is it possible to recover from the flu?
- Besides the avian species, which other animals can carry the virus?
- Is it safe to eat poultry products?

RISK ASSESSMENT

Public perception of the risk: Main findings regarding the knowledge of the population about the avian flu have led to the assumption that the amount of information the respondents have depends on the extent to which they consider themselves to be at risk in case of a sudden outbreak of the disease. It is therefore necessary to discuss the public perception of the risk of the outbreak of influenza in Armenia and assess the respondents' perception of personal and community risk in this regard.

It appeared that about half of the respondents (48.0%) think there is a certain risk that the virus spreads to Armenia and roughly each tenth respondent (9.7%) believes the risk is very high. At the same time, 32.4% of the general population is convinced that the outbreak is absolutely impossible. When talking about community risk and personal risk the respondents have expressed more optimistic views: 38.1% of the respondents think their communities are not at risk and majority of the respondents (51.7%) are certain that they themselves are not at risk of being infected.

Chart 2. Perception of personal, community and country risks



The chart shows that there is more certainty regarding the personal risk than the community and country risks, which is quite reasonable, considering that the assessment of community and country risks requires more information about the general situation.

On one hand, it is good to know that the majority of the respondents have placed themselves in the not-at-risk group. On the other hand, however, this may result in carelessness that can lead to serious consequences in case if the subjective perception does not reflect the real situation.

Unnecessary panic is certainly not a good alternative; however staying alert may help preventing the outbreak.

Specifics: Another important question that needs to be addressed is which groups of the population consider themselves to be most or least at risk. One of the most remarkable findings in this sense was that the perception of the personal risk is linked with the respondents' **knowledge** of the issue. Respondents with higher level of awareness seem to be more concerned with the probability of getting infected than those who are less informed. It appeared impossible to define though, which of the two – the knowledge or the perception of the risk – is the dependent variable, or else, to establish whether the perception of high risk is what leads to the increased need for information or the knowledge of the situation is what leads to realizing of the risk.

Turning to more objective factors that determine the perception of the personal risk, it should first be mentioned that the **rural population** reasonably feels less protected against the flu than the urban population. What seems unreasonable is that 38.9% of those who practice **backyard poultry-keeping** think they face absolutely no risk of being infected. One of the possible causes for this is still the level of awareness, which is lower among this 38.9% than among the rest of

the poultry-keepers (6.2 and 6.8 points accordingly). Whatever the reasons are, the “nothing-can-happen-to-me” attitude is very alarming, because the attitude is what affects the behavior, and inaction or wrong action of those in closest contact with the main transmitters of the virus is what can become a cause for epidemic.

Of all target groups of the respondents, **veterinary workers** seem to be most concerned with personal safety: 18.8% or almost each fifth of them thinks the risk of becoming infected is very high. The personal risk of infection worries the majority of the surveyed **doctors** as well, which is quite justified, considering the probability that the virus might mutate to a form that is transmittable from human to human.

Compared to the other groups of respondents, the surveyed **children** have assessed the personal risk somewhat differently. Only 26.6% of them believes that they are not at all at risk of becoming infected, which hardly compares with the optimism of the 51.7% of the general population (*see Chart 2*). Although the possible carelessness of literally each fourth child is a serious matter of concern, it is encouraging that the vast majority of the children would stay away from potential sources of infection if properly instructed.

Some useful patterns of behavior: In order to assess the real risk connected with certain actions of the people we have presented two hypothetical situations and asked the respondents to tell the most probable actions they would take in each of those.

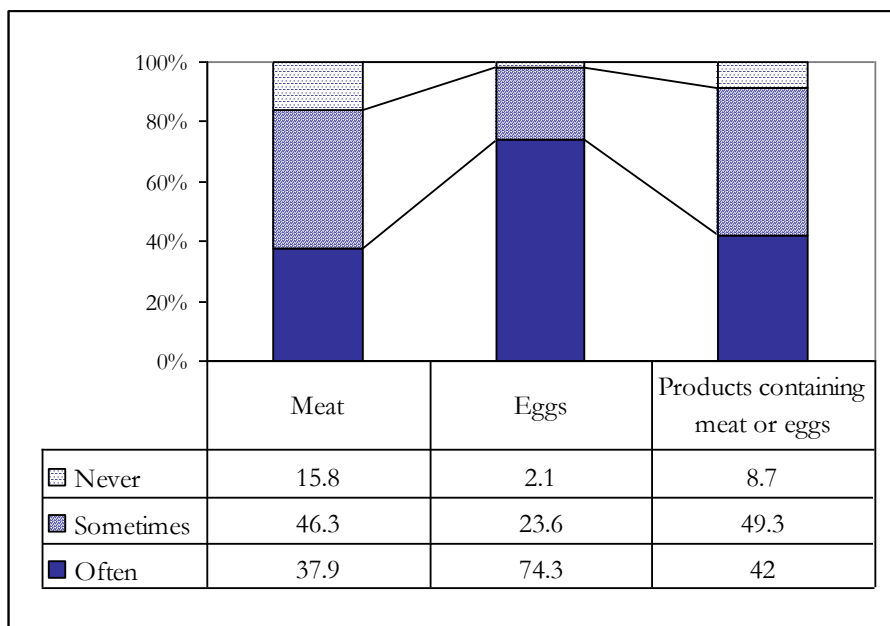
One of the questions was what the respondent would and would not do in case he/she sees a dead bird. The general breakdown of the responses speaks for the fact that the population in general would act adequately. Majority of the respondents stated they would not touch the bird, would not let others, especially children, to come closer, and would immediately contact the local authorities or the veterinary service. 17.5% stated they would take the bird with gloves and either discharge it or take it to the veterinary service. Some respondents, however, would take actions that are connected with high risk of becoming infected or indirectly causing the infection of other people: 6.3% of the respondents stated they would take the bird with hands and either discharge or bury it and 5.7% of the survey participants would immediately call their co-villagers, friends and relatives to the place where the bird was found.

The second question was about the actions the respondents would take in case if one of their family members had symptoms of severe respiratory infection. 75.8% of the respondent asserted they would call a doctor; however, 23.1% stated they would try to treat the person themselves. A remarkable finding in this context was that the majority of the population of Yerevan (53.0%) would prefer self-treatment to professional examination and advice.

COMMON PRACTICES

Consumption of poultry products: Despite the opinion of 67.4% of the respondents that humans may become infected with the avian flu by eating infected poultry products (*see Table 4, p. 6*), the vast majority of the respondents do currently consume various poultry products.

Chart 3. Consumption of poultry products



This is quite natural. People are used to consume poultry products, because they are cheap and highly nutritious. On the other hand, no cases of avian flu have been recorded in Armenia and people generally feel safe about the local production. This is why, perhaps, the majority of the respondents have stated that the talks about the avian flu have not affected their consumption patterns.

However, what interested us most was not the fact of the consumption, which itself does not carry any risk, but whether or not the population is aware of and is taking basic safety precautions when preparing poultry products. The majority of the respondents (76.7%) stated they wash eggs before cooking them and the remaining 23.3% do not have the habit to do so. Furthermore, only 11.3% of the respondents said their family members process the rough meat with gloves. Even if the risk of the avian flu is left aside, both of the habits are actually rules of basic hygiene, which, if not followed, may bring to diseases of various levels of severity.

Poultry-keeping: More than a third of all surveyed households (35.9%) keep poultry. Poultry-keeping is especially widespread in rural areas, where 71.4% of the respondents practice backyard poultry keeping. In urban areas (except Yerevan, where only one surveyed household was keeping poultry), 18.1% of the households are engaged in poultry-keeping. Poultry is mostly kept in separate cages (64.4% of cases); however, 35% of the households keep it together with

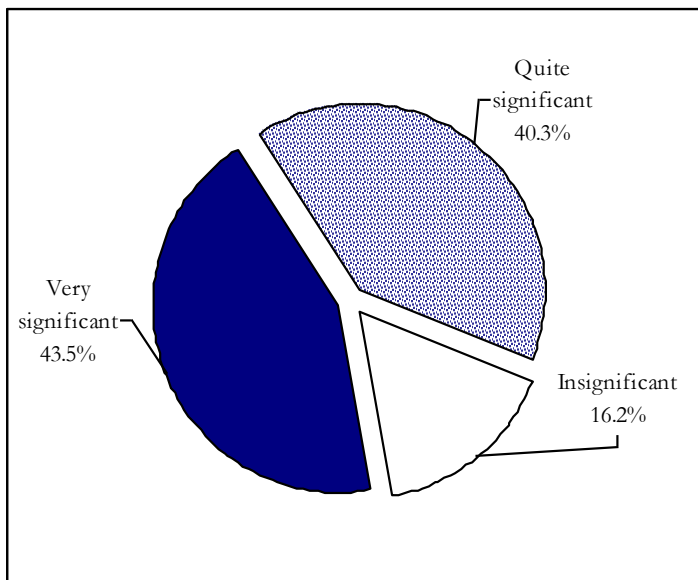
the other animals and 2 respondents even said they keep the poultry at home. Furthermore, the majority of the respondents (72.4%) said the domestic birds often roam freely in the yard. This can increase the risk of infection from migratory birds, especially at this season of the year. The fact that the poultry-keepers do not purposely isolate the birds is most probably caused by the lack of knowledge about the variety of ways the virus can be transmitted.

In case of the outbreak of the virus, the women can be considered to be at more risk of becoming infected, because commonly they are the ones to feed the birds, clean the cages and collect the eggs. The fact that only few surveyed families delegate these tasks to children is quite commendable, since the children may not be enough watchful to notice the signs of sickness and may not act adequately. At the same time, the risk that the children get infected from the poultry cannot be totally eliminated as long as the birds are allowed in the yard or in the house.

Majority of those who take care of birds have separate clothes (52.8%) and shoes (68.6%) to wear when entering the cages and 85.3% always washes hands after dealing with the poultry. On one hand, it is good that the majority of poultry-keepers take basic safety measures; however, the big number of those, who do not, is a serious concern.

We have also addressed the question of economic consequences of the outbreak for the poultry-keepers. The survey showed that if it comes to the need of extermination of the poultry, majority of the surveyed households would have serious financial problems.

Chart 4. The contribution of poultry-keeping to household budget



Nevertheless, 28.6% of the respondents claimed they have already culled some of their poultry because of the fear of infection and 54.1% said some of their co-villagers did the same.

CHAPTER 2. TESTING OF COMMUNICATION MATERIALS

LEAFLET

Coverage: Almost one third of the surveyed general population (29.0%) has seen the leaflet. However, only 13.1% of the surveyed households have received a personal copy. Extrapolated to the total number of households (778,666 households countrywide as per 2001 census) this would mean that 102,005 of the 305,000 copies of the leaflet (or 33.4%) have reached their target. Considering the calculated margin of error of 3% the total number of distributed leaflets should be adjusted to the interval of 78,600-125,400 (or 25.8-41.1%).

The **rural communities** were covered relatively better than the marz centers. The leaflet was received by 18.8% of the surveyed rural households and 11.2% of the surveyed urban households.

Table 5 presents the rough estimations of the number of leaflets received by the population of each **marz**.³

Table 5. Coverage of the marzes

Marz	Pct of households that received the leaflet	Pct of the total number of leaflets	Number of leaflets
Aragatsotn	9.0	9.2	9,347
Ararat	10.0	8.0	8,128
Armavir	31.0	13.1	13,411
Gegharkunik	9.0	8.8	8,941
Lori	2.0	3.6	3,658
Kotayk	23.0	12.7	13,005
Shirak	6.0	5.2	5,283
Syunik	12.0	10.8	10,973
Vayots Dzor	18.0	11.2	11,379
Tavush	22.0	13.5	13,817
Yerevan	2.0	4.0	4,064
Total	13.1	100.0	102,005

Speaking of the coverage of **minority and refugee populated communities**, it must first be mentioned that none of the households surveyed in Russian populated Lermontovo village (Lori marz) has received the leaflet. The leaflet was distributed to 15.0% of Kurd/Ezidi populated Tlik village (Aragatsotn marz) and 40.0% of the refugee populated Geghamasar village (Gegharkunik marz).

³ The figures are based on the proportions recorded during the survey and do not take into account the precision levels, because the sample size for each marz was relatively small and the intervals could be very big and confusing.

Content and impact: 22.8% of the respondents have read the leaflet before the interview. The remaining 72.2% were provided with a copy of the leaflet during the interview and asked to read it to be able to answer the further questions. Vast majority of the respondents gave high estimates as to the readability, understandability, amount of useful information and the design of the leaflet. Table 6 presents the breakdown of the respondents' opinions.

Table 6. Assessment of the content and design of the leaflet

Statement	Totally agree	Partly agree	Disagree
I got to know certain things that I did not know before	61.1	28.6	10.3
The ideas were very easy to understand	90.2	9.7	0.1
The information was very useful. I will follow the advices.	85.7	13.9	0.4
The coloring of the leaflet was very nice	75.1	23.7	1.2
The pictures were very nice	74.3	24.1	1.6
Even if I haven't read the text I could understand the key messages looking at the pictures	78.2	20.0	1.8

Additionally, 13.1% of the respondents found that certain pictures in the leaflet were somewhat confusing, however almost all respondents (99.8%) stated all ideas were very clear.

An interesting finding was that the first-time readers appeared to be slightly more critical when assessing the material than those who have read the leaflet before the interview. One of the possible explanations is that the second group might have forgotten the details and could have been willing to give high estimates to avoid further clarifications.

In order to objectively assess the efficiency of the leaflet as a communication tool we have tried to find out whether or not the respondents who received and read the leaflet before the interview were better informed on the issue than the others. The analysis showed that the leaflet did have a positive impact: the first group scored 7.3 points on our scale of knowledge on avian flu, whereas the second group scored 6.4 points.

TV SPOTS

Coverage: Majority of the surveyed general population (51.2%) has seen the TV spots on avian flu broadcasted on Armenian television. In **minority populated villages**, however, the proportion of those who saw the TV spots is much lower (35.0% in Tlik village and 15.0% in Lermontovo village). An encouraging finding was that 76.0% of the surveyed **children** have watched the TV spots, meaning that the spots have reached one of the most important target audiences.

Content and impact: Those respondents who have watched the TV spots were asked to list the key messages and advices that were communicated. The majority of the respondents could recall that the spots were recommending staying away from dead birds (59.0%). Smaller groups of respondents mentioned that it was advised to immediately call the emergency number in case if a dead bird is found (47.1%), stay away from birds that show various signs of sickness (42.6%), keep children away from birds (30.8%), wash hands often (26.2%), cook poultry well (23.5%), and see a doctor in case if signs of respiratory infection are revealed (20.0%). Overwhelming majority of the respondents claimed they are following all the recommendations ever since watching the spots.

POSTER

Coverage: 3000 copies of the poster should be distributed to 1400 schools and 1054 polyclinics countrywide. According to the information provided by the directors of the schools 35 of the 45 or 77.8% of the sampled schools have received copies of the poster. Additionally, the posters were distributed to 29 of 36 or 80.1% of the sampled polyclinics/primary healthcare units. This means that about 1100 of 1400 schools and 850 of 1054 primary healthcare facilities were provided with copies of the poster.

It is worth mentioning that none of the schools of the three **minority and refugee populated communities** have received the posters.

Two thirds (66.0%) of the surveyed **children** have seen the poster. Most of them (80.8%) saw it at school and 4.1% saw it in the local polyclinic.

Content and impact: The majority of the children think the poster was informative, readable, understandable, and had a good design and formatting.

Table 7. Assessment of the content and design of the poster

Statement	Totally agree	Partly agree	Disagree
I got to know certain things that I did not know before	50.1	41.3	8.6
The ideas were very easy to understand	84.4	14.1	1.5
The text was easy to read thanks to the proper formatting	77.2	20.4	2.4
The coloring of the leaflet was very nice	60.1	35.2	4.7
The pictures were very nice	44.4	44.2	11.4
Even if I haven't read the text I could understand the key messages looking at the pictures	73.8	23.2	3.0

Comparison of the avian flu related knowledge of the children who saw the poster and those who did not showed that the poster had a positive impact on the level of awareness of the target audience and can therefore be considered as quite effective.

TEACHERS' GUIDE

Coverage: According to the information provided by school administrations, only 23 of the 45 sampled schools (or 51.1%) have received copies of the teachers' guide. At that half of the schools that were not covered were **rural schools**, and, still, none of the three **minority and refugee populated communities** was covered.

Although the majority of the schools have received copies of the teacher's guide, only 35.2% of the surveyed teachers had seen it. This is partly conditioned by the fact that each school was to receive three copies of the guide, whereas many of the respondents found that each teacher should have been provided with a personal copy. Moreover, some respondents reported that their schools have received only one copy of the guide.

Content and impact: Only 24.2% of the surveyed teachers have used the guide to provide the children with necessary information on avian flu. Therefore the number of children that directly benefited from this specific communication tool is very small. On the other hand, majority of the teachers that have used the guide think the guide is quite efficient in terms of assisting the teaching process. The mean estimate that the users have given to the overall efficiency of the guide is 4.5 of 5 maximum points.

As to the content of the guide, some of the respondents made the following remarks:

- The information is not enough detailed
- The symptoms of the flu are not clear enough
- The ideas are repeated a lot
- There is more information that intends to frighten the reader than to raise the awareness level.

CONCLUSION

Analysis of the main findings of the survey allowed drawing the following **key conclusions**.

- **The most popular source of information on the topic is the Mass Media**, particularly television, which, compared to the other types of media, covers the biggest area of the country and is therefore accessible to the majority of the population.⁴
- **The population generally possesses limited information about the avian influenza.** Although the majority of the population has certain idea about the problem, there is not enough clarity as to the symptoms, ways of transmission and possible prevention of the flu. The level of awareness is particularly low among teachers and schoolchildren.
- **Lack of awareness of the doctors needs special attention.** The survey has shown that the doctors possess just as much information on avian flu as the general population, which is unacceptable, particularly in emergency situations.⁵
- **The majority of the population practices patterns of behavior that suppose rather low risk** of infection in case of a sudden outbreak. This is mostly conditioned by established habits and common sense rather than by the knowledge of the situation and understanding of the potential danger in relation to the avian flu.
- **Public awareness, social practices and patterns of behavior are closely linked with the subjective assessment of the risk** of the outbreak in Armenia and its possible consequences. Those who feel the risk is high are more informed and more careful in their actions. Potential danger lies in the “nothing-can-happen-to-me” attitude and possible carelessness of a large group of population, especially poultry-keepers.
- Of all communication materials developed by UNICEF **the posters and the TV spots have reached the biggest portion of the target audiences** (two thirds of the schoolchildren have seen the poster and more than half of the population has watched the TV spots). The Teacher’s guide reached one third of the teachers and the leaflets were received by approximately 13% of the households countrywide.
- **Minority and refugee populated communities need increased attention.** The survey has shown that the minority and refugee populations possess much less information on the topic than the local population. On the other hand, most of the communication materials have not reached any of the vulnerable communities included in our sample.

⁴ According to the information provided by Internews Armenia, Armenian Public Television (H1) has the largest coverage (covers over 90% of the territory of Armenia), followed by h2, Armenia and ALM TV channels.

⁵ The survey has covered only primary healthcare facilities, hence the statement does not apply to all health workers in general.

- The respondents in general gave high estimates as to the quality of the communication materials. Moreover, the analysis of the results of the survey showed that **the impact of the communication materials on the knowledge and practices of the target audiences is rather high**. The analysis allowed concluding that the leaflets and posters were most effective: the target audiences have received and sustained more information from these communication tools than from the others.

Based on the main findings of the survey and in the view of increasing the efficiency of the communication **it is recommended to:**

✓ **Make better use of the Mass Media**

- c) Television allows reaching out to the biggest number of people. At the same time, it seems that the messages that are communicated through the TV spots on avian flu are not very well perceived by the audience. (Although majority of the surveyed population has seen the spots, only few people could recall all advises that are communicated.) It is therefore recommended to **pay more attention to the techniques of delivery of the key messages**. In case if UNICEF finds it feasible to modify the TV spots or develop new ones, it is highly recommended that the spots are tested among the potential audience prior to putting them on air.
- d) **Additional communication tools can be utilized** for disseminating the necessary information through Mass Media. Those can include live TV programs with direct phone connection to the audience, as well as publishing of situation updates and professional advises in print media. One of the most effective tools can be the regular section of Frequently Asked Questions on Avian Flu. Questions that have been raised by the respondents of the survey can be used as a starting point. Additionally, the abovementioned information can be made available through the internet. Although there is currently plenty of information for the internet users, it is mostly in foreign languages and cannot be used by the Armenian speakers

✓ **Improve the information transmitted**

The survey has shown that the population needs more information on the symptoms, causes and consequence of the disease. Although the vast majority found the leaflets, posters and brochures understandable and readable, the amount of information transmitted could be increased. It is therefore needed to find a **balance between simplicity and informativeness**. The materials should be targeted at average reader. The data on the amount of information that the average readers have can be distilled from the results of the survey. In case if UNICEF finds it feasible publish new materials, it is highly recommended that the sample materials are tested among the target population before distribution.

✓ **Improve the coverage**

- c) The survey has shown that the coverage of the leaflets is relatively low. On the other hand, the leaflet was found to be one of the most effective tools of communication. It is therefore necessary to **continue the dissemination of the leaflet and improve the monitoring of the distribution process**. Most importantly, the second wave of the distribution [if such is envisioned] should cover the minority and refugee populated communities, which were missed during the first wave.
- d) **More effort is needed to increase the level of awareness of teachers and schoolchildren**. Improved circulation of the Teacher's guide can help both to transmit the knowledge to the teachers and children, because half of the surveyed schoolchildren stated they get avian flu related information from their teachers.

✓ **Undertake support activities to facilitate the learning**

- c) The survey allowed concluding that certain support activities must be taken in order to facilitate the apprehension and increase the impact of the communicated material. Particularly, it is essential to hold **information sessions for teachers** to ensure that they realize the importance of coaching the children, to help them understand the material, to answer any questions that they feel were not covered in the Guide, and give them hints as to how the information shall be communicated.
- d) Additional measures need to be taken to **raise the awareness of the doctors**. The means of communication and the content of communication materials should differ from those designed for "non-professional" audience. It is recommended that the doctors are provided with professional training courses and invited to issue-based workshops with participation of healthcare officials, experts of virology and epidemiology.

ANNEX 1. SAMPLE DESIGN

Community	General population	Students	Teachers	Doctors	Community leaders	Veterinary	Farmers
Aragatsotn	100	61	25	10	3	0	0
Ashtarak	60	41	20	10	1	0	0
Tlik	20	7	3	0	1	0	0
Getap	20	13	2	0	1	0	0
Ararat	100	84	30	11	3	2	0
Artashat	60	43	20	9	1	1	0
Noyakert	20	20	5	1	1	0	0
Lusarat	20	21	5	1	1	1	0
Armavir	100	80	29	8	3	2	0
Armavir	60	42	19	6	1	1	0
Pshatavan	20	19	5	1	1	0	0
Vardanashen	20	19	5	1	1	1	0
Gegharkunik	100	81	25	10	3	2	1
Gavar	60	50	20	8	1	1	1
Geghamasar	20	21	2	1	1	1	0
Karmirgyugh	20	10	3	1	1	0	0
Lori	100	89	30	18	2	2	0
Vanadzor	60	50	20	16	1	1	0
Lermontovo	20	19	5	1	0	0	0
Nor Khachapat	20	20	5	1	1	1	0
Kotayk	100	82	27	15	3	1	0
Hrazdan	60	48	17	14	1	1	0
Nor Geghi	20	19	5	1	1	0	0
Nurnus	20	15	5	0	1	0	0
Shirak	100	84	30	22	3	1	0
Gyumri	60	41	20	20	1	0	0
Arapi	20	22	5	1	1	0	0
Jradzor	20	21	5	1	1	1	0
Syunik	100	88	30	15	3	3	2
Kapan	60	45	20	13	1	1	0
Angeghakot	20	23	5	1	1	1	1
Tolors	20	20	5	1	1	1	1
Vayots Dzor	100	83	27	12	3	2	1
Yeghegnadzor	60	44	17	10	1	1	0
Agarakadzor	20	19	5	1	1	0	1
Arpi	20	20	5	1	1	1	0
Tavush	100	93	29	12	3	1	2
Idjevan	60	42	19	10	1	1	0
Getahovit	20	27	5	1	1	0	1
Lusadzor	20	24	5	1	1	0	1
Yerevan	100	98	48	45	5	0	0
Total	1100	923	330	179	34	16	6

ANNEX 2. COVERAGE OF THE COMMUNICATION MATERIALS

Community	Poster ⁶	Teachers' guide	Leaflet ⁷	TV spots ⁸
Ashtarak	50%	No	13.3%	22.0%
Tlik	No	No	5.0%	35.0%
Getap	No	Yes	0.0%	35.0%
Artashat	Yes	Yes	13.3%	26.7%
Noyakert	Yes	Yes	5.0%	55.0%
Lusarat	Yes	Yes	5.0%	50.0%
Armavir	Yes	Yes	6.7%	38.3%
Pshatavan	Yes	Yes	65.0%	65.0%
Vardanashen	Yes	No	70.0%	35.0%
Gavar	Yes	Yes	10.0%	36.7%
Geghamasar	No	No	15.0%	55.0%
Karmirgyugh	Yes	No	0.0%	35.0%
Vanadzor	Yes	Yes	1.7%	50.0%
Lermontovo	No	No	0.0%	15.0%
Nor Khachapat	Yes	No	5.0%	55.0%
Hrazdan	Yes	Yes	18.3%	71.7%
Nor Geghi	Yes	No	5.0%	100.0%
Nurnus	Yes	No	55.0%	100.0%
Gyumri	Yes	50%	3.3%	74.6%
Arapi	Yes	Yes	5.0%	60.0%
Jradzor	Yes	No	15.0%	85.0%
Kapan	Yes	50%	10.0%	18.3%
Angeghakot	Yes	No	10.0%	55.0%
Tolors	Yes	Yes	20.0%	60.0%
Yeghegnadzor	50%	50%	21.7%	43.3%
Agarakadzor	No	Yes	20.0%	20.0%
Arpi	Yes	Yes	5.0%	90.0%
Idjevan	Yes	Yes	13.3%	89.8%
Getahovit	Yes	No	5.0%	85.0%
Lusadzor	Yes	No	65.0%	65.0%
Yerevan	80%	No	2.0%	49.0%

⁶ “Yes” means all sampled schools and healthcare facilities have received the poster/guide; “No” means none of the sampled schools and healthcare facilities have received the poster/guide; “%” stands for the percent of the sampled schools and healthcare facilities that have received the poster/guide

⁷ Percent of surveyed population that received a personal copy of the leaflet

⁸ Percent of surveyed population that saw the TV spots

ANNEX 3. SURVEY QUESTIONNAIRE

PART 1. AWARENESS, ATTITUDES AND PRACTICE

1. What are your sources of information about avian flu? (Options not to be read)

1. Mass media
2. Friends/acquaintances/relatives
3. City/village authorities
4. Healthcare institutions, veterinary
- other _____
96. I do not get any information
98. Difficult to answer

2. In your opinion, how can one define whether the bird is infected with the flu or not? Which are the symptoms of the disease? (Options not to be read)

1. moves with difficulties
2. refuses to eat
3. keeps head under the wings
4. leans to ground with bill
5. gives less eggs
6. crest swells
7. dung turns into brown-green and sometimes into red
8. secretes nasal and mouth mucus
9. does not give egg
- other _____
96. there are no symptoms
98. refuse to answer
99. difficult to answer

3.1 How can birds get infected with avian flu? (Options not to be read)

1. contacting infected birds/poultry
2. contacting dead birds/poultry
3. contacting dead birds/poultry infected with avian flu
4. touching the excrements of infected birds/poultry
- other _____
99. difficult to answer

3.2 How can humans get infected with avian flu? (Options not to be read)

1. contacting birds/poultry infected with avian flu
2. contacting dead birds/poultry infected with avian flu
3. eating infected poultry products (meat/eggs)

other _____

99. difficult to answer

4. According to you, how can one get protected from avian flu? (Option not to be read)

1. avoid poultry and other birds
2. avoid dead poultry and other birds
3. not using poultry products (chicken, egg and etc)
4. cooking poultry products well
5. washing hands after touching/feeding poultry
6. cook poultry products with gloves

other _____

99. difficult to answer

5. Where from have you heard about ways to protect yourself from avian flu?

1. from Mass Media
2. doctors/veterinary
3. relatives/acquaintances/friends

other _____

99. difficult to answer

6. What additional information about bird flu would you like to get?

1. how to get protected from avian flu
2. which are the symptoms of avian flu
3. how can a human get infected with avian flu
4. what are the consequences of avian flu
5. what to do in case you happen to have symptoms of avian flu
6. are there any cases of avian flu in Armenia
7. which are the risk zones

other _____

96. do not need additional information

99. difficult to answer

7. In your opinion how big a threat is the avian flu for you, your family members, you community, and your country?

	A big threat	A small threat	Not a threat at all	Difficult to answer
7.1 You	1	2	3	99
7.2 Your family members	1	2	3	99
7.3 Your village/city	1	2	3	99
7.4 Armenia	1	2	3	99

8. Do you use ...

	Yes, often	Yes, sometimes	No, never	Difficult to answer
8.1 Poultry (meat)	1	2	3	99
8.2 Eggs	1	2	3	99
8.3 Products made from poultry and/or eggs	1	2	3	99

9. Do you use rubber gloves while preparing chicken?

1. always
2. not always
3. never

10. Do you wash eggs before using them?

1. always
2. not always
3. never

11. How did the recent conversations about avian flu impact the consumption of poultry-products in your family?

	Now we consume less than before	We consume as much as we used to before	Now we consume more
11.1 Poultry (meat)	1	2	3
11.2 Eggs	1	2	3
11.3 Products made from poultry and/or eggs	1	2	3

12. What will you do if your family member feels sick, has fever or respiratory problems?

1. I would try to cure him/her myself
2. I would ask for help from relative/friend/acquaintance
3. I would visit a doctor

other _____

99. difficult to answer

13.1 What will you do in case you see a dead bird?

1. would touch it to be sure if it was dead
2. would take it with hands in order to throw somewhere
3. would take it only with gloves in order to throw somewhere
4. would take it with hands and carry to veterinary or municipality...
5. would take it only with gloves and carry to veterinary or municipality
6. would contact local authorities such as head of the village, municipality or veterinary service
other_____
96. would not do anything
99. difficult to answer

13.2 What would you not do in case you saw a dead-bird?

1. I would not touch it
2. I would not allow people to come closer
3. I would not allow kids to come closer
4. other_____
99. difficult to answer

14. Do you keep...

	Yes	No
14.1 Poultry	1	2
14.2 Decorative birds	1	2

15. Where do you breed poultry?

1. in separate coops
2. in cattle-shed with other animals
3. in the house

15.1 Is the poultry always kept in closed areas or you sometimes let it in the yard?

1. always in closed areas
2. sometimes in the yard

16. Who is usually in contact with the poultry?

	Mostly women	Mostly men	Mostly kids
16.1 Who feeds?	1	2	3
16.2 Who cleans the coops?	1	2	3
16.3 Who takes the eggs?	1	2	3

17. Do you have separate clothes and shoes to wear when contacting with the poultry?

	Yes	No
17.1 Clothes	1	2
17.2 Shoes	1	2

18. Do you wash your hands after feeding poultry, cleaning coops and taking eggs?

1. always
2. not always
3. never

19. If you stop breeding poultry, how will that impact your family budget?

1. very negatively
2. rather negatively
3. it will almost not affect our family
4. it will not affect our family at all
99. difficult to answer

20. Did you exterminate some of your poultry being scared of avian flu?

1. Yes
2. No

21. Do you know if some of your neighbors did?

- Yes
No

PART 2. TESTING OF COMMUNICATION MATERIALS

21. Have you ever seen this leaflet?

1. Yes
2. No
3. Difficult to answer

22. If yes, did you/your family receive your own copy or you saw it somewhere else?

1. We have our own copy
2. I saw it somewhere else

23. Did you read it?

1. Yes
2. No

If the respondents did not see or read the leaflet, show it. Please take a few minutes to get acquainted with it.

24. Please, tell us to what extent do you agree with the following statements.

	Completely agree	Agree to some extent	Completely disagree	Difficult to answer
24.1 I have learnt a lot of things that I did not know before	1	2	3	99
24.2 Ideas and advises were formulated clear enough	1	2	3	99
24.3 Ideas and advises were very useful/I used (will use) them in practice	1	2	3	99
24.4 The text was easy to read thanks to the letter size and fonts	1	2	3	99
24.5 The coloring of the leaflet was nice	1	2	3	99
24.6 The pictures were attractive	1	2	3	99
24.7 Even if there was no text, it would be possible to distinguish the key messages from the pictures	1	2	3	99

24a. Are there any pictures in the leaflet that you think are confusing/difficult to understand?

1. Yes (which?) _____
2. No

24b. Are there any ideas in the leaflet that you think are confusing/difficult to understand?

3. Yes (which?) _____
4. No

25. Have you ever watched TV spots about avian flu on Armenian television?

- Yes
No
99. Difficult to answer

26. If yes, what advices do they give?

1. avoid dead birds/poultry
 2. avoid infected birds/poultry
 3. in general avoid birds/poultry
 4. do not allow kids contact with birds/poultry
 5. call the emergency numbers immediately if dead bird is found
 6. wash hands
 7. cook chicken well enough
 8. visit doctor if symptoms of flu are noticed
- other _____
99. difficult to answer

27. Ask only for the options mentioned by the respondent in Q 26. Which of those advices did you find useful? Which of them did/will you use in practice?

1. avoid dead birds/poultry
2. avoid infected birds/poultry
3. in general avoid birds/poultry
4. do not allow kids contact with birds/poultry
5. call the emergency numbers immediately if dead bird is found
6. wash hands
7. cook chicken well enough
8. visit doctor if symptoms of flu are noticed

other _____

99. difficult to answer

FOR TEACHERS ONLY

Have you ever seen this teacher's guide?

1. Yes
2. No

Where have you seen it?

1. I received a copy of that guide.
2. Someone else had one, and I saw it.
3. I have seen it in the teachers' room.
4. The school principal had one.

Other _____

99. I don't remember

Have you read the guide?

1. Yes, very attentively
2. Yes, but not very attentively
3. I have just gone through it
4. No, I haven't read it at all.

Did you use the guide to teach the students?

- Yes
No

If yes, in which grades? _____

How effective do you find it? (1= not effective at all, 5= very effective; circle appropriate)

1 2 3 4 5

If you did not find it very effective, please explain why

FOR STUDENTS ONLY

Have you ever seen this poster?

1. Yes
2. No

Where did you see it? (Options not to be listed)

1. It was on the wall in our school.
2. I have seen it in another school.
3. I have seen it in the polyclinic.
99. I don't remember.

Please, tell us to what extent do you agree with the following statements.

	Agree	Disagree	Completely disagree	Difficult to answer
I have learnt a lot of things that I did not know before	1	2	3	99
Ideas and advises were formulated clear enough	1	2	3	99
Ideas and advises were very useful/I used (will use) them in practice	1	2	3	99
The text was easy to read thanks to the letter size and fonts	1	2	3	99
The coloring of the poster was nice	1	2	3	99
The pictures were attractive	1	2	3	99
Even if there was no text, it would be possible to distinguish the key messages from the pictures	1	2	3	99

PART 3. DEMOGRAPHIC INFORMATION

28. Gender

1. Male
2. Female

29. Age _____

30. Education

1. None
2. Incomplete secondary
3. Secondary
4. Secondary special
3. Higher

31. Profession _____