

**KNOWLEDGE, ATTITUDES
AND BELIEFS
ON AVIAN INFLUENZA AMONG
THE RURAL COMMUNITY IN
KUBANG PASU**



INTRODUCTION

- Avian influenza is caused by the influenza A virus, with 27 known subtypes that ranges from low to high pathogenicity in the bird population. However, it may also infect humans and other mammals¹.
- Recently, the continuing spread of the highly pathogenic H5N1 avian influenza virus in wild and domestic birds in Asia, across Europe and other areas have raised concerns about the possibility of human to human transmission. There have been an increasing number of cases involving bird to human transmission with resultant severe and fatal human infection⁴.

OBJECTIVES

- to assess the knowledge and awareness concerning avian flu among the rural community in the district of Kubang Pasu, Kedah
- to assess the attitude towards prevention and treatment of avian flu among the rural community in the district of Kubang Pasu, Kedah
- to assess the beliefs towards avian flu among the rural community in the district of Kubang Pasu, Kedah

MATERIALS & METHODS

- Study design was a cross sectional survey
- 50 houses from 4 villages were selected via simple random sampling
- Study instrument used were the questionnaire forms which were interviewer administered
- Data analysis and processing were done using SPSS version 13
- Pre-testing of the questionnaire was done on 20 respondents in Pusat Rawatan Harian of Hospital Tengku Ampuan Rahimah (HTAR), Klang.

ERRORS & LIMITATIONS

- Study sample was limited to 4 villages hence may not be representative of the whole population
- Failure to pretest questionnaire on a similar population
- Accurate data might not be obtained due to lack of trust
- Recall bias & language barriers
- Human errors in data entry and analysis

RESULT

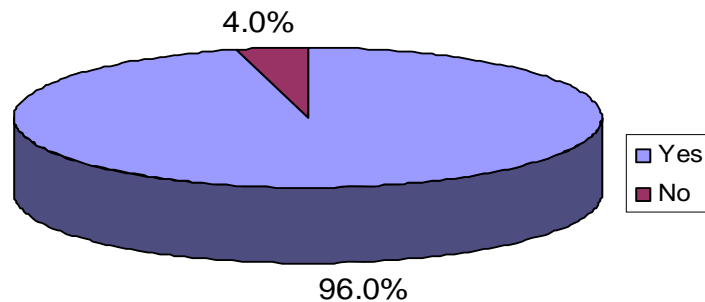
- Age group
 - <20 years old (13.0%)
 - 20-55 years old (67%)
 - >55 years old (20%)
- Gender
 - male (45.5%)
 - female (54.5%)
- Ethnicity
 - Malay (98.5%)
 - Others (1.5%)
- Religion
 - Muslim (100%)



RESULT

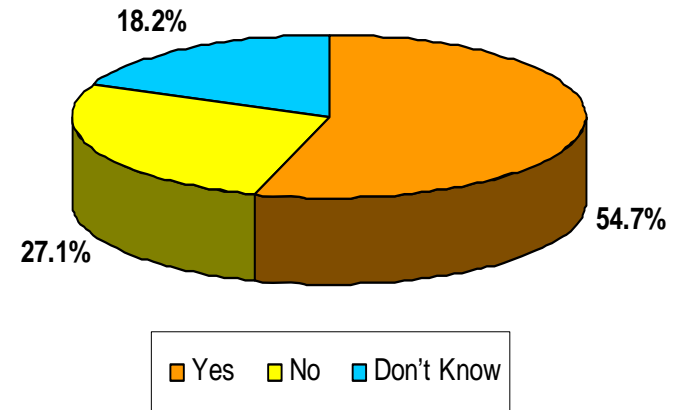
AWARENESS

Distribution of Respondents Who Have Heard of Avian Flu



n = 200

Distribution of Respondents Who Feel or Believe That They are at Risk of Being Infected with Avian Flu



n = 192

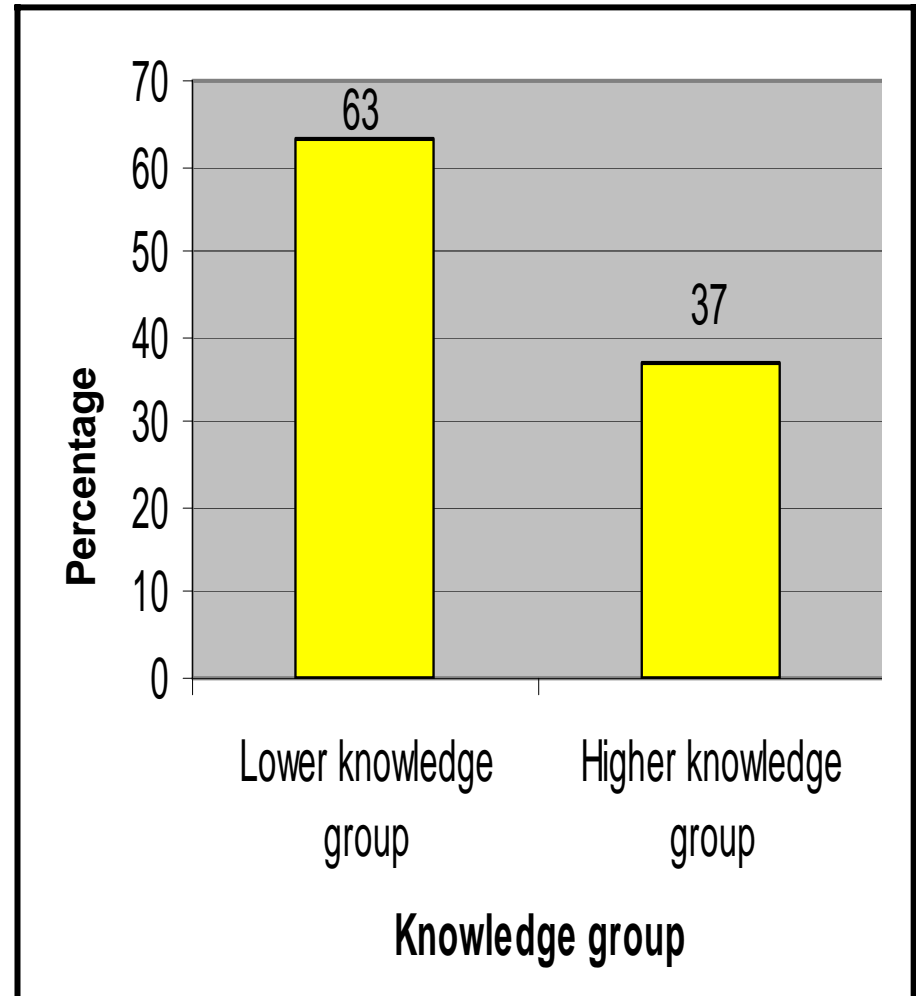
RESULT

KNOWLEDGE

Knowledge Assessment

- animals infected
- method of spread
- mode of transmission
- symptoms in infected humans and poultry
- countries affected
- possibility of spread from neighbouring countries
- fatality
- prevention

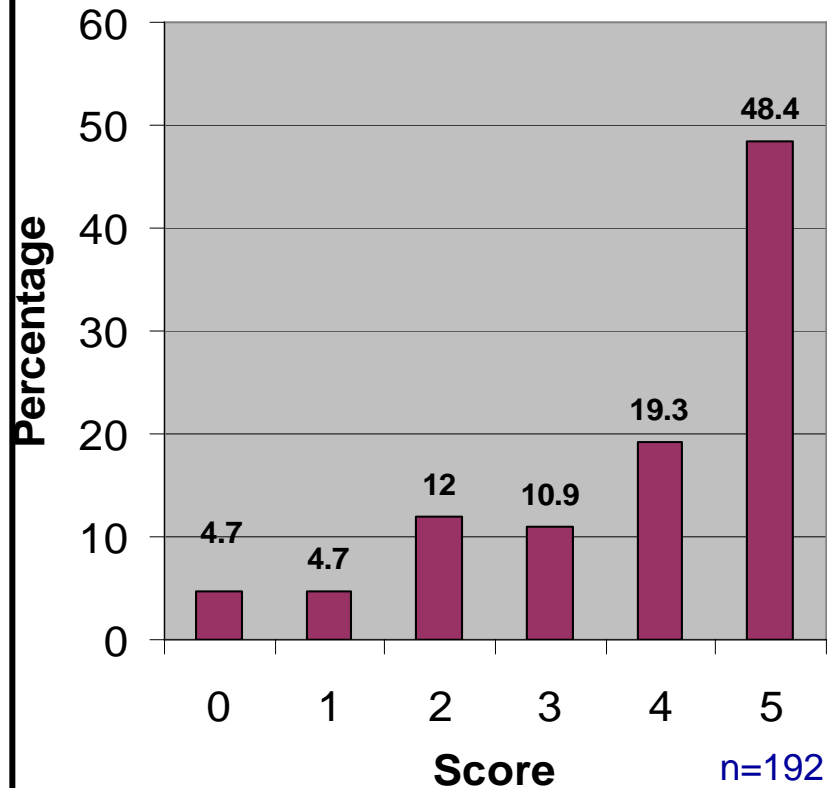
The level of knowledge on avian influenza was assessed using a scoring system based on 39 statements which were considered 'important knowledge'. The cut-off point was set at 30 to determine whether the respondent was in the higher or lower knowledge group.



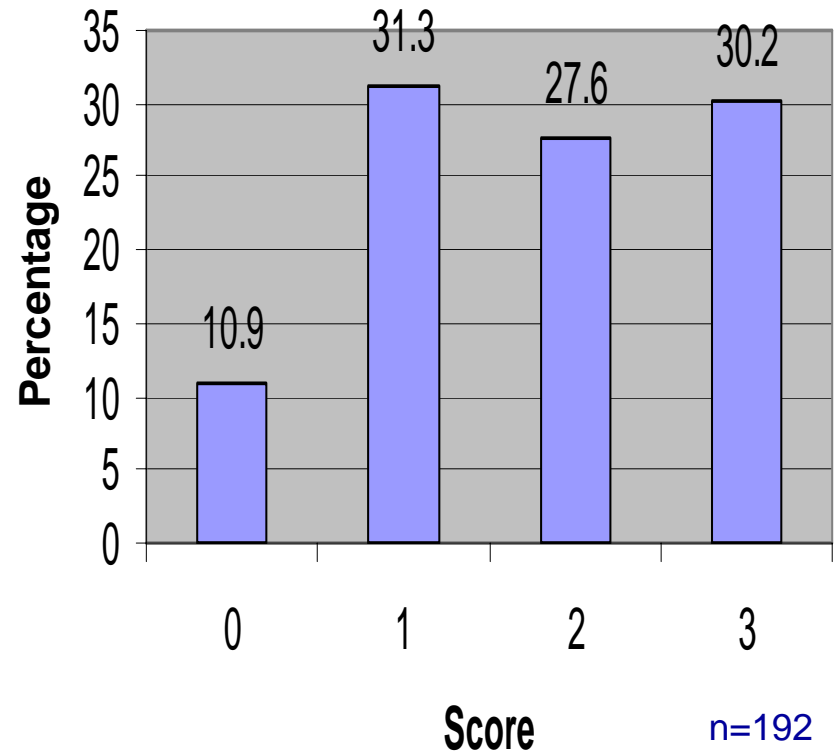
RESULT

KNOWLEDGE

Scoring scale on Animals that can be Infected with Avian Flu



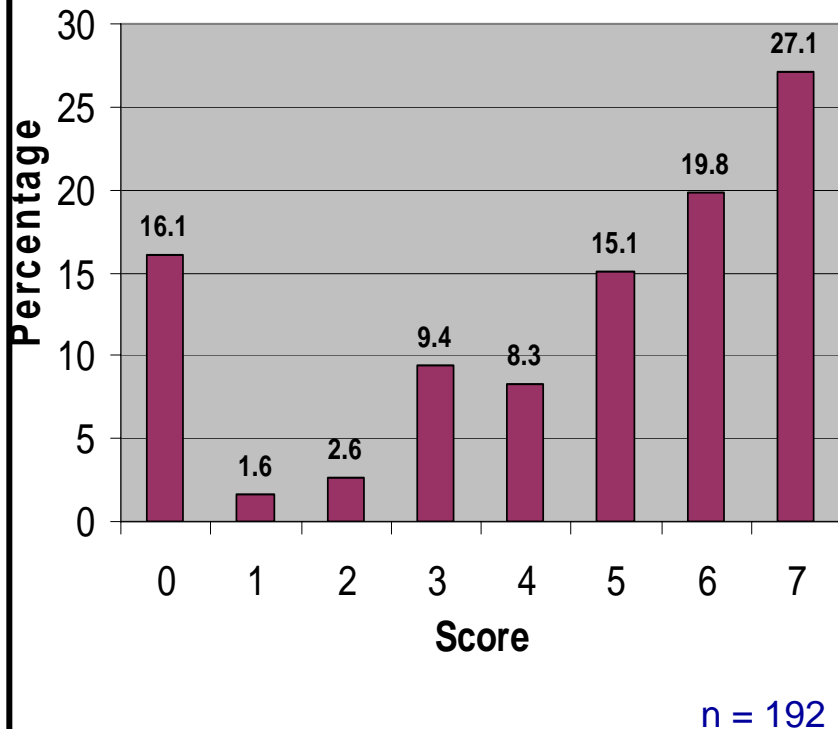
Scoring Scale on the Method of Spread of Avian Flu



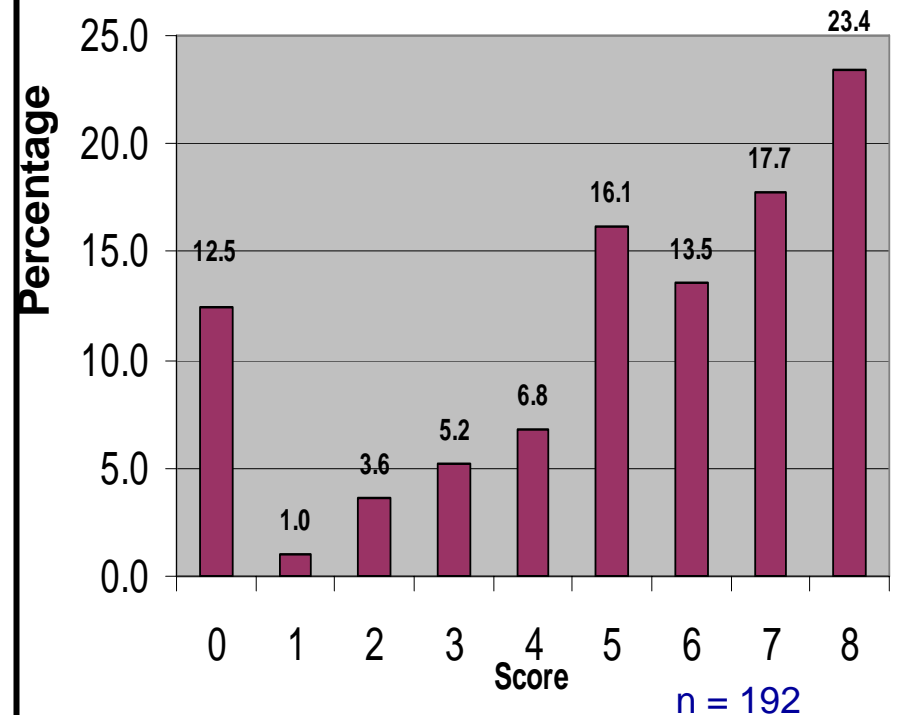
RESULT

KNOWLEDGE

Scoring Scale on Spread of Avian Flu



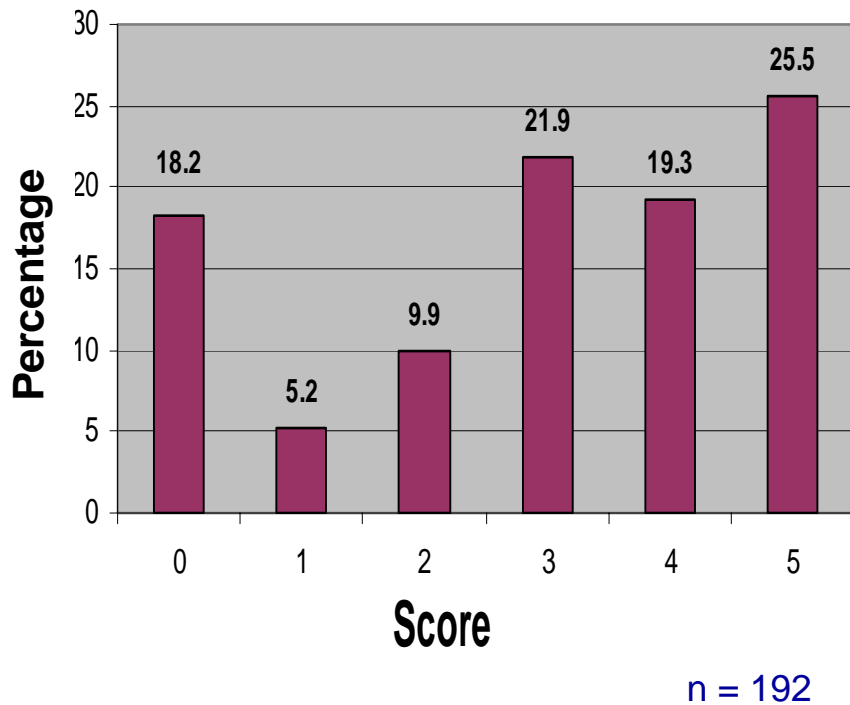
Scoring Scale on the Symptoms in Humans Infected with Avian Flu



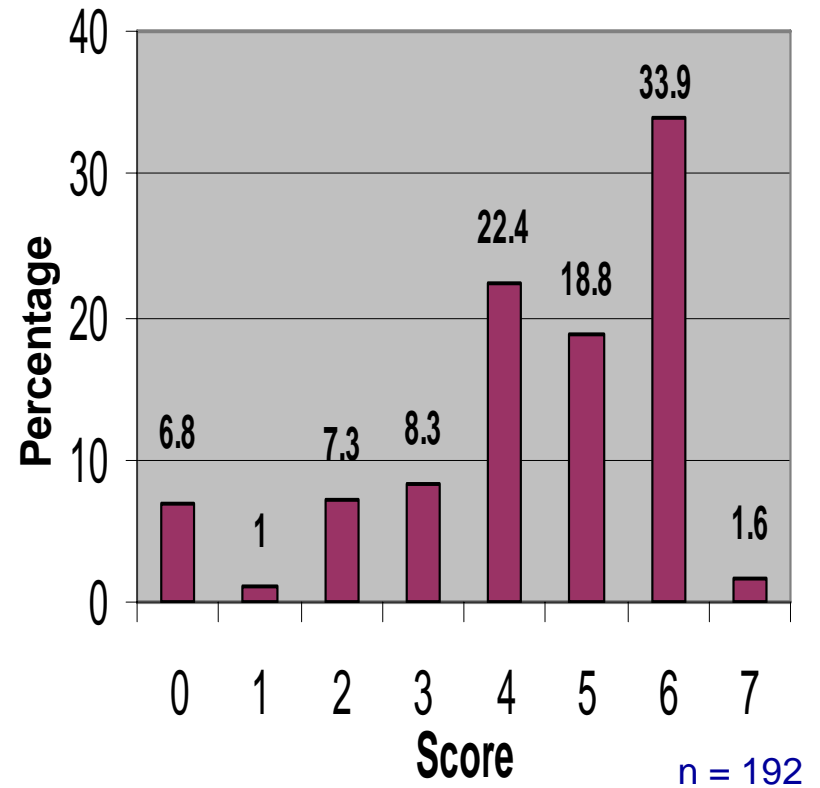
RESULT

KNOWLEDGE

Scoring Scale on the Symptoms of Poultry Infected with Avian Flu



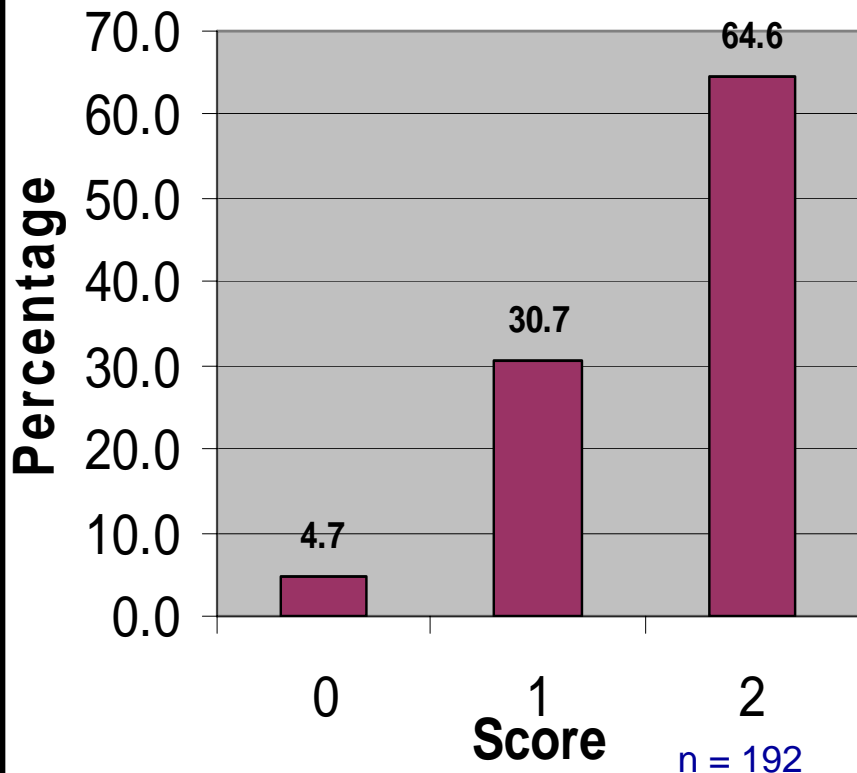
Scoring Scale On Prevention



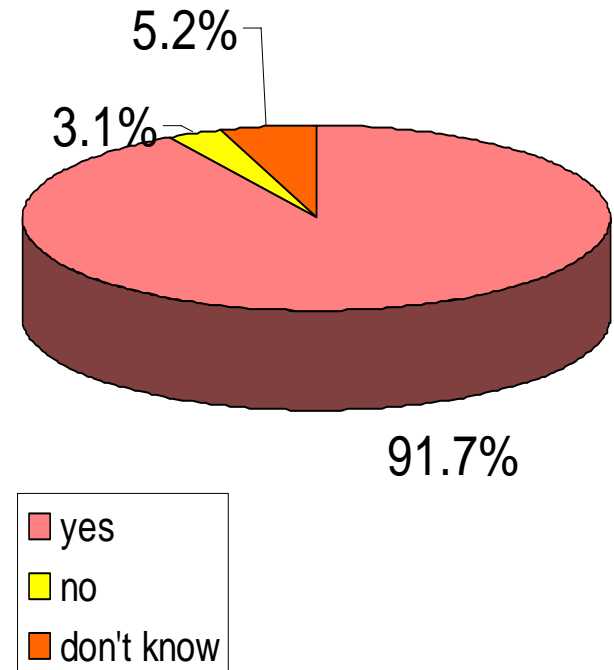
RESULT

KNOWLEDGE

Scoring Scale on the Countries Affected by Avian Flu



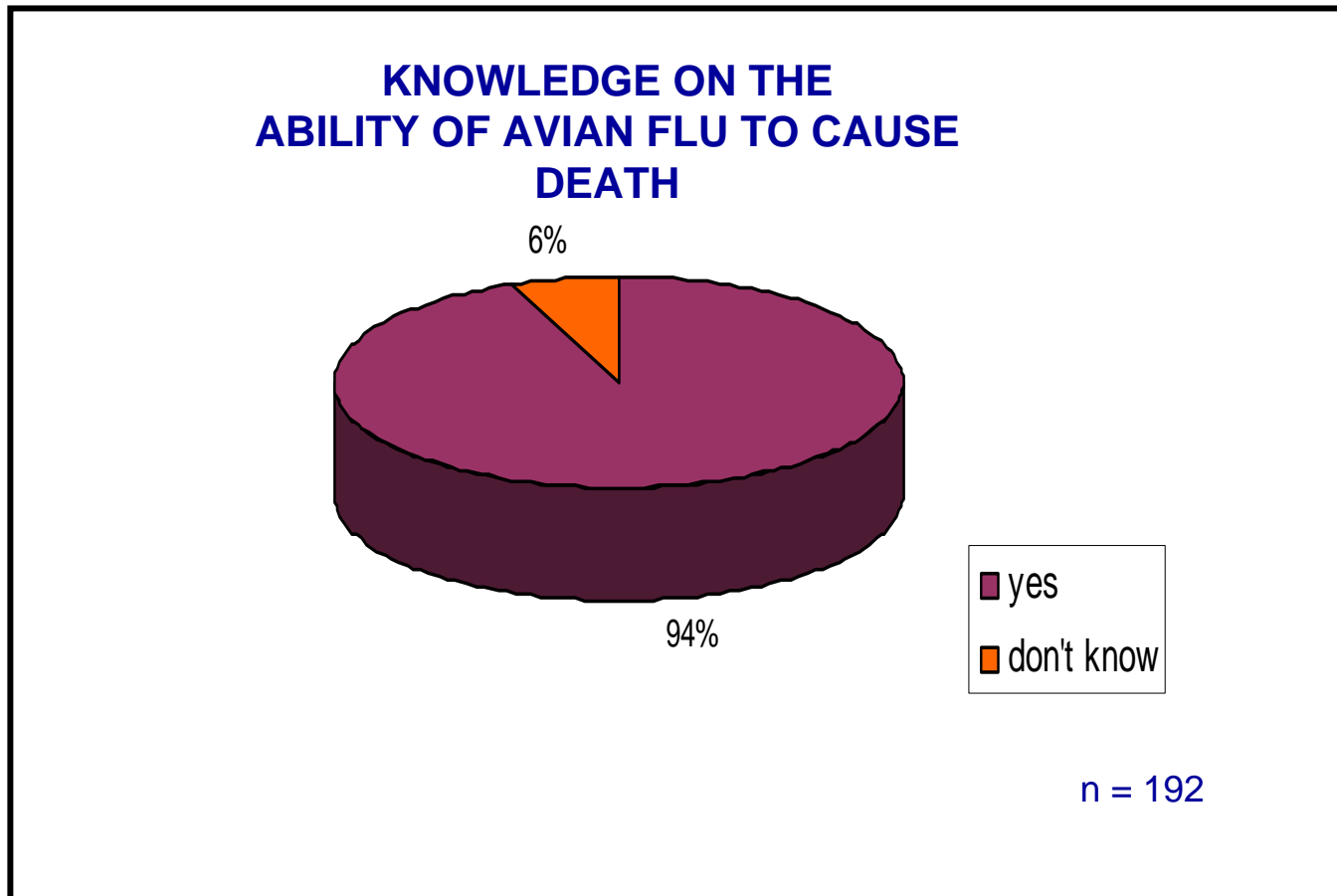
KNOWLEDGE ON THE POSSIBILITY OF SPREAD OF AVIAN FLU FROM NEIGHBOURING COUNTRIES



n = 192

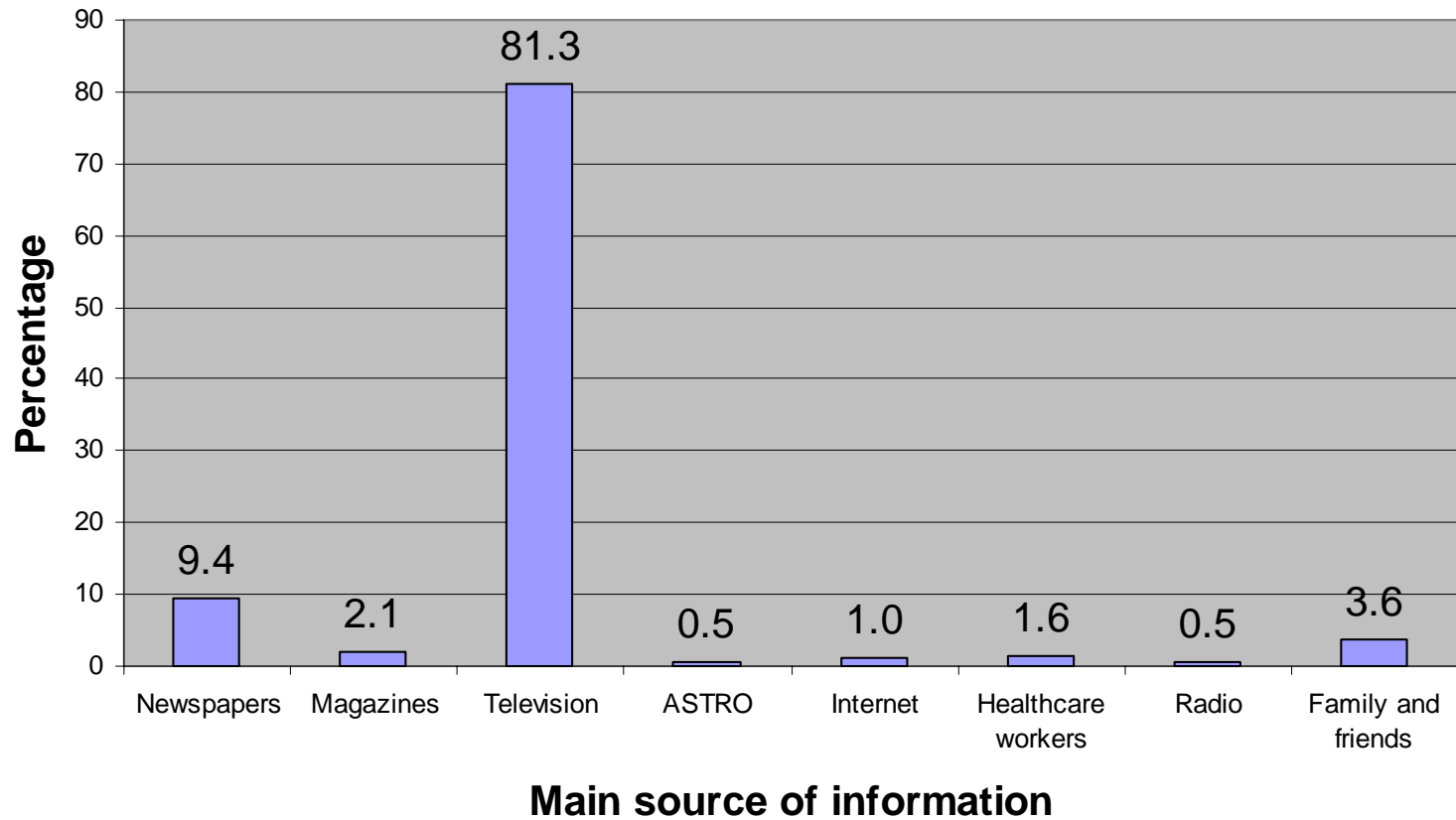
RESULT

KNOWLEDGE



RESULT

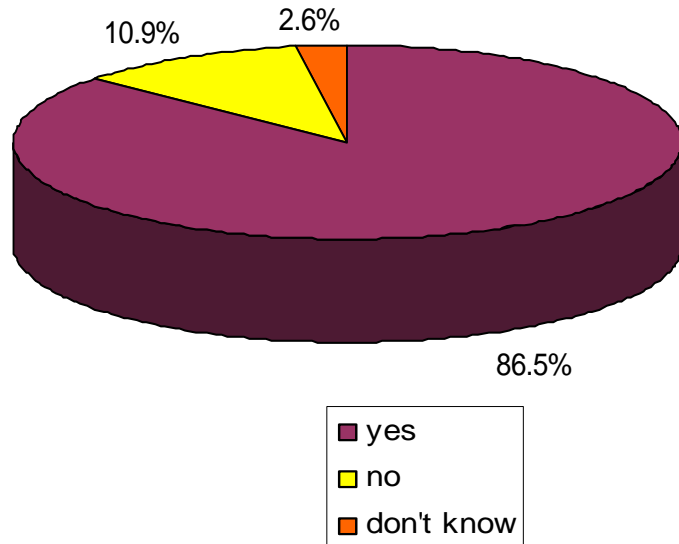
Main Source of Information about Avian Flu among the Respondents



RESULT

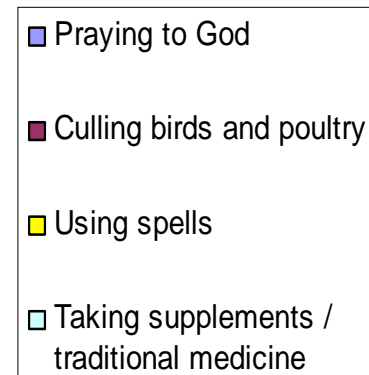
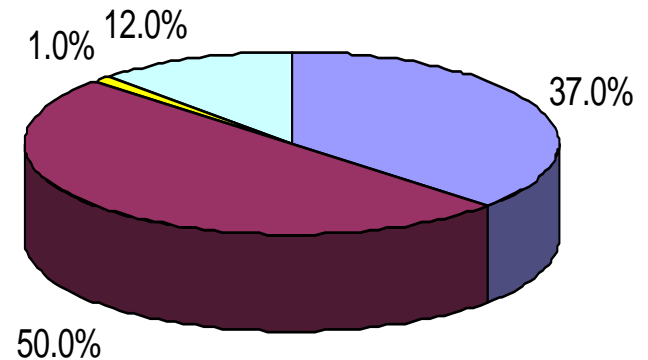
ATTITUDE

Perception of Respondents Towards Stopping Consumption of Meat and Eggs During an Avian Flu Outbreak



n = 192

The Preventive Measures That Respondents Believe in

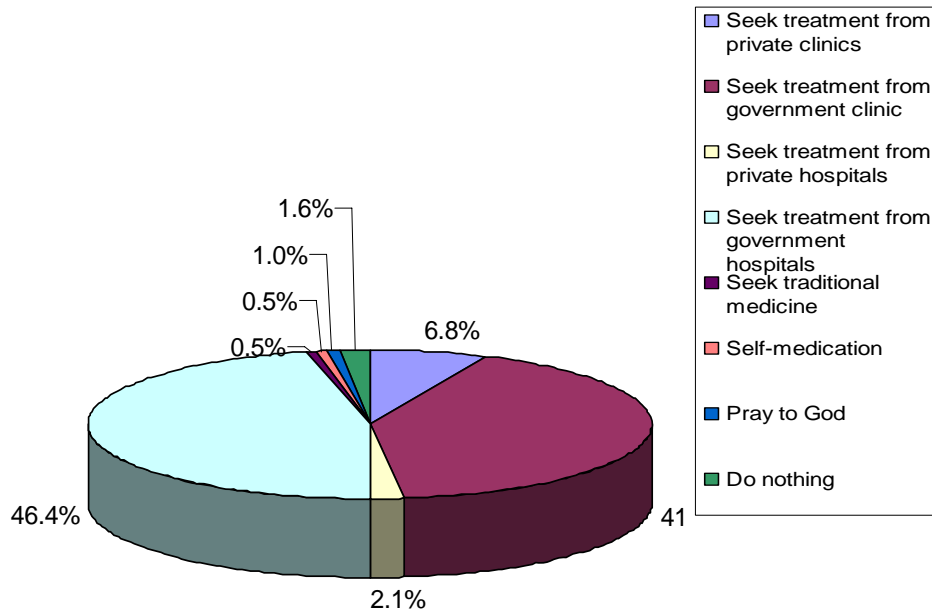


n = 192

RESULT

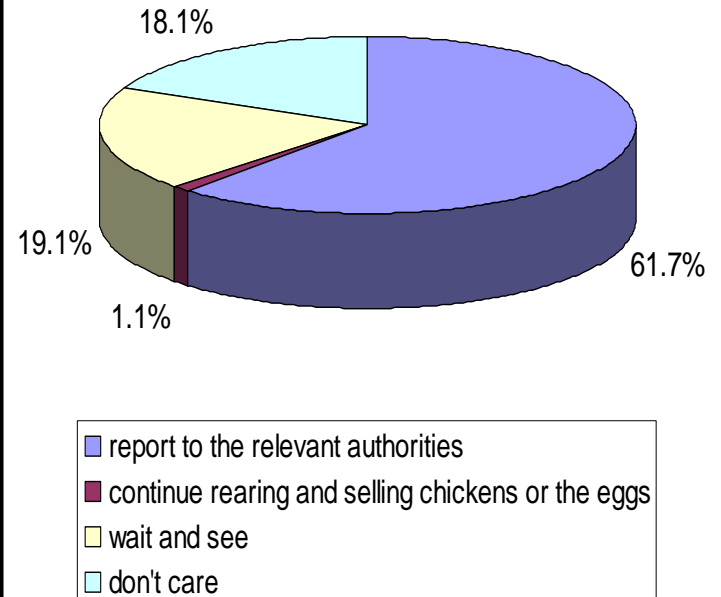
ATTITUDE

Action Taken if Respondents are Suspected of Avian Flu Infection



n = 192

Action Taken When Poultry Starts Dying or is Suspected of Contracting Avian Flu

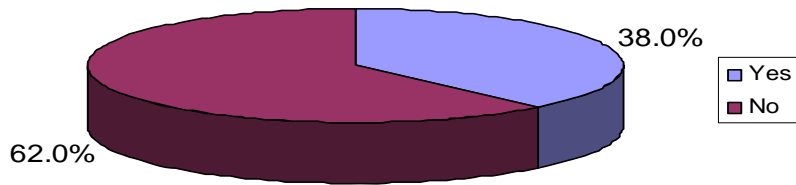


n = 94

RESULT

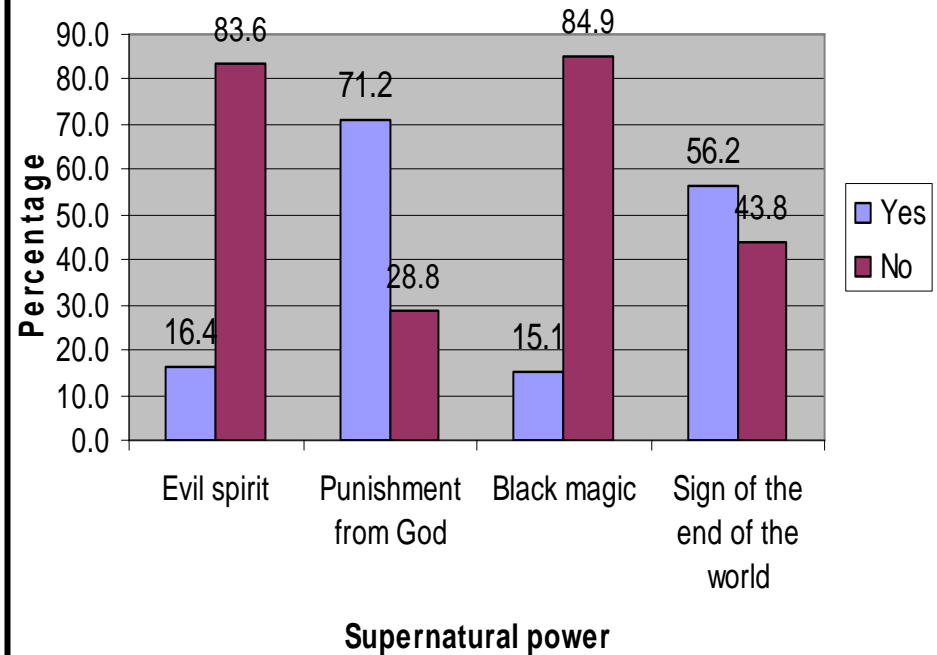
BELIEF

Respondents That Believe in a Supernatural Cause of Avian Flu



n = 192

The Types of Supernatural Causes That the Respondents Believe in



n = 192

DISCUSSION 1

AWARENESS

- 98% respondents were aware of the problem of avian influenza however only 54.7% felt that they were at risk of being infected.
- The rest either felt that they were not at risk or was unsure (27.1% and 18.2% respectively).
- This means that almost half of them are of the opinion that the problem does not affect them.

KNOWLEDGE

Animals Infected

- More than half of them were still unaware of the risks involved in handling these animals.
- It is important for them to know all so that they can take the necessary precautions.

Method of Spread

- 85.4% of respondents knew of migratory birds as a way to spread the disease from one area to another
- This is important knowledge as studies have shown that migratory birds are a significant source of international spread

Mode of Transmission

- Fairly knowledgeable
- More than half of those who have heard of avian influenza (62.0%) knew at least 5 out of the 7 important modes of transmission listed
- Among the 168 respondents who knew that humans can be infected with avian influenza, more than 65% answered correctly for each mode of transmission

DISCUSSION 2

Symptoms in Infected Humans

- More than 70% of them knew that fever, rhinorrhoea, cough and sore throat are symptoms
- These symptoms are similar with symptoms of common human influenza infections
- Thus, it would be better if they knew all the 8 symptoms listed so that they can seek treatment early
- However, only 23.4% of the 192 respondents were aware of all 8 symptoms

Symptoms in Infected Poultry

- Generally, the knowledge on the symptoms of avian influenza in domestic poultry among the respondents was unsatisfactory
- Without knowing the clinical features of an infected bird, cases of avian influenza would not be able to be detected early

Countries Affected

- 64.6% knew that Malaysia and Thailand are affected by avian influenza.

Possibility of Spread from Neighboring Countries

- 91.7% knew that avian influenza can spread from neighbouring countries.
- This is important because it affects their attitude towards preventive measures such as when they travel or when buying foreign products.

Prevention

- More than half of the respondents had a misconception that immunization can protect them when there is currently no specific vaccination for avian influenza⁷.
- Most of the respondents were aware that washing hands, cooking utensils before and after handling poultry products, and keeping away from poultry and wild birds can reduce the chances of getting infected.
- This is fairly good as these methods are the first line of prevention against acquiring the infection⁸.
- Less than 60% of respondents were aware that eating fully cooked eggs and meat were preventive measures from avian influenza as is recommended by World Health Organization⁸.

DISCUSSION 3

- There was a significant difference between the mean score for the lower and the higher educational groups ($p=0.003$), the score being higher in the higher educational group.
- However, it is important to note that the mean score for the higher educational group is 27.81, which is below the cut-off point selected. This again shows that the level of knowledge on avian influenza in the community is still unsatisfactory.

ATTITUDE

- 86.5% of the respondents replied that they would stop consuming meat or eggs if there was an outbreak of avian influenza in their area
- Association between knowledge and attitude is not significant
- have faith in modern medication - 96.4% would seek treatment at clinics or hospitals

BELIEF

- The rural community is still very much influenced by the Malay culture.

SOURCE OF INFORMATION

- The mass media was the most effective source of information on avian influenza
- Television was cited as the main source
- This means that dissemination of information is best done via television.
- However, the accuracy and depth of information conveyed may be questionable.

CONCLUSION

- Generally, most of the respondents have fairly good knowledge on avian flu
- Most of them know the preventive measures against avian flu
- Only 61.7% of the 94 respondents who reared poultry would report to the relevant authorities
- The respondents are generally receptive to the idea of culling of infected poultry as a control measure
- Television, newspapers and radio are the main sources of information on avian flu

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5. Avian Influenza. World Health Organization website. Available at: http://www.who.int/csr/disease/avian_influenza/country/cases_table_2006_05_29/en/index.html. Accessed June 15, 2006
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