CHAPTER I

INTRODUCTION

Background

In recent years, Avian Influenza (H5N1) virus in human was first known in Hong Kong. It was confirmed that there were infections of 18 individuals and 6 of them died. Human H5N1 infection was directly from chicken, without the involvement of an intermediate host (Chan P.K., 2002). In addition, "Avian Influenza (H5N1) virus is known that is caused the greatest number of cases of very severe disease and the largest number of deaths in human" (WHO, 2005). It is publicly concerned that illness and death of population in Asia, Europe and the Near East are caused by Avian Influenza (H5N1) virus (Bird Flu) (CDC, 2006). Probability, the H5N1 virus potentially adapts or recombines with other Influenza virus in which giving rise to a pandemic viral strain (WHO, 2004)

In December 2003, it was reported that eight Asian Countries, Cambodia, China, Indonesia, Japan, Lao People's Democratic Republic, Republic of Korea, Thailand and Vietnam occurred an epidemic of highly pathogenic Avian Influenza in domestic fowl and a variety of other birds caused by Avian Influenza (H5N1) virus. The epidemic was highlight as the important implications for human health (WHO, 2004). The disease was not only remained confines to animals and humans in Southeast Asia but the expanded geographical range through parts of Central Asia to Europe, Africa and the Middle East. For instance, it was reported to WHO that there were 205 laboratory-confirmed cases and 113 deaths in 9 countries between 1 December 2003 to 30 April 2006 (WHO, 2006). However, it has been shown that the occurrence of human influenza A (H5N1) in Southeast Asia has paralleled large outbreaks of Avian Influenza A (H5N1) (WHO, 2005).

Focusing on Thailand, the first outbreak of Avian Influenza (H5N1) virus was reported in a layer farm in Bangplama District, Suphan Buri Province, on 23 January 2004. Most of H5N1 cases were found in the Central, Lower-North and North-East regions of Thailand. It was founded that infected animals were native chickens (63.7%), broilers (11.6%), layer hens (10.5%), ducks (6.3%) and other avian species. Furthermore, native

chickens and free range ducks were majority cases and affected flocks were mostly small holders (less than 500 birds) (Noimo, T. and Buranathai C., 2006). "The maximum infectious avian types were domestic chicken 54.8 % and there were significantly different infections among avian types (P-value<0.05)". Suphan Buri province had the highest incidence (16.4%) of Thailand (Sirimongkolrat, S. and Chinson, P., 2006). Tiensin et al. (2005) examined that the outbreaks were concentrated in the Central, the Southern part of the Northern, and Eastern Regions of Thailand, which are wetlands, water reservoirs and dense poultry areas. More than 62 million birds were either killed by Avian Influenza (H5N1) virus or culled. Poultry populations in 1,417 villages in 60 of 76 provinces were affected in 2004. A total of 83% of infected flocks confirmed by laboratories were backyard chickens (56%) and ducks (27%). Avian Influenza (H5N1) virus from poultry caused 17 human cases and 12 deaths in Thailand. Chotpitayasunondh et al. (2005) reviewed the Avian Influenza (H5N1) virus cases from January to March, 2004 in Thailand. They found that all 12 confirmed case-patients resided in villages that experienced abnormal chicken deaths, 9 lived in households whose backyard chickens died, and 8 reported direct contact with dead chickens. Seven were children less than fourteen years of age. In Asia, a history of direct contact with sick poultry, young age, pneumonia and lymphopenia, and progression to acute respiratory distress syndrome should prompt specific laboratory testing for H5 Influenza.

In Thailand, Ministry of Public Health has launched Pnemonia and Avian Influenza Suspect Case Surveillance System since December 2004. Actually, Ministry of Public Health confirmed the first human H5N1 case was a child who lived in Suantaeng Sub-District, Muang District, Suphan Buri Province. Evidently, there was Avian Influenza pandemic in this area. Presently, it is a high risk area toward Avian Influenza pandemic. There were 12 infected cases and 8 of them died reported from another 8 provinces, namely, Kanjanaburi, Sukhothai, Pathumthani, Utharadit, Lopburi, Chaiyabhum, Nakhonrajjasrima, and Khonkhan. Takeuchi, M.T. (2006) revealed that in the rural area, 72% of participants had backyard chickens. The participants were aware of the symptoms of Avian Influenza in poultry only 6%.

In sum, there were number of infected and suspected cases found in household backyard poultry in rural areas. At Suphan Buri Province, it had the highest rate of suspected cases 432.32 per 100,000 populations from October 2005 to August 2006 within Muang District (Suphan Buri Provincial Office Report, 2006). From what has been mentioned, the need for further research into study of perceptions and health behaviors toward Avian Influenza among backyard poultry farmers at Suphan Buri Pronvince was urgent. This study conducted the survey to reveal perceptions and health behaviors toward Avian Influenza among backyard poultry farmers in the selected case study at Suantaeng Sub-District, Muang District, Suphan Buri Province, Thailand.

Research Questions

1. How are the perceptions and health behaviors toward Avian Influenza among backyard poultry farmers?

2. Is there relationship between the perceptions and health behaviors toward Avian Influenza among backyard poultry farmers?

Objectives

This study was presented its objectives in general and in specific as follow.

General Objective

To explore perceptions and health behaviors toward Avian Influenza among backyard poultry farmers

Specific Objectives

1. To identify the perceptions and health behaviors toward Avian Influenza among backyard poultry farmers

2. To determine relationship between the perceptions and health behaviors toward Avian Influenza among backyard poultry farmers

Rationale, Major Theory, Hypothesis

There are evidences of Avian Influenza H5N1 outbreaks suggest that it is obviously important and relates to the health behaviors especially; backyard poultry farmers who habitually raise their native chickens independently to native chickens nature kinds. The infected cases have been found on native chickens. Infected areas have been confirmed that they are in the case of both reservoirs and endemic diseases in Suphan Buri province and there are epidemiological evidences about many occurrences. In Thailand, the virus intestine of type is Highly Pathogenic Avian Influenza H5N1, and infected human cases perform severity symptoms with high potential risks to die. Therefore, this study aimed to explore perceptions and health behaviors toward Avian Influenza among poultry backyard farmers which referred to the Health Belief Model. As far as, this model has been concerned; perceived susceptibility and severity results from Avian Influenza. That impacts upon backyard poultry farmers' health behaviors. The selected determinants of this model focus on native chicken raising modes, cooking method and consumption of the chicken products in Suantaeng Sub-District, Muang District, Suphan Buri Province. This study was a cross-sectional descriptive study. The face-to-face structured questionnaire about perceptions and health behaviors was used among backyard poultry farmers. The results of this study can utilize in accumulating campaign for appropriate health prevention of Avian Influenza and also gradually reduce probability Avian Influenza from poultry to human.

Scope of this study

The cross-sectional descriptive study aimed to explore perceptions and health behaviors toward Avian Influenza among backyard poultry farmers. Considered aspects of socio-demographic, native chicken information, perceptions, health information receiving and health behaviors, this study conducted the survey at nine villages in Suantaeng Sub-District, Muang District, Suphan Buri Province, Thailand.

Limitation

This study explored backyard poultry farmers who had raised only native chicken. It was not included fighting cocks, ducks and birds.

Operational Definitions

Perceptions

Backyard poultry farmers' opinions focus on the susceptibility and the severity toward Avian Influenza.

Health Behaviors

The practices of backyard poultry farmers in raising native chickens have impact on their health status such as raising modes, cooking method and consumption of the chicken products.

Avian Influenza

Highly Pathogenic Avian Influenza (H5N1), which is caused by Influenza A viruses, can affect a variety of domestic and wild bird species. Infection ranges from asymptomatic to severe, depending on the virulence of the virus and the susceptibility of the avian host.

Backyard Poultry Farmers

The farmers raise native chickens within their backyard at Suantaeng Sub-District, Muang Distirct, Suphan Buri Province.

Expected Outcomes

The results of this study can be used as follow.

1. For preventive health behavior campaign among backyard poultry farmers
2. Development of Avian Influenza prevention guidelines

Conceptual Framework

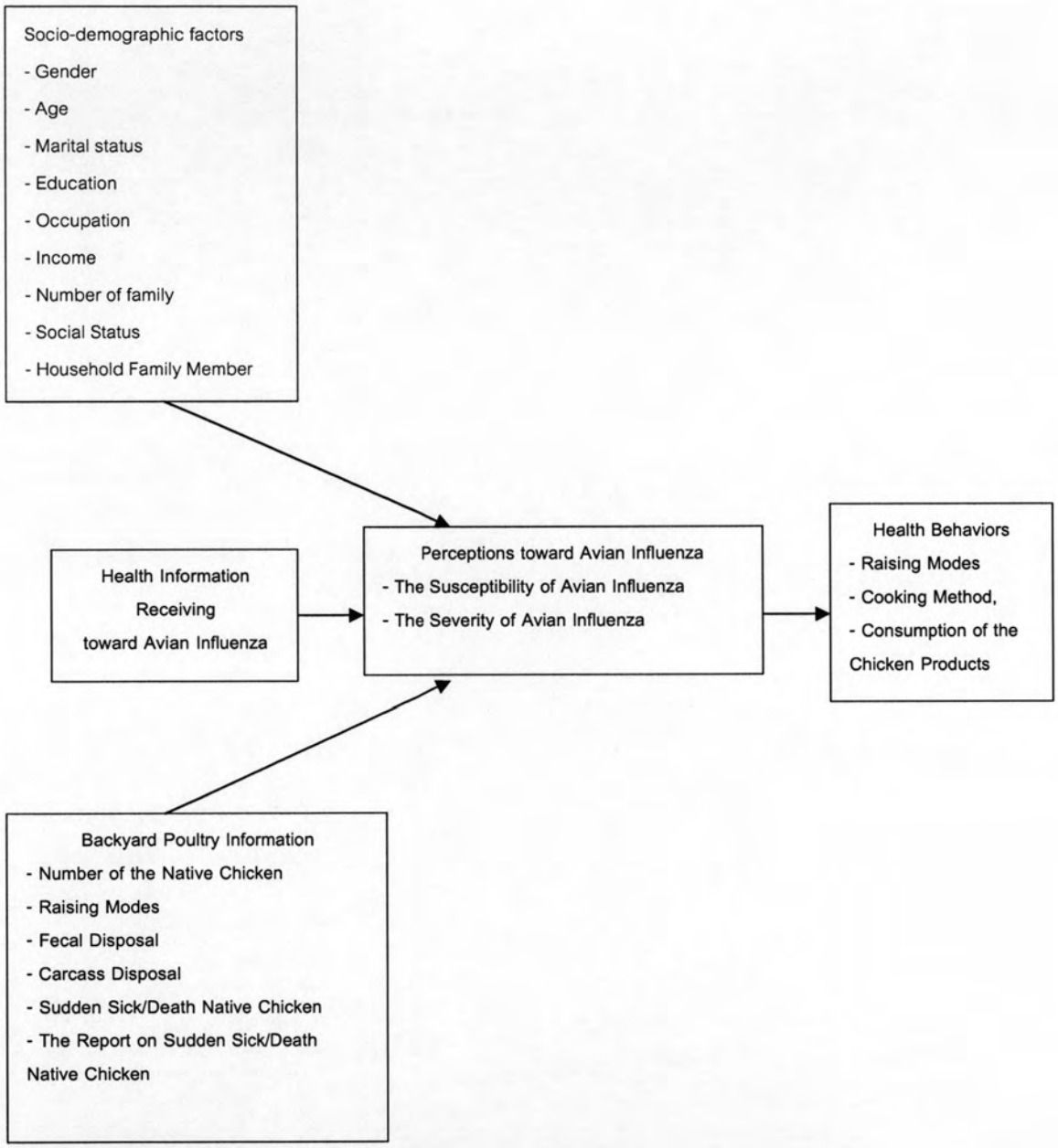

Figure 1: Conceptual Framework