

ปัจจัยที่มีผลต่อปัญหาสุขภาพที่เกี่ยวข้องกับการเดินทางของนักท่องเที่ยวชาวญี่ปุ่น

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FACTORS ASSOCIATED WITH TRAVEL RELATED HEALTH PROBLEMS
AMONG JAPANESE TRAVELERS IN THAILAND



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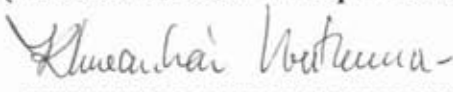
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ริชา ทาคาฮาชิ: ปัจจัยที่มีผลต่อปัญหาสุขภาพที่เกี่ยวข้องกับการเดินทางของนักท่องเที่ยวชาวญี่ปุ่นในประเทศไทย (FACTORS ASSOCIATED WITH TRAVEL RELATED HEALTH PROBLEMS AMONG JAPANESE TRAVELERS IN THAILAND)
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การศึกษาปัจจัยที่สัมพันธ์กับปัญหาสุขภาพของนักท่องเที่ยวชาวญี่ปุ่นในประเทศไทยได้ทำการศึกษาคั้งแต่เดือนกุมภาพันธ์ถึงเดือนมีนาคม 2552 โดยทำการศึกษาในนักท่องเที่ยวชาวญี่ปุ่นอายุตั้งแต่ 18 ปีขึ้นไป นักท่องเที่ยวชาวญี่ปุ่นจำนวน 394 คน ได้รับแบบสอบถามที่ได้ผู้วิจัยพัฒนาขึ้น ณ บริเวณห้องโถงผู้โดยสารขาออก สนามบินสุวรรณภูมิ จากการศึกษาพบว่า นักท่องเที่ยวชาวญี่ปุ่นส่วนใหญ่เพศชายร้อยละ 58.6 อายุน้อยกว่า 24 ปี ร้อยละ 29.7 มีการศึกษาค่ำกว่าปริญญาตรี ร้อยละ 42.7 ส่วนใหญ่นับถือศาสนาพุทธร้อยละ 53.2 เป็นโสดร้อยละ 52.2 ร้อยละ 62.2 อาศัยอยู่ในประเทศไทย 4 วัน ส่วนใหญ่อาศัยอยู่ในเขตเมืองร้อยละ 82.6 มาเที่ยวประเทศไทยเพื่อพักผ่อนร้อยละ 84.9 มีประกันสุขภาพร้อยละ 74.7 และไม่ได้ฉีดวัคซีนป้องกันโรค ร้อยละ 95.4 นักท่องเที่ยวชาวญี่ปุ่นไม่ได้ศึกษาถึงข้อมูลด้านสุขภาพก่อนเดินทางร้อยละ 93.9 ส่วนใหญ่มีทัศนคติที่ดีเกี่ยวกับความเสี่ยงในปัญหาสุขภาพ ร้อยละ 80.7 แต่มีความรู้เกี่ยวกับปัญหาสุขภาพเพียงร้อยละ 64.4 การรับประทานอาหารริมถนนเป็นพฤติกรรมเสี่ยงเกี่ยวกับสุขภาพที่พบได้บ่อยถึงร้อยละ 35.5 นักท่องเที่ยวชาวญี่ปุ่นร้อยละ 32.1 มีปัญหาสุขภาพระหว่างเที่ยวในประเทศไทย ท้องเสียและปวดท้องเป็นปัญหาสุขภาพที่พบได้บ่อยที่สุดร้อยละ 13.8 ตามด้วยโรคผิวหนัง โรคกระเพาะและโรคทางระบบทางเดินหายใจ จากการศึกษาพบว่าปัจจัยเสี่ยงที่มีนัยสำคัญที่มีความสัมพันธ์กับปัญหาสุขภาพ คือ อายุ การรับประทานอาหารริมถนน และการดื่มน้ำที่ไม่สะอาด การศึกษานี้แสดงให้เห็นว่า การรับประทานอาหารและ น้ำดื่มที่ไม่ถูกสุขลักษณะเป็นปัจจัยเสี่ยงต่อสุขภาพของนักท่องเที่ยวชาวญี่ปุ่น การให้ข้อมูลและความรู้ด้านสุขอนามัย ด้านอาหารและเครื่องดื่ม ตลอดจนการส่งเสริมสุขอนามัยของผู้ขายอาหาร และน้ำดื่ม จะเป็นมาตรการที่ควรทำเพื่อลดปัญหาสุขภาพดังกล่าว


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RISA TAKAHASHI: FACTORS ASSOCIATED WITH TRAVEL RELATED
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 ADVISOR: PROF. SURASAK TANEAPANICHSKUL, M.D.,73pp.

This cross sectional study conducted from February to March 2009 explored factors associated with travel related health problems among Japanese travelers aged 18 years and above in Thailand. The study involved 394 respondents purposively sampled at the departure lounge of Suvarnabhumi International Airport in Bangkok. A self administered pretested questionnaire was used to collected data. Association between independent and dependent variable was assessed using Chi square test and t-test. Binary logistic regression was used to control for confounding factors. P values of less than or equal to 0.05 were considered statistically significant.

Majority of the travelers were male (58.6%), aged less than 24 years (29.7%), with college/undergraduate education level (42.7%), earning less than 3 million yen annually, government/company employees, Buddhists (53.2%), single (52.2%), had stayed for 4 days (62.2%), in urban areas (82.6%), had travelled to Thailand for holiday (84.9%), had travel health insurance (74.7%), had not been vaccinated for the trip (95.4%), did not access pre- travel health information (64.5%), and did not consult a travel health clinic before travel (93.9%). Most travelers (80.7%) had high attitude score on travel health but had medium knowledge on travel health (64.4%). Eating street food was the common travel health risky practice (35.5%). Travelers who reported having developed a health problem while in Thailand were 32.1%. Diarrhea/lower abdominal pain (13.8%) was the most common health problem followed by skin symptoms (11.0%), stomach symptoms (7.7%) and respiratory problems (6.4%). Logistic regression showed association between health problems among the travelers and age ($p = 0.005$), eating street food ($p = 0.001$), and drinking water ($p = 0.001$). This study suggests that health problems among Japanese travelers in Thailand are mainly related to food and water consumption with young people being at higher risk. Providing more information about travel health to Japanese travelers, educating them on the risk of street food and unsafe drinking and promoting hygienic practices in food handling among street food vendors in Thailand are recommended.

Field of Study: Health Systems Development Student's Signature: 

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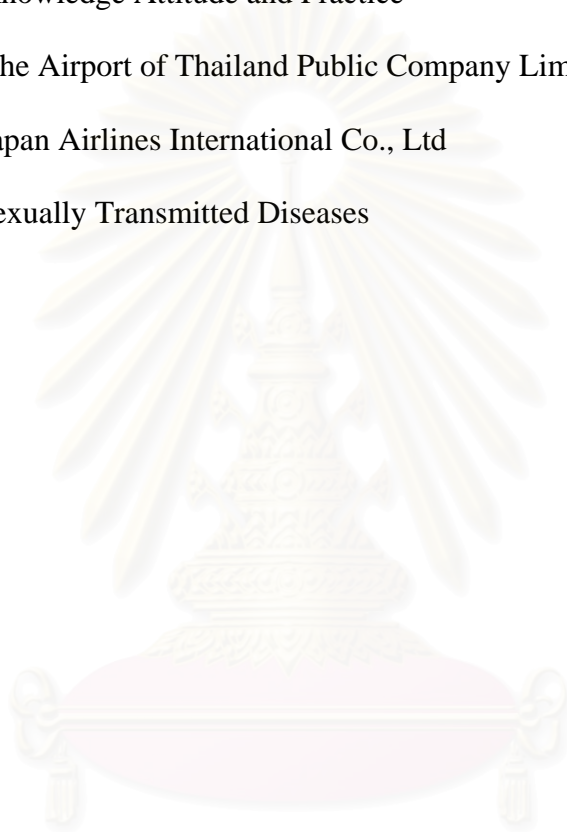
Figure 1 : Conceptual framework6



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

LIST OF ABBREVIATIONS

WHO	World Health Organization
ASEAN	Association of South-East Asian Nations
KAP	Knowledge Attitude and Practice
AOT	The Airport of Thailand Public Company Limited
JAL	Japan Airlines International Co., Ltd
STD	Sexually Transmitted Diseases



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

CHAPTER I

INTRODUCTION

1.1. Background

It is estimated that, every year, as many as 50 million people from the industrialized world cross international borders to tropical or subtropical destinations, where they encounter different cultures, social habits and economic standards, and, of the utmost importance, a different microbiological environment (Castelli, 2004).

International travel can pose various risks to health, depending on the characteristics of both the traveler and the travel. It has been identified that health risks may arise in areas where accommodation is of poor quality, hygiene and sanitation are inadequate, medical services are not well developed and clean water is unavailable (WHO, 2007). Factors which determine the risk of exposure to diseases among travelers have been identified as the destination, duration and season of travel, purpose of travel, standards of accommodation and food hygiene, behavior of the traveler and his/her underlying health, degree of endemicity in the area visited and the preventive measures taken (Steffen, deBernardis, and Baños, 2003; WHO, 2007). Getting a medical consultation before travel, assessment of health risks associated with travel and carrying sufficient medical supplies to meet the health needs of a traveler are general recommendations for any person intending to travel.

Studies have revealed low level of knowledge in travel health among at risk travelers (Castelli, 2004) and poor compliance with recommended travel health practices (Kemmerer, Cetron, Harper, and Kozarsky, 2006; Toovey, Jamieson, and Holloway, 2006; Wilder-Smith, Khairullah, Song, Chen, and Torresi, 2004). Poor

attitude towards travel health and low perception towards health risks in high risk travel destinations have also been documented among travelers (Castelli, 2004).

Currently, there are about 42,736 Japanese people (including 837 who hold permanent residency visas) who have been living in Thailand for more than three months (The embassy of Japan in Thailand, 2008). Majority of them (75.6%) live in the capital city Bangkok. Thailand has long been the top destination for Japanese people in the ASEAN region with more than 1 million Japanese travelers visiting the country annually since 1999. Although there has been no data on the average duration of Japanese tourists in Thailand, the Tourism Authority of Thailand estimated that in 2007, international tourists spend an average of about 9 days in the Kingdom (Tourism Authority of Thailand, 2008). Duration of stay in a foreign country has been identified as a risk factor for travel health problem. In 2006, about 1.3 million Japanese people visited Thailand for various purposes (Japan National Tourist Organization, 2006). It is important for Japanese people traveling abroad to be aware of travel-related health issues and observe necessary measures especially when visiting developing countries in order to reduce the risk of travel-related health problem. The sources of such information include travel agencies, the Ministry of Health, Labor and Welfare, Japanese embassies abroad, travel clinics and the Ministry of Foreign Affairs in Japan.

This study aims to identify travel-related health problems faced by Japanese travelers while in Thailand. The study will establish the level of knowledge and attitude towards travel health, as well as identify related travel health practices adopted by Japanese travelers while in the Kingdom.

1.2 Rationale

Travel medicine is a relatively new phenomenon in Asia unlike in Western countries which have a longer history of well-established travel health services (Wilder-Smith et al., 2004). Japanese travelers form the largest proportion of all travelers visiting Thailand annually. Thailand has long been the top destination for Japanese people in the ASEAN region with more than 1 million Japanese travelers visiting the country annually since 1999. International travel can pose health risks to travelers depending on the characteristics of the traveler or travel. Although Thailand is visited by many Japanese people annually, limited number of studies have been conducted in past on travel related health problems they face while in this country. Studies conducted in the past have focused only on travelers diarrhea among Japanese tourists (Suwannapong, Howteerakul, and Boonshuyar, 2006) and Japanese people living in Thailand (Mitsui, Chanyasanha, Boonshuyar, Shimada, and Moji, 2004). There is also limited information on travel health problems faced by travelers generally, in Thailand. This study will give the baseline data of travel related health problem among Japanese travelers in Thailand and associated factors. The study will be helpful in developing useful information for Japanese travelers which will contribute towards protection of their health through disease prevention. This will contribute towards achievement of quality tourism experience in Thailand. Findings from this study will add to the body of knowledge in travel health. Tourism is an important economic sector to the Thai government. In 2007, Thailand earned about 5.5 billion Baht from international tourists (Tourism Authority of Thailand, 2008). There is thus a need to safeguard the health of tourists visiting Thailand given the role the sector contributes to the Thai economy. This study is important to the Japanese

Government since prevention of health problems among its travelers will reduce medical expenses and reduce the risk of imported diseases into Japan.

1.3 Research Questions

1. What are the travel related health problems among Japanese travelers in Thailand?
2. What is the level of knowledge and attitude and practice of travel health among Japanese travelers?
3. What are the sources of information on travel health among Japanese travelers?
4. What is the relationship between socio-demographic variables and travel -related health problems among Japanese travelers?
5. What is the relationship between level of knowledge about travel health and travel-related health problems among Japanese travelers?
6. What is the relationship between attitude towards travel health and travel- related health problems among Japanese traveler?
7. What is the relationship between travel health practices and travel -related health problems among Japanese travelers?

1.4 Statistical Hypothesis

1. There is no relationship between socio-demographic factors and travel-related health problems among Japanese travelers in Thailand
2. There is no relationship between level of knowledge on travel health and travel - related health problems among Japanese travelers in Thailand
3. There is no relationship between attitude and travel -related health problems among Japanese travelers in Thailand
4. There is no relationship between travel health practices and travel -related health problems among Japanese travelers in Thailand

1.5 Objectives

1.5.1 Broad objective

1. To find out the factors associated with travel - related health problems among Japanese travelers while in Thailand.

1.5.2 Specific objectives

1. To find out the travel related health problems among Japanese travelers in Thailand
2. To find out the level of knowledge, attitude and practice of travel health among Japanese travelers
3. To find out sources of information on travel health among Japanese travelers
4. To find out the exposure to travel related health risky local activity
5. To find out the relationship between socio-demographic variables and travel - related health problems among Japanese travelers
6. To find out the relationship between level of knowledge about travel health and travel-related health problems among Japanese travelers
7. To find out the relationship between attitude towards travel health and travel-related health problems among Japanese travelers
8. To find out the relationship between travel health practices and travel -related health problems among Japanese travelers

1.6 Conceptual Framework

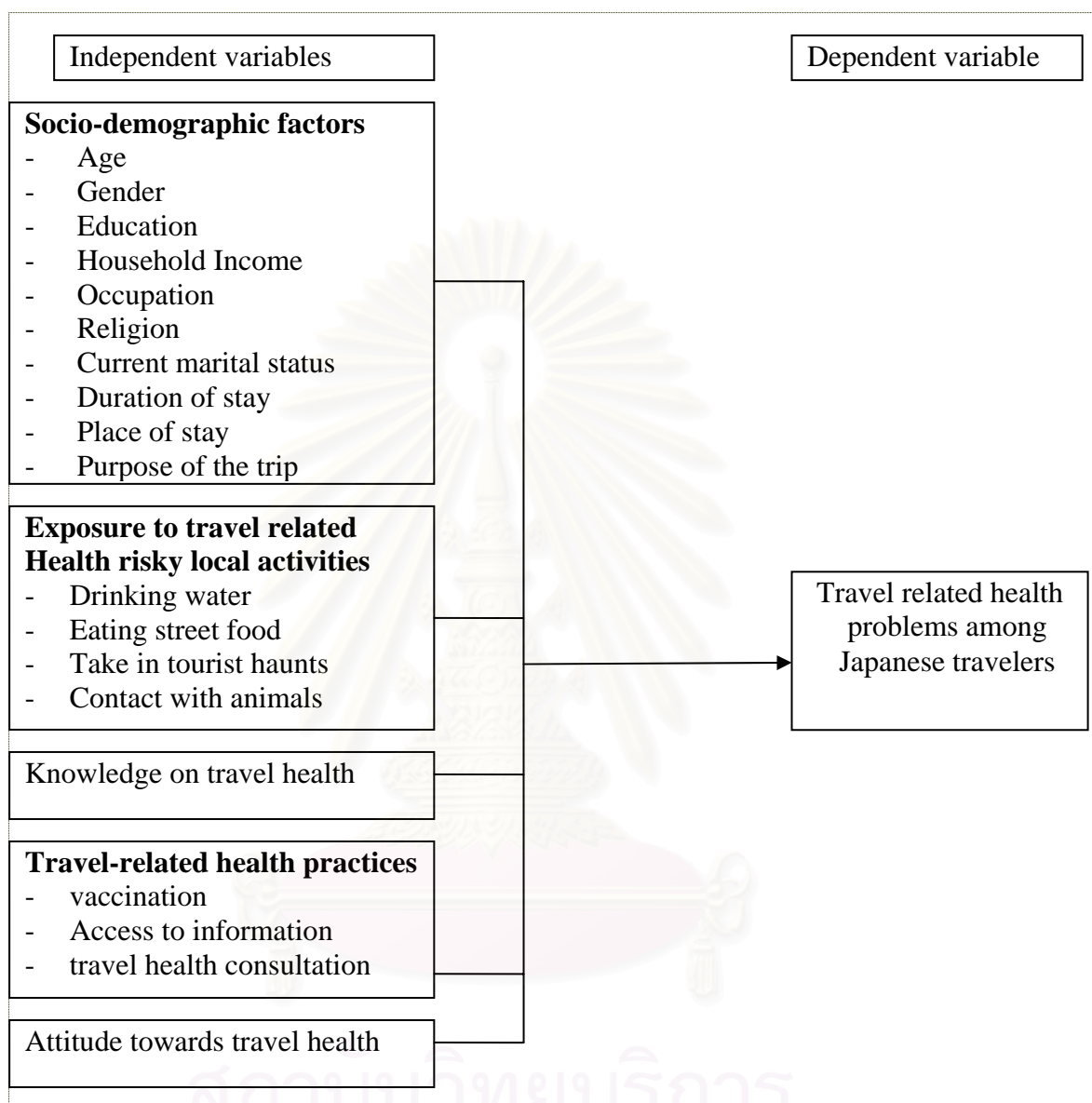


Figure 1 : Conceptual framework

1.7 Operational Definitions

1. Socio-demographic factors.

1.1. Age refers to number completed years as per the last birthday

1.2. Gender refers to either male or female

1.3. Education refers to level of schooling completed which could be middle school, high school, junior college/technical school, college or undergraduate, graduate or more

1.4. Household Income refers to amount of money earned by the household in a year

1.5. Occupation refers to the activity in which the traveler engages. Classified as student/researcher, government employee, company employee, self owned business or unemployed

1.6. Religion refers to a system of beliefs held to by the traveler, classified as Buddhist, Shinto, Muslim, Christian, or no religion

1.7. Current marital status refers to either married, single (never married, have a live in partner, divorced/bereaved) or none

1.8. Duration of stay is the length of time travelers spent in Thailand

1.9. Place of stay: Refers to either hotel (of a certain class), resort, family/relative/friend's house

1.10. Travel related health risky local activities: Refers to activities that Japanese tourists have done or participated in while in the Kingdom which could predispose them to health problems (street food, sexual activity, casual sex, drinking unbottled/unboiled/unfiltered water, activities involving contact with animals, and tattoo)

- 1.11. Street food: Refers to either food which is cooked or sold on the street by mobile food vendors who don't have running water
2. Travel -related health problems among travelers: Involves self-reported health problems outbound travelers picked up while in Thailand. This excludes any medical conditions that travelers have had including chronic conditions, prior to an arrival in Thailand.
 3. Knowledge on travel health: Possession of correct information about travel health.
 4. Attitude on travel health: Perceptions on one's health in the context of travel
 5. Travel-related health practices: Activities performed by travelers to avoid infections whilst on trip abroad

CHAPTER II

LITERATURE REVIEW

2.1 Health risks of international travel

Travelers' diarrhea has been identified as the most frequent ailment of visitors to countries with poor hygienic standards with incidence rate ranging from 25–90% in the first 2 weeks abroad. The risk of travelers' diarrhea is far less in travelers originating in a high risk country, as some immunity develops. Malaria is an important risk for travelers going to endemic areas. Without chemoprophylaxis, the monthly incidence is high in some destinations, among them frequently visited tropical Africa where 80-95% of the infections are due to *Plasmodium falciparum*. The incidence rates are lower in most endemic areas of Asia and Latin America where *Plasmodium vivax* predominates. The risk is nil in all capital cities of South America and SE Asia, as well as in many frequently visited tourist destinations. The diseases preventable by immunization will be discussed in a separate paper (Vaccination priorities; page 175). Sexually transmitted diseases occur frequently, as some travelers engage in casual sex, approximately half of them without being protected by a condom (Steffen et al., 2003)

In a study of the health problems of Americans traveling to developing countries, it was found that many travelers experienced adverse health events during and after travel to the developing world with diarrhea, respiratory illness, skin disorders, and febrile syndromes being the most common health problems experienced (Hill, 2000). A study of the health risks encountered by corporate travelers, found that 35% of travelers developed diarrhea and 29% reported respiratory illnesses, with 12% seeking medical attention for their problems

(Kemmerer et al., 2006). In a study of the health risks amongst Hong Kong Chinese travelers, with Thailand being the second most common travel destination (for 14% of travelers) after mainland China, overall, 16% of the respondents had developed health (mainly alimentary and respiratory) problems during or after their travel (Abdullah, McGhee, and Hedley, 2001).

A study among Japanese tourists visiting Thailand showed that 21.3% developed diarrheal illness, and of them, 5.0% had classical travelers' diarrhea, 11.8% had mild travelers' diarrhea (Suwannapong et al., 2006).

2.2 Knowledge, attitude, and practice on travel health

Data from previous surveys on travel health have suggested that at risk travelers have poor overall knowledge concerning the risk of infection and preventive measures, and rates of adherence to the World Health Organization recommendations are far from optimal (Castelli, 2004).

A survey on prevention of infectious diseases conducted in Europe (Zuckerman, Castelli, van Damme, Walker, and Steffen, 2006) showed that more than one-third of travelers surveyed had not sought pre-travel health advice. The study further found out that only a minority were able to demonstrate that they had been immunized as per the World Health Organization or national recommendations. Respondents often misperceived both the risk of malaria at the destination and recommended preventive measures (Zuckerman et al., 2006). A similar study done in Africa documented considerable deficiencies in KAP with regard to travel vaccinations and malaria protection in travelers departing Johannesburg International Airport with the World Health Organization immunization guidelines being followed poorly (Toovey et al., 2006). Another study conducted in Australasia showed that

only 31% of travelers in this region had sought pre-travel health advice and only 4% sought travel health advice from the travel medicine specialist. The risk of vaccine-preventable infectious diseases and malaria among these travelers at the destination country was perceived to be low. The study also revealed fewer than 5% of travelers having been vaccinated in preparation for their trip with the most frequent travel vaccinations being for hepatitis A and B (Wilder-Smith et al., 2004). A study among cooperate travelers has shown that 43% of those traveling to malarious regions did not comply with antimalarial recommendations and only 51% used health kits provided (Kemmerer et al., 2006). In a study in Hong Kong, only 8% of travelers had received pre-travel health advice and 59% reported taking some form of precaution against travel-related illness (Abdullah et al., 2001). Forty percent of the respondents perceived themselves as being at risk of future travel-related illness.

High rate of HIV related risk behaviors has been documented among Japanese tourists visiting Thailand (Nemoto, Yokota, Hanafusa, and Wada, 2002). A recent study has shown that Japanese expatriates have a tendency of not visiting hospital when they have no subjective or objective symptoms (Sakai, Wongkhomthong, Murui, and Laobhripatr, 2008).

A study has shown that only 3.3% of Japanese tourists in Thailand had good food and drink related behaviors, with 75.4% having moderate level of perception of diarrhea related to drinking and eating (Suwannapong et al., 2006). These studies reveal that much more need to be done to fill the knowledge gaps among travelers, correct their attitude, and improve their level of practice related to travel health. But at the end of the day travelers still have personal responsibility for their own travel health safety.

2.3 Japanese travelers in Thailand

Currently, there are about 42,736 Japanese people (including 837 who hold permanent residency visas) who have been living in Thailand for more than three months (The embassy of Japan in Thailand, 2008). Majority of them (75.6%) live in the capital city Bangkok. Thailand has long been the top destination for Japanese people in the ASEAN region with more than 1 million Japanese travelers visiting the country annually since 1999. Although there has been no data on the average duration of Japanese tourists in Thailand, the Tourism Authority of Thailand estimated that in 2007, international tourists spend an average of about 9 days in the Kingdom (Tourism Authority of Thailand, 2008). Duration of stay in a foreign country has been identified as a risk factor for travel health problem. In 2006, 1,311,987 Japanese people visited Thailand for various purposes (Japan National Tourist Organization, 2006). It is important for Japanese people traveling abroad to be aware of travel-related health issues and observe necessary measures especially when visiting developing countries in order to reduce the risk of infection.

2.4 Sources of travel health information

Generally travelers get travel health and safety information from various sources which include travel clinics, public health, general practice and the industry. The industry source of travel health and safety advice include the airlines, airlines travel agents, travel insurance companies, travel associations, pharmaceutical manufacturers and travelers' aid organizations (Leggat, 2006). A study in Quebec on the role of travel agencies in prevention of health problems among travelers, however, showed that the agencies' main role was to recommend to travelers on the need to consult a travel clinic before departure (Colette et al., 2006). Travel clinics have

demonstrated significant reduction in the morbidity of illness for travelers and a reduction in the burden on general practices through the pre-travel advice and prophylaxis that they provide (Reed, McIntosh, and Powers, 1994).

The Japanese Ministry of Health, Labor and Welfare, provides advice on travel health to Japanese people traveling to foreign countries. This information is mainly available on the ministry's website. Travel health information is also available from the Ministry of Foreign Affairs and the Japanese Embassy in each country, including Thailand.

2.5 Content of travel health messages for Japanese travelers

For Japanese travelers to Thailand, the Ministry of Health, Labor and Welfare (Ministry of Health Labor and Welfare, 2008) recommend that travelers be aware of the following infectious diseases.

Table 1 Diseases Japanese travelers should be aware of while visiting Thailand

Disease transmitted through food and water	Diseases transmitted through insect bites	Others
Dysentery	Malaria	Hepatitis B
Amoebic dysentery	Dengue fever	Rabies
Hepatitis A and E	Japanese encephalitis	HIV
Cholera	Filaria	Tetanus
Food poisoning	Leishmaniasis	
Parasitic infections		
Typhoid		

Bird flu and dengue fever are diseases that the Ministry has advised Japanese travelers to be aware of in 2008.

Information from the 2002 quarantine report from each Japanese airports showed that 1,032 Japanese travelers from Thailand suffered from infectious diseases with majority of them suffering from food poisoning. The health problems were self-reported. Travelers who reported ever having diarrhea were screened for cholera and if found negative were classified as food poisoning. In the same year, the data from Infectious Disease Surveillance Center showed that 48 people had suffered from infectious diseases (excluding food poisoning) while in Thailand. About 1.2 million Japanese travelers visited Thailand in 2002. The data is summarized in table 2 below

Table 2 Cases of Infectious diseases among Japanese travelers in Thailand

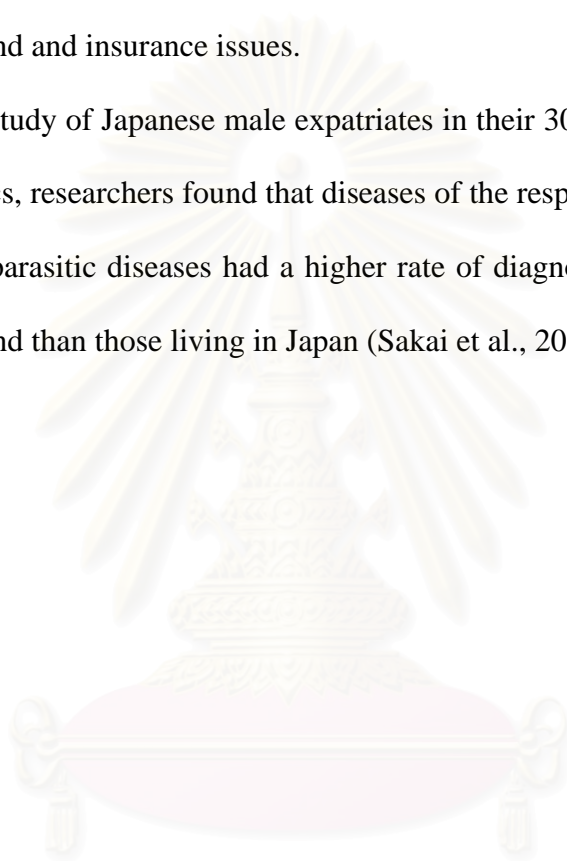
Disease	Quarantine report	Infectious disease surveillance center
Cholera	2	7
Dysentery	26	29
Food poisoning	992	-
Falciparum malaria	1	1
Tertiary malaria	1	1
Dengue fever	10	10
Total	1,032	48
Number of travelers	1,239,421	

The Ministry further provides general guidelines for prevention of infectious diseases for Japanese travelers while in Thailand as follows:

- Avoidance of all raw food including cut fruits, juice, vegetables and sea food irrespective of the hotel or restaurant
- Drinking only mineral or boiled water and avoidance of ice.
- Avoidance of dogs and cats as some of them could be infected with rabies
- Avoidance of unprotected sexual intercourse
- Up to date vaccinations against yellow fever, Hepatitis A, tetanus, Japanese encephalitis and rabies.

Various tourist guide books (JTB Group, 2005; Shobunsha, 2006; Suzuki, 2003) have a section on travel health. The range of information provided in these guide books varies slightly with (Suzuki, 2003) providing more comprehensive information covering weather, infectious diseases, drinking water, sanitation, hospitals and drug stores in Thailand and insurance issues.

In a recent study of Japanese male expatriates in their 30s to 50s who consulted at outpatient clinics, researchers found that diseases of the respiratory system and certain infectious and parasitic diseases had a higher rate of diagnosis among Japanese men living in Thailand than those living in Japan (Sakai et al., 2008).



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CHAPTER III

RESEARCH METHODOLOGY

3.1 Study design

This is a cross sectional study

3.2 Study Area

The study was based at Suvarnabhumi Airport, Samutprakarn, Thailand

3.3 Study Population

The study population was Japanese out-bound travelers in Thailand.

3.4 Sampling Technique

The Japanese travelers were purposively and quota (up to 400) sampled to participate in the study after going through immigration and/or while waiting for their flight at the departure lounges at the airport.

3.5 Sample Size

A total of 400 travelers were interviewed. The sample size was calculated using the formula (Daniel, 2005)

$$N = \frac{Z^2 PQ}{\Delta^2}$$

Where Z at α 0.05 which is 1.96

P is probability of having disease which was be taken at maximum variance as 0.5

Q is 1-P which is 0.5

Δ is acceptable error or precision which was set at 0.05

Substituting the values in the formula, the sample size was arrived at as:

$$\frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

= 384 respondents rounded up to 400.

Out of the 400 participants approached 394 completed the questionnaires giving a response rate of 98.5%.

3.6 Measurement Tools

A structured questionnaire was developed to collect data on variables relevant to travel health. The variables included socio-demographic information, travel health knowledge, attitude, and sources of information on travel health and travel health practices. Two experts reviewed the questionnaire to ensure content validity. The questionnaire was pretested for reliability. A Cronbach's alpha of 0.733 for knowledge and 0.718 for attitude were calculated (appendix G). The questionnaire was translated into Japanese by an expert with a proof of valid check.

3.7 Inclusion criteria

All out- bound Japanese travelers aged 18 years and above had stayed in Thailand for a minimum of 4 days and maximum stay of 90 days were included in the study.

3.8 Exclusion criteria

Those not willing to participate in study didn't have time to be interviewed, traveled to Thailand for medical reasons were excluded from the study.

3.9 Data Collection

Data was collected through self- administered anonymous questionnaires from February to March 2009. The questionnaires were checked for completeness and where necessary clarifications were sought from respondents

3.10 Data Analysis

Data were analyzed electronically using a statistical package. The following statistics will were applied:

Descriptive statistics: the socio-demographic characteristics and general information were presented by frequency, percentage, mean and standard deviation.

Inferential statistics: Bivariate analysis of the relationship between the independent variables and the dependent variable was done using Chi – square test and independent sample t- test. To control for confounding factors, multivariate analysis was done using binary logistic regression. Variables which had p values of less than 0.2 were included in multivariate analysis.

Knowledge on travel health was assessed by asking participants to respond to 7 multiple choice answer questions. Each question had maximum of two scores giving a possible overall maximum score of 14.

Attitude towards travel health was assessed by asking participants to respond by ticking on whether they strongly agreed, agreed, undecided, disagreed or strongly disagreed with 8 statements related to travel health. Scores were awarded ranging from 1 to 5 based on the response to the specific question on attitude. The maximum possible score from the 8 questions was therefore 40 while the minimum score one could attain was 8.

3.11 Ethical Consideration

The study protocol was approved by Chulalongkorn University Ethical Review Committee. Permission to conduct the study at the airport was obtained from the Airports Authority of Thailand. Further permission to enter the passenger departure lounges was obtained from Japanese Airlines.

Before administering the questionnaire, the purpose of the study was clearly explained to the subjects and that they were free to exit from the study at any time. Their informed consent was then obtained. The questionnaires remained anonymous and information collected was kept confidential.



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CHAPTER IV

RESEARCH RESULTS

In this chapter the results of the study are presented under the following subheadings

- 4.1 Socio-demographic characteristics of Japanese travelers in Thailand
- 4.2 Travel related health practices
- 4.3 Travel related health risky local activities
- 4.4 Attitude on travel health
- 4.5 Knowledge on travel health
- 4.6 Health problems reported by Japanese travelers in Thailand
- 4.7 Solution to health problems faced by Japanese travelers
- 4.8 Association between socio-demographic factors and travel related health problems among Japanese travelers in Thailand
- 4.9 Association between travel health practices and travel related health problems among Japanese travelers in Thailand
- 4.10 Association between travel related health risky local activities and travel related health problems among Japanese travelers in Thailand
- 4.11 Association between knowledge and attitude towards travel health and travel related health problems among Japanese travelers in Thailand
- 4.12 Multivariate analysis of factors associated with travel related health problems among Japanese travelers in Thailand

4.1 Socio-demographic characteristics of Japanese travelers in Thailand

A total of 394 travelers participated in the study. Where N is less than 394, the study subject (s) did not respond to the question. Majority of the travelers were male (58.6%). About 30% were aged less than 24 years with a significant proportion (12.2%) being aged above 64 years. The median age was 37.5 with an inter-quartile range of 23-58. Majority of the participants (42.7%) had completed college or undergraduate studies; a small percentage (4.3%) had completed only middle school. Most of the respondents (55.2%) earned an annual income of not more than 3 million Yen with a minority (2%) earning more than 20 million Yen. Most of the participants (37.9%) were employed either by the government or a company with a significant proportion being unemployed (22.9%). About 29% of the respondents were students. More than half (53.3%) of the respondents were Buddhists with a significant others (37.7%) having no religion. Slightly more than half (52.2%) of the respondents were single. Majority of respondents (62.2%) had stayed in Thailand for only 4 days while a significant minority (6.6%) had stayed for more than 2 weeks. The median length of stay in Thailand was 4 with an inter-quartile range of 4-6. A big majority of the travelers (82.6%) stayed in urban areas only with a significant minority (2.6%) staying in rural areas only. The remainder stayed both in urban and rural areas of Thailand. Most of the travelers stayed in hotels/resorts (82.4%) with a significant minority staying in family/friends house (5.6%). A sizeable proportion of the travelers (10.4%) had stayed in another country after leaving Japan and before coming to Thailand. Most of the travelers (84.9%) had visited Thailand for leisure/holiday purposes while 5.4% were visiting friends/family members with the rest travelling to

Thailand for work. For 55.5% of the travelers, this was their first time in Thailand.

Socio-demographic characteristics of respondents are as shown in table 3.

Table 3 Socio-demographic characteristics of Japanese travelers in Thailand

Characteristic	Frequency	Percentage
Gender (N = 394)		
Male	231	58.6
Female	163	41.4
Age (N = 394)		
<24	117	29.7
25-34	65	16.5
35-44	29	7.4
45-54	57	14.5
55-64	78	19.8
>64	48	12.2
Median (IQR)	37.5 (23-58)	
Education level completed (N = 393)		
Middle school	17	4.3
High school	142	36.1
Junior college/technical school	45	11.5
College/undergraduate	168	42.7
Graduate or more	21	5.3
Personal annual income in Yen (N = 393)		
≤ 3,000,000	217	55.2
3,000,001 – 5,000,000	76	19.3
5,000,001 - 10,000,000	70	17.8
10,000,001 - 20,000,0000	22	5.6
> 20,000,000	8	2.0
Occupation (N = 393)		
Student	113	28.8
Government/company employee	149	37.9
Self owned business	41	10.4
Unemployed	90	22.9
Religion (N = 393)		
Buddhist	209	53.2
Shinto	15	3.8
Christian	14	3.6
No religion	148	37.7
Other	7	1.8
Current marital status (N = 391)		
Married	172	44.1
Single	200	52.2
Divorced	19	4.9

Table 3 continued: Socio-demographic characteristics of Japanese Travelers in Thailand

Characteristic	Frequency	Percentage
Duration of stay in days (N =394)		
4	245	62.2
5-7	77	19.5
8-14	46	11.7
>14	26	6.6
Median (IQR)	4 (4-6)	
Place of stay (N = 391)		
Urban	323	82.6
Rural	10	2.6
Urban and rural	58	14.8
Accommodation (N = 392)		
Hotel/resort	323	82.4
Budget hotel/hostel	47	12.0
Family/friends house	22	5.6
Stayed in another country before Thailand (N = 393)		
No	352	89.6
Yes	41	10.4
Purpose of trip (N = 392)		
Pleasure/holiday	333	84.9
Visiting family/friends	21	5.4
Job	38	9.7
First time in Thailand (N = 393)		
No	216	55.0
Yes	177	45.0

4.2 Travel related health practices

Majority of the respondents (74.7%) reported having travel health insurance. Only 4.6% of the respondents reported having received any vaccination for the current trip. Most of the travelers (64.5%) had accessed information of travel health before coming to Thailand. Information was accessed from private sources by majority (50.4%) of the respondents. Information was mainly obtained on sanitation, water and food (87.6%), weather (74.5%) and infectious diseases (31.4%). Only 6.1% of the travelers reported consulting a travel health clinic before their Journey to Thailand. Details on travel related health practices among the respondents are shown in table 4 below

Table 4 Travel related health practices among Japanese travelers in Thailand

Practice	Frequency	Percentage
Have travel medical insurance (N = 392)		
No	99	25.3
Yes	293	74.7
Vaccination taken for this trip (N = 391)		
No	373	95.4
Yes	18	4.6
Accessed information on travel health before visit Thailand N= 392)		
No	253	64.5
Yes	139	35.5
Source of information (N = 139)		
Government	28	20.1
Private	70	50.4
Government and private	41	29.5
Type of information* (N = 138)		
Infectious disease	43	31.4
Vaccination	19	13.9
Sanitation, food and water	120	87.6
Hospitals and drugs	35	25.5
Weather	102	74.5
Medical/travel insurance	37	27.0
Consulted travel clinic (N = 392)		
No	368	93.9
Yes	24	6.1

* Multiple responses allowed

4.3 Traveler's risky local activities

About 22% of the respondents reported having participated in activities that involve contact with animals. A significant proportion of the travelers (13.3%) were involved in commercial sex activities. About 18% reported having had casual sex include independent sex worker in Thailand. Out of these, 4.8% did not use a condom every time they had sex. Three respondents who had casual sex partners did not respond to the question on condom use. Respondent who reported having ever eaten street food while in Thailand were 36% while 2.8% reported drinking un-bottled/un-filtered or un-boiled water. Only 2 travelers were tattooed while in Thailand. Table 5 below summarizes travelers some of the local activities of travelers while in Thailand

Table 5 Selected risky activities among Japanese travelers while in Thailand

Activity*	Frequency (%)	
	Yes	No
Activities involving contact with animals	88 (22.4)	304 (77.6)
Commercial sex activity	52 (13.3)	340 (86.7)
Eat street food	139 (35.5)	253 (64.5)
Drink un bottled/unfiltered/un boiled water (unsafe water)**	11 (2.8)	352 (89.8)
Tattoo pierced	2 (0.5)	390 (99.5)
Non regular sex partner (include independent sex worker)	69(18.1)	296 (81.9)
Condom use every time had sex***	60 (95.2)	3 (4.8)

* Multiple responses allowed **Don't know 29 ***No response 6

4.4 Attitude on Travel health

Majority of the participants (29.6%) were undecided as to whether vaccination was unnecessary for Japanese travelers to developing countries. A significant minority (7.2%) however strongly agreed that it was unnecessary. Majority of the participants either strongly agreed (44%) or agreed (38%) that receiving counseling from a medical expert was important in preparation for travelling to a developing country. A minority (2.3%) strongly disagreed with this statement. A big majority (56.6%) strongly agreed that every traveler should get acquainted with health issues and hygiene situation of travel destination while a small minority (1.3%) strongly disagreed with this. A significant minority of participants (3.1%) strongly agreed that having sex with a virgin without a condom was safe enough; however, a big majority (81%) strongly disagreed with this. A big majority (81.7%) of Japanese travelers strongly disagreed that drinking un-bottled/un-filtered/un-boiled water was safe enough while in Thailand with a significant minority (4.4%) strongly agreeing with this. Most of the travelers (51.9%) strongly disagreed that travelers were not at higher risk of developing a health problem while in developing countries. A significant

minority however either strongly agreed (5.9%) or agreed (6.9%) with this statement. Japanese travelers avoiding eating and drinking raw food on streets while traveling in a developing country was strongly agreed by most of the participants (44%) while significant minorities either felt they disagreed (7.2%) or strongly disagreed (7.5%) with this. A big majority (87.9%) of Japanese travelers strongly disagreed that having sex with dependent prostitute had no risk of getting HIV or STI. A significant minority of the travelers (3.6%) however, strongly disagreed with this. Table 6 below shows details of various statements related to attitude on travel health and the frequencies on level of agreement.



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Table 6: Statements related to attitude on travel health and the frequencies on level of agreement

Statement (N =389)	Frequency (%)				
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1. Vaccines are unnecessary for travelers who travel to developing country	28 (7.2)	53 (13.6)	115 (29.6)	90 (23.1)	103 (26.5)
2. Receiving counseling from medical expert is important in preparation for traveling developing country	171 (44.0)	148 (38.0)	42 (10.8)	19 (4.9)	9 (2.3)
3. Every traveler should acquaint him/herself with health issues, and hygiene situation of the travel destination.	220 (56.6)	121 (31.1)	32 (8.2)	11 (2.8)	5 (1.3)
4. Having sex with virgin/intact person without condom is safe enough	12 (3.1)	3 (0.8)	31 (8.0)	28 (7.2)	315 (81.0)
5. Drinking un-bottled/un-boiled/unfiltered water is safe enough while in Thailand.	17 (4.4)	5 (1.3)	12 (3.1)	37 (9.5)	318 (81.7)
6. Travelers are not at higher risk of developing a health problem while in developing countries	23 (5.9)	27 (6.9)	39 (10.0)	98 (25.2)	202 (51.9)
7. Japanese travelers should avoid eating and drinking raw food on streets while traveling in a developing country.	171 (44.0)	99 (25.4)	62 (15.9)	28 (7.2)	29 (7.5)
8. Having sex with dependent prostitute has no risk of getting HIV or STI.	14 (3.6)	1 (0.3)	15 (3.9)	17 (4.4)	342 (87.9)

Attitude was scored from 1 to 5 based on the response to the specific question on attitude. The maximum score for the 8 questions was therefore 40 while the minimum score one could attain was 8. Most travelers (80.7%) attained a score of more than 30. A few (1%) had a score of less than 10. The mean of the attitude scores was 34.0 with a standard deviation of 4.5 as shown in table 7 below.

Table 7 Attitude score on travel health among Japanese travelers

Score	Frequency (N = 389)	Percentage
10-20	4	1.0
21-30	71	18.3
31-40	314	80.7
Mean (SD)	34.0 (4.5)	

4.5 Knowledge on travel health

Knowledge on travel health was assessed by asking participants to respond to 7 multiple choice answer questions. Each question had a maximum of two scores giving a maximum score of 14. Most participants (64 %) earned 6-10 scores. A significant proportion of participants (19.7%) attained lower scores of less than 6. The mean of the scores achieved by the participants was 7.7 with a standard deviation of 2.7. Results on the knowledge score with respective frequencies are as shown in table 8 below.

Table 8 Frequency distribution table of travel health knowledge scores among Japanese travelers

Knowledge score	Frequency (N = 390)	Percentage
0-5	77	19.7
6-10	251	64.4
11-14	62	15.9
Mean (SD)	7.7 (2.7)	

4.6 Health problems reported by Japanese travelers in Thailand

A significant proportion of Japanese travelers (32.1%) reported ever having developed a travel related health problem while in Thailand. Diarrhea/lower abdominal pain (13.8%) and skin symptoms (11%) were the most common health problems reported by the travelers. Stomach symptoms and respiratory problems were reported by 7.7% and 6.4% of travelers respectively. A few travelers (1.3%) reported having suffered from injuries. Table 9 below summarizes health problems faced by Japanese travelers in Thailand. Note that because respondents were allowed to respond to each health problem, the column percentages exceed 100%.

Table 9 Self reported health problems among Japanese travelers in Thailand

Characteristic	Frequency (%)	
	Yes	No
Developed any health problem/symptom while in Thailand	126 (32.1)	266 (67.9)
Type of health problem/symptom*		
Diarrhea/lower abdominal pain	54 (13.8)	338 (86.2)
Stomach symptoms	30 (7.7)	362 (92.3)
Loss of appetite	7 (1.8)	385 (98.2)
Headache	16 (4.0)	376 (96.0)
Muscular/Joint pain	13 (3.3)	379 (96.7)
Lack of sleep	3 (0.8)	389 (99.2)
Fever	13 (3.3)	379 (96.7)
Respiratory symptoms	25 (6.4)	367 (93.6)
Chest symptoms	2 (0.5)	390 (99.5)
Ocular symptoms	11 (2.8)	381 (97.2)
Skin symptoms	43 (11.0)	349 (89.0)
Injury/Accident	5 (1.3)	387 (98.7)
Other	8 (2.0)	384 (98.0)

* Multiple responses allowed

4.7 Solution to health problems faced by Japanese travelers

Among the 126 travelers who had a health problem while in Thailand Majority (47.6%) took no medication to solve the problem. Only 6.3% sought treatment from health facility as shown in table 10 below.

Table 10 Solution to health problems faced by Japanese travelers

Solution to health problem	Frequency	Percentage
Took no medication	60	47.6
Went to hospital or clinic	8	6.3
Took medicine bought in Thailand	19	15.1
Took medicine I carried along with from home	39	31.0
Total	126	100.0

4.8 Association between socio-demographic factors and travel related health problems among Japanese travelers in Thailand.

Association between socio-demographic factors and travel related health problems among Japanese travelers was done using Pearson's Chi square. There was no significant association between travel related health problems among Japanese travelers and: annual income, level of education and purpose of trip. Although female travelers tended to suffer more from travel related health problems (36.2%) than their male counterparts (29.3%), this difference was not statistically significant. There was a significant association between health problems among travelers and religion ($p = 0.035$). Buddhists tended to have lower rate of health problem (27.3%) than other religions (47.2%) and no religion (35.4%). There was a strong association between age and travel related health problems among Japanese travelers ($p = 0.001$). The highest risk of developing a health problem was in youth aged 18-24 (43.6%) while

the lowest rate was in the elderly people aged more than 59 years (91.3%). Marital status was strongly associated with health problems among Japanese travelers ($p = 0.001$). The rate of health problems was higher in single travelers (40%) and in those who were divorced (36.8%) but relatively lower in the married travelers (22.4%). Staying in another country before visiting Thailand was associated with higher risk of health problems among Japanese travelers ($p = 0.002$). The rate of health problems among travelers who stayed only in urban areas (28.5%) was lower than in those who did not (50%) and this difference was significant ($p = 0.001$). Occupation was significantly associated with health problems among Japanese travelers ($p = 0.02$). The rate of health problems among students was highest (42.5%) while the lowest rate (22.2%) was among the unemployed. Travelers who were first timers in Thailand had equal risk of health problems as those who had been in Thailand before. There was a strong association between length of stay in Thailand and travel related health problems among Japanese Travelers ($p < 0.001$). The risk of developing a health a health problem increased with increasing length of stay in Thailand. The highest rate of health problems (57.7%) was in travelers who had stayed for more than 2 weeks. There was a strong association between place of accommodation and travel related health problems among Japanese Travelers ($p < 0.001$). Travelers who stayed in hotels/resorts had the lowest rate of health problems (27.6%) while the highest rate was in travelers who stayed in budget hotels/hostels (59.6%). Table 11 below summarizes details of the association between socio-demographic factors and travel related health problems among Japanese travelers in Thailand

Table 11 Association between socio-demographic factors and travel related health problems among Japanese travelers in Thailand.

Socio demographic factors	Traveler had health problem (N %)		χ^2	P value
	No	Yes		
Gender (N = 392)			2.102	0.147
Male	162 (70.7)	67 (29.3)		
Female	104 (63.8)	59 (36.2)		
Annual Income (N = 392)			3.85	0.278
<3,000,001	140 (64.5)	77 (35.5)		
3,000,001 to 5,000,000	55 (72.4)	21 (27.6)		
5,000,001 to 10,000,000	47 (68.1)	22 (31.9)		
>10,000,000	24 (80.0)	6 (20.0)		
Religion (N = 392)			6.73	0.035
Buddhist	152 (72.7)	57 (27.3)		
Other	19 (52.3)	17 (47.2)		
No religion	95 (64.6)	52 (35.4)		
Level of education (N = 392)			1.89	0.597
High school and below	114 (71.7)	45 (28.3)		
Junior college/technical school	28 (63.6)	16 (36.4)		
College/undergraduate	110 (65.5)	58 (34.5)		
Graduate or more	14 (66.7)	7 (33.3)		
Age in years (N = 392)			19.84	0.001
<24	66 (56.4)	51 (43.6)		
25-34	40 (61.5)	25 (38.5)		
35-44	18 (62.1)	11 (37.9)		
45-54	40 (71.4)	16 (28.6)		
55-64	64 (82.1)	14 (17.9)		
>64	38 (80.9)	9 (19.1)		
Current marital status (N = 390)			13.59	0.001
Married	133 (77.8)	38 (22.2)		
Single	120 (60)	80 (40)		
Divorced	12 (63.2)	7 (36.8)		
Stayed in another country before Thailand (N = 392)			9.72	0.002
No	247 (70.4)	104 (29.6)		
Yes	19 (46.3)	22 (53.7)		
Purpose of the trip (N = 392)			0.10	0.950
Pleasure/holiday	227 (68.2)	106(31.8)		
Visiting family/friends	14 (66.7)	7 (33.3)		
Job	25 (65.8)	13 (34.2)		

Table 11 continued: Association between socio-demographic factors and travel related health problems among Japanese travelers in Thailand

Factor	Traveler had health problem N (%)		χ^2	P value
	No	Yes		
Staying only in urban area (N = 391)			11.91	0.001
No	34 (50.0)	34 (50.0)		
Yes	231 (71.5)	92 (28.5)		
Occupation (N = 392)			9.83	0.02
Student	65 (57.5)	48 (42.5)		
Employed	102 (68.9)	46 (31.1)		
Self employed	29 (70.7)	12 (29.3)		
Unemployed	70 (77.8)	20 (22.2)		
First time in Thailand (N = 392)			1.76	0.184
No	152 (70.7)	63 (29.3)		
Yes	114 (64.4)	63 (35.6)		
Number of days in Thailand (N = 392)			20.32	<0.001
4	184 (75.1)	61 (24.9)		
5 to 7	48 (63.2)	28 (36.8)		
8 to 14	23 (51.1)	22 (48.9)		
>14	11 (42.3)	15 (57.7)		
Accommodation (N = 392)			20.11	<0.001
Hotel/resort	234 (72.4)	89 (27.6)		
Budget hotel/hostel	19 (40.4)	28 (59.6)		
Family/friends house	13 (59.1)	9 (40.9)		

4.9 Association between travel health practices and travel related health problems among Japanese travelers in Thailand

There was no significant association between vaccination and access to information on travel health before the trip and travel related health problems among Japanese travelers. Consulting travel health clinic before the trip was marginally associated with travel related health problems ($p = 0.053$). The rate of health problems was higher among travelers who consulted travel clinics before the trip (50%) than in travelers who did not (31%). The association between travel health practices and travel related health problems among Japanese travelers in Thailand is as shown in table 12 below.

Table 12 Association between travel health practices and travel related health problems among Japanese travelers in Thailand

Factor	Traveler had Health problem (N %)		χ^2	P value
	No	Yes		
Vaccinated for this trip (N = 391)			0.38	0.536
No	254 (68.1)	119 (31.9)		
Yes	11 (61.1)	7 (38.9)		
Consulted travel clinic for this trip (392)			3.74	0.053
No	254 (69.0)	114 (31.0)		
Yes	12 (50.0)	12 (50.0)		
Accessed any information on travel health (N = 392)			0.95	0.329
No	176 (69.6)	77 (30.4)		
Yes	90 (64.7)	49 (35.3)		

4.10 Association between traveler's local activities and travel related health problems among Japanese travelers in Thailand

There was a strong association between eating street food and travel related health problems among Japanese travelers ($p < 0.001$). Travelers who ate street food had a higher rate of health problems (49.6%) than those who did not (22.5%). There was also a strong association between the type of water drunk by the travelers and travel related health problems ($p < 0.001$). Travelers who drank only bottled/filtered or boiled water had a lower rate of health problems (28.1%) than those who did not (67.5%). A significant association was found between participating in activities involving contact with animals and health problems among travelers. The rate of health problems among travelers who participated in activities involving contact with animals was higher (42%) than in travelers who did not involve in such activities (29.3%). No association was found between taking in tourist and travel related health problems among the travelers. Table 13 provides details of the association between Japanese travelers' local activities and travel related health problems in Thailand.

Table 13 Association between local activities and travel related health problems among Japanese travelers in Thailand

Factor	Traveler had health problem N (%)		X ²	P value
	No	Yes		
Eat street food (N = 392)			30.23	<0.001
No	196 (77.5)	57 (22.5)		
Yes	70 (50.4)	69 (49.6)		
Drink only bottled/boiled/filtered water (N = 392)			25.53	<0.001
Yes	253 (71.9)	99 (28.1)		
No	13 (32.5)	27 (67.5)		
Take in Tourist haunts (N = 392)			3.04	0.081
No	111 (73.0)	41 (27.0)		
Yes	155 (64.6)	85 (35.4)		
Activities involving contact with animals (N = 392)			5.1	0.024
No	215 (70.7)	89 (29.3)		
Yes	51 (58.0)	37 (42.0)		

4.11 Association between knowledge and attitude towards travel health and travel related health problems among Japanese travelers in Thailand.

Knowledge on and attitude towards travel health was converted into a scores with the maximum possible scores being 14 and 40 respectively. Independent samples t test was used to used to assess the association between knowledge and attitude scores and travel related health problems. The mean knowledge score of travelers who had no health problem was 7.48 while that for those who had was 8.03. This difference was however not statistically significant ($p = 0.06$). There was no association between attitude and travel related health problem among Japanese travelers. These results are summarized in table 14 below.

Table 14 Association between knowledge and attitude towards travel health and travel related health problems among Japanese travelers in Thailand.

Characteristic	Disease	N	Mean	SD	T	P value
Knowledge score	No	264	7.48	2.72	-1.89	0.06
	Yes	126	8.03	2.71		
Attitude score	No	263	34.02	4.57	-0.06	0.95
	Yes	126	34.05	4.25		

4.12 Multivariate analysis of factors associated with travel related health problems among Japanese travelers in Thailand

Multivariate analysis was done using binary logistic regression. All factors which had p values of less than 0.15 were included in the multivariate model. Factors with the highest p values were excluded step by step from the model until the final model shown in table 15 below was arrived at.

This model suggests that after controlling for other factors traveler's age, eating street food and drinking un-bottled/un-boiled/un-filtered water are significantly associated with travel related health problems among Japanese travelers in Thailand. There was a strong negative association between age and travel related health problems ($p=0.005$). Eating street food had a strong positive association with travel related health problem among Japanese travelers. The adjusted odds ratio suggest that, travelers who ate street food were 2.3 times more likely to suffer from travel related health problem than those who did not ($p = 0.001$). Not drinking bottled/boiled/filtered water was positively associated with health problems ($p < 0.001$). Travelers who did not drink bottled/boiled/filtered water were 3.8 times more likely to suffer from a health problem than those who did. Not staying in urban area was positively associated with travel health problems but this association was marginally significant ($p = 0.052$).

Number of days spent in Thailand and staying in another country before coming to Thailand were positively associated with travel related health problems among Japanese travelers although these associations were not significant. Table 15 summarizes these results.

Table 15 Multivariate analysis of factors associated with travel related health problems among Japanese travelers in Thailand

Factor	B	Adjusted OR	95% CI	P value
Age	0.021	0.980	0.966 – 0.994	0.005
Stay in another country before Thailand	0.400	1.492	0.691 – 3.225	0.309
Staying in urban area only*	0.603	1.828	0.994 – 3.361	0.052
Number of days spent in Thailand	0.017	1.017	0.998 – 1.036	0.085
Eat street food**	0.821	2.274	1.392 – 3.715	0.001
Drink bottled/filtered/boiled water***	1.337	3.806	1.774 – 8.167	0.001
Constant	3.854	0.021		<0.001

* No compared to yes

** Yes compared to no

*** No compared to yes

CHAPTER V

DISSCUSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

This study aimed to explore the relationship between socio-demographic factors, level of knowledge, attitude and practices related to travel health and ravel related health problems among Japanese travelers in Thailand. Data was collected using self- administered questionnaire for Japanese out – bound travelers at Suvarnabhumi International Airport, Samutprakarn, Thailand.

The results of this study will be discussed under the following parts

- 5.1.1. Socio-demographic characteristics of Japanese travelers
- 5.1.2. Travel related health problems among Japanese travelers
- 5.1.3. Association between socio-demographic factors and travel related health problems among Japanese travelers in Thailand
- 5.1.4. Association between travelers' practices and health problems of Japanese traveler in Thailand
- 5.1.5. Association between travelers' attitude and health problems of Japanese traveler in Thailand
- 5.1.6. Association between level of travelers' knowledge and health problems of Japanese traveler in Thailand

5.1.1 Socio-demographic Characteristics of Japanese travelers

Majority of participant were students of aged between 18 -24 years, and second largest population was aged over 59years. This age and occupation characteristic may relate to travel season. The data was collected between the end of January to February in 2009, and this season was not a vacation period for general Japanese citizen. However, it was a season for graduation trips by university students. Retired elderly may easily travel anytime since they do not have job constraint thorough the whole year.

Most of Travelers personal annual income was less than 3 million yen. This is again because majority of the participants were students and pensioners and also because the questionnaire was administered in general departure lounge which is not used by most high income passengers. The major religion of participants was Buddhism, but most respondents did not have strong spiritual life as supported by extra comments made by many of them on the questionnaire that they were not strong believers.

Duration of stay in shows more than 60% people traveled Thailand 4 days. This is because most of economical package tours from Japan to Thailand which include airplane, accommodation, and transportation between airport and Hotel are organized for a minimum of 4 days. Participants who stayed in Thailand more than 14days are 6.6% in this study, and majority of this group use Thailand for the base place to travel around Asia and Africa countries.

About 83% of participants stayed only in urban areas such as Bangkok, Pattaya, and Puket, this is again the effect of package tour. According to major travel search engine Yahoo Travel, most popular travel areas in Thailand are Bangkok, Puket, Samui, and Chengmai.

A popular Japanese travel agency researched about the purpose of trip among Japanese travelers who go overseas in major national holidays. The result of their study showed that the purpose of their travel was first to relax and refresh, second was to eat nice food, and third was sightseeing and join some activity (Apple World, 2009). Probably, Travelers are look for and choose the locations where are able to cover those desires of tourism, also there are well developed hotel and customer services in urban area compare to rural area, and tourists are able to get enough information easily about those famous areas by guide book and internet web site. It may make them to feel safe to stay, because they do not need to much worry about food, sanitation, infection disease, and medical facility even if staying in a developing country.

5.1.2 Travel related health problems among Japanese travelers

In this study, 32.1% of the travelers reported ever having developed a travel related health problem. This rate is lower than the rate (42.9%) that has been reported elsewhere among European travelers to popular destination (Rack et al., 2005). The most common health problems reported were: Diarrhea/lower abdominal pain (13.8%), skin symptoms (11%), stomach symptoms (7.7%) and respiratory symptoms (6.4%). This findings are almost similar to findings from a study of the health problems of Americans traveling to developing countries (Hill, 2000). The study of health problems among Europeans who travel to popular destinations also found that gastrointestinal problems were the common health problems faced by the travelers (Rack et al., 2005). The higher reported cases of diarrhea/abdominal pain than any other disease could imply that health problems among the travelers are mainly related to consumption of contaminated food and water. The reported rate of diarrhea/lower

abdominal pain is lower than the 21.3 % rate of travelers' diarrhea among Japanese tourists visiting Thailand reported in another study (Suwannapong et al., 2006). Another study also found a higher (21.1%) prevalence of travelers diarrhea among Japanese visiting Thailand (Mitsui et al., 2004). The reasons for differences between the current study and these results could be related to the areas of data collection. The study in 2004 was conducted at Khaosan and the study population comprised mainly of young Backpackers who could be less careful in eating habits. Khaosan road is known also to have cheap accommodation and therefore Japanese who stay there may be trying to save money and hence more likely to eat cheap street food. Besides age has shown to have a negative correlation with diarrhea (Cobelens, Leentvaar-Kuijpers, Kleijnen, and Coutinho, 1998). Although the study by Suwannapong et al did not comprise mainly of young people, it was done in other towns and covered a longer period of data collection therefore a possibility of getting different results. However all those studies showed that diarrhea is still very common health problem in Thailand not only among Japanese people but also other travelers from developed countries.

Skin problems could be related sun burns given differences in weather conditions between Thailand and Japan with Thailand being hotter than Japan, and also insect bites.

The high rate of reported respiratory problems could be related to air pollution and differences in weather conditions between Thailand and Japan. It could also be related to more use of indoor air conditioners in Thailand than in Japan.

Among the travelers who developed health problems, 47.6 % took no medication. This could reflect the mild nature of the health problems. However, 31% took medicine they carried along from home. A high rate of self treatment for diarrhea

among Japanese travelers has been reported in Thailand (Suwannapong et al., 2006). The high tendency of self medication could be related to inaccessibility to health services by Japanese travelers while in Thailand mainly due to language barriers. Lack of health insurance can also increase self medication. It is important that travelers get enough information on the drugs they carry to avoid irrational use of drugs and its consequences.

5.1.3 Association between socio-demographic factors and health problems of Japanese travelers in Thailand

Among the socio-demographic factors, age; current marital status; stayed in another country before enter Thailand; area of stay; occupation; number of days stay in Thailand; and type of accommodation showed association with health problems among Japanese travelers by Chi square test. However, all except age lost significant association after controlling for confounding factors by the logistic regression. Area of stay had marginal association with health problems among travelers ($p = 0.052$). The risk of health problems reduced with age. This finding is consistent with a cross sectional study of the health risks amongst Hong Kong Chinese travelers who had travelled to mainland China or elsewhere overseas (Abdullah et al., 2001) and another study conducted in Europe (Rack et al., 2005) which found that younger travelers were more likely to develop a health problem than older travelers. A possible explanation for this observation is that young people are more adventurous and more likely to participate in activities which predispose them to health problems than older people. Younger people may also be less informed about health risks of certain activities.

5.1.4 Association between travelers' practices and health problems among Japanese travelers in Thailand

Having travel insurance is a good travel practice as the traveler can easily access medical care in case of an illness. Majority of the travelers (74.7%) had travel health insurance. This high rate of possession of travel health insurance could be because most credit cards are inclusive of travel health insurance up to a maximum of 3 months of staying abroad. It is also important to note that because of universal health care in Japan travelers who don't have travel health insurance but have National Health Insurance get refunded 70% of their medical expenses incurred abroad once they submit relevant receipts on returning home. Therefore possession of travel insurance may not a big concern for most Japanese travelers. Only 4.6% of travelers were vaccinated for the trip. This low vaccination rate could be because of no vaccination requirements for Japanese visiting Thailand (Japan Overseas health Administration Center, 2008). Majority of the travelers (64.5%) had not accessed information on travel health before visiting Thailand and only a few (6.1%) had consulted a travel clinic before their journey. This rate is lower than what was found out in a study in Europe where 40% of travelers consulted travel clinics before departure (Wilder-Smith et al., 2004). Consulting a travel clinic before travel is a practice that can reduce the risk of health problems in the destination country. The concept of travel clinics in Japan is not very popular like in Western countries explaining the low rate of visiting the clinic before travel among the participants. About 36% of the travelers had accessed travel health information before their trip to Thailand. Majority (50.4%) of those who had accessed information on travel health had done so from private sources with only 20% accessing information from

government sources. This highlights the significant role played by the private sector which includes travel agencies in providing information on travel health to travelers. Strengthening this role can result into more travelers accessing travel health information of their destinations.

Low level of travel health practices have been documented elsewhere. A study in Australasia showed low levels of seeking health advice from a medical personnel and taking vaccinations before travel (Wilder-Smith et al., 2004). European travelers to popular destinations 20% did not carry anti-malarial drugs despite visiting malaria endemic zones (Rack et al., 2005).

Univariate analysis showed no association between travel health practices and health problems among Japanese travelers.

Certain activities can increase the risk of health problems among travelers. In this study 6 activities considered risky were analyzed. These included activities involving contact with animals, sexual activities, eating street food, drinking unsafe water, tattooing, and having non regular sex partner in Thailand. Most respondents reported eating street food and participating in activities that involved contact with animals. A significant proportion was also involved in sexual activities. Whereas some activities e.g. eating street food can result into health problems with immediate symptoms like diarrhea, some like sexual activities can result into health problems whose symptoms manifest later for instance HIV. Eating street food, type of drinking water and participating in activities that involved contact with animals had significant association with health problems among the travelers by bivariate analysis. In multivariate analysis, eating street food and type drinking water maintained association with health problems in the travelers. Eating street food and drinking un-

bottled/un-boiled/un-filtered water were positively associated with health problems among the travelers. With the major health problem being diarrhea/lower abdominal pain, these findings were not unexpected as diarrhea is related to eating and drinking contaminated food and water respectively.

5.1.5 Association between travelers' attitude and health problems of Japanese traveler in Thailand

Over 80% of the travelers had an attitude score of 31-40 out of 40. This reveals a general good attitude among Japanese travelers towards travel health. Good attitude towards travel health is important in compliance with any recommendations that might be issued by health authorities. It is however important to note that some misperceptions about travel health were observed among the travelers. Travelers who strongly agreed that having sex with a dependent prostitute had no risk of getting HIV/STI were 3.6% while 3.1% strongly agreed that having sex with a virgin without condom was safe enough. Such kind of misperceptions relating to sexual activities can predispose travelers to the risk of acquiring HIV and other STIs. Travelers who disagreed or strongly disagreed that eating and drinking raw street food should be avoided while traveling in a developing country were 7.2% and 7.5% respectively. Those who strongly disagreed that drinking un-bottled water was safe enough were 4.4%. Having such attitudes towards food and water can be a risk factor for acquiring food and water related diseases like diarrhea. A study in Europe showed that only 14.5% of travelers had planned to always restrict their consumption of all potentially dangerous food items (Herck et al., 2003). Travelers need to change their attitudes towards consumption of food if need to minimize the risk of acquiring travelers diarrhea which is the most common health problem in international travelers (Hill,

2000). Concerning immunization, 7.2% and 13.6% of respondents strongly agreed and agreed respectively that vaccines were unnecessary for travelers to developing countries. This finding contrasts with a study in Europe which found that 80% of respondent considered vaccination essential (Wilder-Smith et al., 2004). In this study, both bivariate and multivariate analyses showed no association between attitude and health problems among the travelers. The reason for this observation could be due to the fact that those with negative attitude towards travel health may not necessarily go ahead and practice risky behaviors.

5.1.6 Association between level of travelers' knowledge and health problems of Japanese traveler in Thailand

Most travelers (64.4%) had a moderate level of knowledge of 6-10 scores (out of a possible maximum of 14 scores) on travel health. A significant proportion (19.7%) however had a low score of less than 5. This low level of knowledge on travel health could be related to the nature of questions asked which mainly focused on tropical diseases which are not common in Japan. It's therefore difficult for Japanese to have knowledge about these diseases through general life experiences in Japan unless one experienced life in the tropics or encountered the diseases through studying. This shows the need for providing more health information to travelers before or during their trip.

There was no association between knowledge on travel health and travel related health problems among the travelers.

5.2 Conclusion

Travel related health problems among Japanese travelers in Thailand are related mainly food and water related. The risk of health problems among the travelers reduces with age.

Japanese travelers in Thailand have good attitude towards travel health but their knowledge on travel health is moderate. The following are weaknesses of this study:

1. Because it was a cross sectional study, it is not possible to establish a causal relationship between the independent and dependent variables.
2. Health problems among the travelers were self reported without any clinical or laboratory confirmation. This might have resulted into inaccuracies in reporting. Without clinical/laboratory assessment, asymptomatic health problems were not reported.
3. There is potential for recall bias regarding health problems faced by the travelers
4. Due to use of convenience sampling method, the study findings have limitations in the extent to which they can be generalized.
5. Because this study does not involve screening or follow up of travelers, it is possible for travelers with latent infections picked up in Thailand not to report any disease or symptom.

5.3 Recommendations

1. There is need for studies which involve following up the travelers to Japan to find out if they develop health problems after their trip. This is necessitated by the fact that some health problems like HIV have latent periods and it is not possible to determine if developed such a problem through a cross sectional study like this one.
2. Japanese government should provide more information to younger Japanese travelers visiting Thailand on travel health with specific emphasis on safe eating and drinking water habits using the suitable methods (for young people) such as internet website for personal computer and cell phones, not only original website of government but also need to collaborate with private websites which are popular among younger people. It may also be useful to show travel health information in popular guide books for backpackers.
3. Japanese Government should provide more information to older travelers on safe sex and STD.
4. Companies that publish books on recommendations on street food, guide to backpackers and adventure trips, should include information about the health risks of eating street food and hygiene level in Thailand.
5. Thailand Ministry of Public Health should step up campaigns to promote hygienic practices in food handling among street food vendors in Thailand. The ministry should also introduce the safety food 10 steps and existence of certificate from Thai Government and the benefits of it more actively.
6. Thailand Ministry of Tourism can provide conspicuous sticker to the street food shops that follow government guidelines on safe street food.

REFERENCES

English

- Abdullah, A. S. M., McGhee, S. M., and Hedley, A. J. (2001). Health risks during travel: a population-based study amongst the Hong Kong Chinese Annals of Tropical Medicine and Parasitology 95,1: 105-110.
- Apple World. (2009). About travelling abroad in golden week. [Online]. Available from: http://appleworld.com/apl/enquete/imgs/apple_research7.pdf [2009, March 26].
- Castelli, F. (2004). Human Mobility and Disease: A Global Challenge. Journal of Travel Medicine 11: 1-2.
- Cobelens, F. G., Leentvaar-Kuijpers, A., Kleijnen, J., and Coutinho, R. A. (1998). Incidence and risk factors of diarrhoea in Dutch travellers: consequences for priorities in pre-travel health advice. Trop Med Int Health 3,11: 896-903.
- Colette, G., Blandine, P.-G., Julien, E., Sylvie, V., Réjean, D., Jean-Luc, G., et al. (2006). Travel Agents and the Prevention of Health Problems among Travelers in Québec. Journal of Travel Medicine 9,1: 3-9.
- Daniel, W. (2005). *Biostatistics: A Foundation for Analysis in Health Sciences* (8 ed.). NJ: John Wiley & Sons.
- Herck, K. V., Zuckerman, J., Castelli, F., Damme, P. V., Walker, E., and Steffen, R. (2003). Travelers' Knowledge, Attitudes, and Practices on Prevention of Infectious Diseases: Results from a Pilot Study. J Travel Med 10: 75-78.
- Hill, D. (2000). Health Problems in a Large Cohort of Americans Traveling to Developing Countries. Journal of Travel Medicine 7.: 259-266.

- Japan National Tourist Organization. (2006). Japanese Travelers to ASEAN Countries. [Online]. Available from:
<http://www.asean.or.jp/general/statistics/statistics07/PDF/5-5.pdf>
[2008,October 22].
- Japan Overseas health Administration Center. (2008). Medical and hygiene information for overseas workers. [Online]. Available from:
<http://www.johac.rockefeller.jp/world/AsiaSoutheast/Thai.html> [2009, April 03].
- JTB Group. (2005). Pocket Guide: Thailand. Tokyo: JTB Group.
- Kemmerer, T., Cetron, M., Harper, L., and Kozarsky, P. (2006). Health Problems of Corporate Travelers: Risk Factors and Management. Journal of Travel Medicine 5,4: 184-187.
- Leggat, A. P. (2006). Sources of Health Advice Given to Travelers. Journal of Travel Medicine 7,2: 85-88.
- Ministry of Health Labor and Welfare. (2008). Infectious Disease information by country(Thailand). [Online]. Available from:
http://www.forth.go.jp/tourist/worldinfo/02_asia/h08_thai.html [2008,October 2].
- Mitsui, Y., Chanyasaha, C., Boonshuyar, C., Shimada, M., and Moji, K. (2004). Incidence of travelers' diarrhea among Japanese visiting Thailand. Tropical Medicine and Health 32: 21-26.
- Nemoto, T., Yokota, F., Hanafusa, K., and Wada, K. (2002). HIV-Related Risk Behaviors among Japanese Tourists in the Khaosan Road Area, Bangkok, Thailand. AIDS and Behavior 6,3: 245-249.

- Rack, J., Wichmann, O., Kamara, B., Günther, M., Cramer, J., Schönfeld, C., et al. (2005). Risk and Spectrum of Diseases in Travelers to Popular Tourist Destinations. J Travel Med 12: 248-253.
- Reed, J., McIntosh, B., and Powers, K. (1994). Travel Illness and the Family Practitioner: A Retrospective Assessment of Travel-Induced Illness in General Practice and the Effect of a Travel Illness Clinic. Journal of Travel Medicine 1,4: 192-198.
- Sakai, R., Wongkhomthong, S., Murui, E., and Laobhripatr, S. (2008). Patterns of Outpatient Visits by Japanese Male Expatriates in Thailand. Journal of Occupational Health 50: 103-113.
- Shobunsha. (2006). New Personal Travel Thailand 2006-2007. Tokyo: Shigeo Kuroda.
- Steffen, R., deBernardis, C., and Baños, A. (2003). Travel epidemiology—a global perspective. International Journal of Antimicrobial Agents 21: 89-95.
- Suwannapong, N., Howteerakul, N., and Boonshuyar, C. (2006). Behaviors and Perceptions of Japanese Tourists affecting Diarrheal Illness and Health Care Need Assessment: A Questionnaire Study. Environmental Health and Preventive Medicine 11: 184-190.
- Suzuki, T. (2003). Chikyuuno Arukikata; Bangkok: Globe trotter Travel Guidebook. Tokyo: Diamond Big Co., Ltd.
- The embassy of Japan in Thailand. (2008). Statistics of Japanese living in Thailand 2007. [Online]. Available from: <http://www.th.emb-japan.go.jp/jpconsular/zairyu07.htm> [2008,October 11].

- Toovey, S., Jamieson, A., and Holloway, M. (2006). Travelers' Knowledge, Attitudes and Practices on the Prevention of Infectious Diseases: Results from a Study at Johannesburg International Airport. Journal of Travel Medicine 11,1: 16-22.
- Tourism Authority of Thailand. (2008). Tourism Statistics in Thailand 1998-2007 (preliminary data). [Online]. Available from:
http://www2.tat.or.th/stat/web/static_index.php [2008, October 11].
- WHO. (2007, 2008). International travel and health: situation as on 1 January 2007. [Online]. Available from:
http://whqlibdoc.who.int/publications/2007/9789241580397_chapters_eng.pdf
- Wilder-Smith, A., Khairullah, N., Song, J.-H., Chen, C.-Y., and Torresi, J. (2004). Travel Health Knowledge, Attitudes and Practices among Australasian Travelers. Journal of Travel Medicine 11: 9-15.
- Zuckerman, J., Castelli, F., van Damme, P., Walker, E., and Steffen, R. (2006). Travelers' Knowledge, Attitudes, and Practices on Prevention of Infectious Diseases: Results from a Pilot Study. Journal of Travel Medicine 10,2: 75-78.



APPENDICES

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX A:
QUESTIONNAIRE: ENGLISH

No.....

Request of Questionnaire for Japanese Traveler

I am Risa Takahashi, a Master's Degree student from the College of Public Health Sciences, Chulalongkorn University. I am conducting a study to find out **“factors associated with travel –related health problems among Japanese travelers while in Thailand”**. To collect data for this research, I would like to carry out the questionnaire survey among Japanese travelers. I will therefore, kindly request for your cooperation in this study.

This study will be helpful to health care providers both in Japan and in Thailand in improving travel - related health advice and protect Japanese travelers. The questionnaire will not bear your name and your response. The data from the result of questionnaire will be only used for academic study. Therefore, there is no danger of invading the privacy. Also the minimum personal information which obtain by this questionnaire will not be used any other purpose beside this study.

This session will take about **15** minutes and you have a right and freedom to terminate the questionnaire at any point of time.

★Please tick in the appropriate “” form among alternative and fill in the appropriate number or word in the questions in “_____”

A, General Information

1, Arrival Date: ____ / ____ / ____ (DD/MM/YY)

Departure Date: ____ / ____ / ____ (DD/MM/YY)

2, Gender: ①Male ②Female

3, Age: _____

4, Occupation: ①Student ②Government employee
③Company employee ④Self-owned business
⑤House wife ⑥Part time /Dispatched employee
⑦Unemployed ⑧Other

5, Annual income: ①Under 3,000,000 yen ②3,000,001~5,000,000yen
③5,000,001~10,000,000yen ④10,000,001~20,000,000yen
⑤More than 20,000,000 yen

6, Religion: ①Buddhist ②Shinto ③Christianity
④No religion ⑤Other

7, Highest level of education completed:
①Middle school ②High School ③Junior college/ technical school
④College /undergraduate ⑤Graduate or more

8, Marital status:
①Married ②Single ③Divorced/Bereaved

9, Did you stay in another country before coming to Thailand from Japan? If “Yes” please answer the country’s name and Length of stay. (If you drop by connecting flight please fill 0 in length of stay part.)

①No
②Yes Country _____ Length of stay _____ days

11, Is this a first time to visit Thailand?

①No ②Yes

B, Medial Information

1, Were you under treatment for any disease or annoying symptoms before entering Thailand? If yes, please specify the name of diseases or symptoms.

- ①No
 ②Yes (Disease/symptom)

2, Did you come along with some medicines from Japan? If “Yes” what kind of medicines? (Can apply more than one)

- ①No
 ②Yes ①cold medicine ②Antibiotics ③Antidiarrheal
 ④Pain killer ⑤Medicine for inveterate disease
 ⑥Other

3, Are you allergic to any of the following? (Can apply more than one)

- ①No
 ②House dust Animal ④Auto Emission ⑤Latex
 ⑥Food(specific)_____ ⑦Other (specific)_____

4, Have you taken any vaccination for this trip? If “Yes”, against what?

- ①No ②Yes(specify)_____

5, Did you take any prophylactic drugs for malaria include while you are in Thailand?

- ①No ②Yes

6, Have you consulted a travel health clinic for this trip?

- ①No ②Yes

7, Do you have travel medical insurance covering this trip?

- ①No ②Yes

8, Did you access any information on travel health? If “Yes” what kind of information and where did you access. (Include while you are in Thailand)

- ①No
 ②Yes

Where (can apply more than one):

- ①Government (Ministry of Health, Labor and Welfare ,Foreign Affairs /Japanese Embassy in Thailand/Quarantine)
 ②Travel agency/ Insurance company ③Airport leaflet
 ④Travel magazine /Travel guide book ⑤Other

What (Can apply more than one):

- ①Infection diseases ②Vaccinations ③Food and water
 ④Hospitals and drugs ⑤Weather ⑥Travel Insurance
 ⑦Sanitation ⑧Other_____

9, Have you ever had any symptoms or Problems while you are in Thailand? If “yes” please tick the symptoms/ problems below: (can apply more than one)

- ① No symptom/Problem ② Diarrhea/ lower abdominal pain
 ③ Stomach symptoms (Stomachache/Heartburn/ Vomiting/Nausea etc.)
 ④ Loss of appetite ⑤ Headache ⑥ Muscular/Joint pain
 ⑦ Pain on urination ⑧ Itchy genital area
 ⑨ Lack of sleep ⑩ Fever
 ⑪ Respiratory symptoms (Cough/Sore throat/ Sneeze/Running nose etc.)
 ⑫ Chest symptoms (Chest pain/ Palpitation/short of breath etc.)
 ⑬ Ocular symptoms (Itch/Bloodshot etc.)
 ⑭ Skin symptoms (insect sting/Itch/dry/rash etc.)
 ⑮ Injury/Accident ⑯ Other

9.1, If you had any of the symptoms/problems above: How did you solve? (can apply more than one)

- ① Did nothing
 ② Went to hospital/clinic for treatment ③ Bought drugs and took them
 ④ Took drugs I had carried along from home ⑤ Other

9.2, If visited Hospital, what was the diagnosis

- ① (specify) _____ ② Don't know

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C, About Trip

1, Please ticks as appropriate below to best describe your trip.

(Each can apply more than one)

Purpose of trip:

- ①Pleasure/holiday ②Visiting family/friends ③Job related
④Other: _____

Traveling:

- ①Alone ②with friend/coworker ③with family ④Other:

Place of visited:

- ①Bangkok ②Phuket ③Chiang mai ④Pattaya ⑤Ayutthaya
⑥Neighbor countries(specify)_____ ⑦Other

Staying area which is:

- ①Urban ②Rural ③Both Urban & Rural

Accommodation:

- ①Hotel/Resorts ②Budget hotels/ hostels ③Camping
④ Family/friends House ⑤Other: _____

Activities:

- ①Massage/beauty ②Volunteer/humanitarian activities
③Activities involving contact with animals ④Sports(specify)
⑤Sexual activities ⑥Alcohol drinking
⑦Take in tourist haunts ⑧Eat street food
⑨Tattoo/pierced ⑩Other: _____

2, Did you ever drink unbottled or unboiled or unfiltered water while on this trip?

- ①No ②Yes ③Don't know

3, Have you ever had a non regular sexual partner while in Thailand?

- ①No ②Yes ③No response

If "yes" did you use condom every time?

- ①No ②Yes ③No response

D, Knowledge on Travel Health

1, How can you protect yourself from the following diseases?

(Please check on all correct answers)

(a) Malaria

- ① Vaccination ② Taking Prophylactic drugs
 ③ Avoiding mosquito bites ④ Avoiding uncooked food
 ⑤ There is no correct answer here ⑥ Don't know

(b) Diarrhea

- ① Avoiding uncooked food ② Avoiding mosquito bites
 ③ Taking Prophylactic drugs ④ Avoiding unbottled water
 ⑤ There is no correct answer here ⑥ Don't know

(c) HIV/STIs

- ① Vaccination ② Use condom correctly every time during sex
 ③ Avoiding uncooked food ④ Taking Prophylactic drugs
 ⑤ There is no correct answer here ⑥ Don't know

(d) Typhoid

- ① Avoiding uncooked food ② Avoiding mosquito bites
 ③ Taking Prophylactic drugs ④ Drinking unbottled water
 ⑤ There is no correct answer here ⑥ Don't know

(e) Hepatitis A

- ① Vaccination ② Avoiding uncooked food
 ③ Avoiding mosquito bites
 ④ Use condom correctly every time during sex
 ⑤ There is no correct answer here ⑥ Don't know

(f) Hepatitis B

- ① Vaccination ② Taking Prophylactic drugs
 ③ Use condom correctly every time during sex
 ④ Avoiding uncooked food
 ⑤ There is no correct answer here ⑥ Don't know

2, What is safer sex ? (Can apply more than one)

- ① Avoiding multiple partners ② oral sex without condom
 ③ Use condom correctly every time during sex
 ④ Sex in the commercial sex trade shop
 ⑤ There is no correct answer here ⑥ Don't know

E: Attitude towards travel health

1, For each statement in the table below, please tick “X” as follows:

Tick for column 1 if you strongly agree;

Tick for column 2 if you agree but not very strongly;

Tick for column 3 if you are undecided;

Tick for column 4 if you disagree with the statement

Tick for column 5 if you strongly disagree

Please reply only one column that best fits.

	Statement	1	2	3	4	5
1	Vaccines are unnecessary for travelers who travel to developing country.					
2	Receiving counseling from medical expert (MD etc) for the healthcare, infectious disease prophylaxis and so on are an important part of preparation for traveling developing country and unaccustomed area.					
3	Every traveler should acquaint him/herself with health issues, and hygiene situation of the travel destination.					
4	Having sex with virgin/intact person without condom is safe enough.					
5	Drinking non bottled water is safe enough while in Thailand.					
6	Travelers are at higher risk of developing a health problem while in developing countries or unaccustomed area.					
7	Japanese travelers should avoid to eat and drink raw food (ex Sashimi, salad,, fruit) on the street store while traveling in a developing country.					
8	Having sex with dependent prostitute has no risk of getting HIV or STI.					

This is the end of the questionnaire. Thank you very much for taking part in this research.

APPENDIX B: QUESTIONNAIRE JAPANESE

日本人旅行者の方へアンケートのご依頼

私はタイ王立チュラロンコン大学大学院公衆衛生研究科修士課程に在学中の高橋里沙と申します。現在、「タイ王国における日本人旅行者の旅行に関連する健康問題とその要因」について研究しています。この研究調査用データとして18歳以上の日本人旅行者の方にアンケートを実施させて頂くこととなりました。つきましては、大変恐縮ではございますが、アンケートにお答えいただき、研究にご協力いただきたくお願い申し上げます。

この研究は、今後、日本国およびタイ王国の医療関連機関において日本人旅行者の方々の旅行中の健康維持及び疾病予防のための適切な情報発信とアドバイスを向上させる手助けにつながります。

本調査で得られたデータは、学術的な研究のみに使用されます。アンケートは無記名のため個人のプライバシーが侵されることは一切ありません。また、記入によって得られた必要最低限の個人情報 は目的外に使用することはありませんのでご理解のほどよろしくお願い致します。

アンケートは、全過程約15分程度を予定しておりますが、参加者には、途中でいつでも、アンケートを放棄する権利と自由があります。

問合せ先

チュラロンコン大学大学院 公衆衛生研究科 修士課程
高橋 里沙

住所: College of Public Health Science

Chulalongkorn University

Institute Building 3, 10th.Floor, Soi Chulalongkorn 62,

Phyathai Road.,Patumwan, Bangkok, 10330,

THAILAND

電話: +66-850-71-2611

E-mail: travel.chula@gmail.com

□アンケート用紙のすべての質問について、選択肢のあるものには□にチェックを、下線部には当てはまる文字、数字をお書き下さい。

A, 一般情報

1. 入国日： 年 月 日 出国日 年 月 日
2. 性別： ①男性 ②女性
3. 年齢： _____歳
4. 職業： ①学生／研究者 ②公務員 ③会社員 ④自営業
⑤主婦 ⑥パート／非常勤／派遣社員 ⑦無職
⑧その他
5. 年収： ①300万円未満 ②300～500万円 ③501～1000万円
④1001～2000万円 ⑤2001万円以上
6. 宗教： ①仏教 ②神道 ③キリスト教
④無宗教 ⑤その他
7. 最終学歴： ①中学校卒 ②高校卒 ③短大／専門学校卒
④大学卒 ⑤大学院卒
8. 婚姻状況： ①既婚 ②既婚（単身赴任／別居中） ③未婚
④内縁関係／同棲 ⑤離婚／死別 ⑥無回答
9. 日本出国後よりタイに入国するまでの間にどこか他の国に立ち寄られましたか？立ち寄られた方は、国名と滞在日数をお答えください。（乗継利用のため数時間滞在された方は、滞在日数に0とお書きください。）
①いいえ
②はい 国名_____ 滞在日数_____
日
10. タイへのご訪問は今回が初めてですか？
①いいえ ②はい

B, 医療情報

1. 現病歴：タイ入国前から治療中／通院中の病気や、気になる症状がありましたか？
「あり」と答えられた方は、具体的にその病名又は症状をお書き下さい。
①なし
②あり（病名・症状）

2. 日本から持参された薬はありますか？また、それは何の薬ですか？
①なし
②あり ①かぜ薬 ②抗生物質 ③下痢止め
④痛み止め ⑤持病の治療薬
⑥その他

3. アレルギーはありますか？（複数回答可）
①なし
②あり ①ハウスダスト ②動物 ③排気ガス
④ラテックス ⑤食物（具体的に）
⑥その他_____

4. 今回の旅行にあたっての何か予防接種を受けましたか？
受けられた方、それは何の予防接種ですか？
①受けていない
②受けた（具体的に）

5. タイ入国前又は滞在中にマラリア予防薬を服用しましたか？
①いいえ ②はい

6. 今回の旅行に備えて、出発前に医療機関を受診又は相談されたりしましたか？
①いいえ ②はい

7. 今回の旅行に対応する、旅行医療保険（クレジットカード付帯を含む）をお持ちですか？
①いいえ ②はい

8. 今回の旅行にあたり、タイ滞在中を含め旅行者向け医療情報（食べ物・気候など）を入手しましたか？はいの方は入手先と内容についてお答えください。

- ①いいえ
②はい

入手先（複数回答可）：

- ①政府／公的機関
 （厚生労働省・外務省・在タイ日本大使館・検疫所）
②旅行会社／保険会社 ③空港検疫
④旅行雑誌／ガイドブック ⑤その他

内容（複数回答可）

- ①伝染病 ②予防接種 ③食べ物／水 ④病院／薬
⑤気候 ⑥旅行・医療保険 ⑦衛生状態 ⑧その他

9. 滞在中、何か症状や健康問題がありましたか？当てはまるものにチェックを付けてください。（複数回答可）

- ①症状／問題なし
②下痢・腹痛 ③胃部症状（胃痛・胸やけ／吐き気／嘔吐など）
④食欲不振 ⑤頭痛 ⑥筋肉・関節痛
⑦排尿時の痛み ⑧陰部のかゆみ ⑨不眠 ⑩発熱
⑪呼吸器症状（咳／咽頭痛／鼻水／鼻づまりなど）
⑫胸部症状（痛み／動悸／息切れなど）
⑬目の症状（かゆみ／充血など）
⑭皮膚症状（虫さされ／かゆみ／乾燥／発疹など） ⑮事故やケガ
⑯その他

症状／問題があった方は、それらの症状／問題にどのように対応されましたか？（複数回答可）

- ①何もしなかった ②病院／診療所を受診 ③薬を購入し服用
④日本からの持参薬を服用 ⑤その他

病院／診療所を受診された方、病名（診断名）をお答えください。

- ①病名
②わからない

C, タイ滞在中について

1. 今回の旅行で当てはまるものにチェックを付けてください。(複数回答可)

渡航目的:

- ①休暇／観光 ②友人／親族訪問 ③仕事関係
④その他_____

同行者: ①なし ②友人／仕事関係 ③家族 ④その他

訪問先: ①バンコク ②プーケット ③チェンマイ ④パタヤ
⑤アユタヤ ⑥近隣諸国 (国名_____)
⑦その他

滞在地域: ①都市 ②田舎 ③都市・田舎両方

宿泊施設:

- ①ホテル／リゾート ②安宿／ユースホステル
③キャンプ場 ④親族／友人宅 ⑤その他

旅行中にしたこと:

- ①マッサージ／美容関連 ②ボランティア／人道活動
③動物に触れた ④スポーツ(具体的に)
⑤性／風俗関連 ⑥飲酒 ⑦観光名所巡り
⑧屋台／露店での飲食 ⑨タトゥー／ピアスをあける
⑩その他

2. 滞在中、生水(ボトル入りや煮沸した水以外)を一度でも飲みましたか?

- ①いいえ ②はい ③わからない

3. 滞在中、特定のパートナー以外の人と性的関係を持ちましたか?
「はい」の方は、コンドームを毎回使用しましたか?

性的関係:

- ①いいえ ②はい ③無回答

コンドームの使用:

- ①いいえ ②はい(毎回) ③無回答

D, 旅行医学に関する知識

1. 下記の病気の感染から身を守る方法として、正しいと思うものすべての
□に

チェックを付けてください。（複数回答可）

(a) マラリア

- ①予防接種 □②予防薬の服用 □③蚊に刺されないようにする
□④生ものを食べない □⑤この中に正しい回答はない □⑥わからない

(b) 下痢

- ①生ものを食べない □②蚊に刺されないようにする □③予防薬を服用
□④生水を飲まない □⑤この中に正しい回答はない □⑥わからない

(c) HIV（エイズ）／性感染症（性病）

- ①予防接種 □②毎回コンドームを正しく使う □③生ものを食べない
□④予防薬の服用 □⑤この中に正しい回答はない □⑥わからない

(d) 腸チフス

- ①生ものを食べない □②蚊に刺されないようにする □③予防薬を服用
□④生水を飲まない □⑤この中に正しい回答はない □⑥わからない

(e) A型肝炎

- ①予防接種 □②生ものを食べない □③蚊に刺されないようにする
□④毎回コンドームを正しく使う □⑤この中に正しい回答はない
□⑥わからない

(f) B型肝炎

- ①予防接種 □②予防薬の服用 □③毎回コンドームを正しく使う
□④生ものを食べない □⑤この中に正しい回答はない □⑥わからない

2. 次の内、より安全な（安全性が高い）性行動はどれですか？（複数回答可）

- ①不特定多数の人との性行為を避ける
□②コンドーム無しのオーラルセックス（口唇性交）
□③毎回コンドームを正しく使う □④風俗店での性行為
□⑤この中に当てはまるものはない □⑥わからない

E, 旅行医学に関する考え方

1. 下記の旅行医学に関する意見についてどのようにお考えですか？
当てはまるものにチェックを付けてください。

- 1 : とてもそう思う
2 : ややそう思う
3 : どちらともいえない
4 : あまりそう思わない
5 : まったくそう思わない

	意見	1	2	3	4	5
1	開発途上国へ旅行する時、旅行者に予防接種は必要ない。					
2	体調管理や感染症予防などについて、医師等の専門家に助言をもらうことは、開発途上国や不慣れな地域への旅行前には大切な準備の一つである。					
3	旅行者は、旅行先の衛生状態や健康問題について熟知しているべきである。					
4	童貞、処女の人との性行為はコンドームを使用しなくても安全である。					
5	タイ滞在中は、生水を飲んでも安全である。					
6	開発途上国や不慣れな地域を旅行中は、病気や危険にさらされる可能性が高い。					
7	日本人旅行者は、路上の屋台や露店での生もの（刺身、サラダ、果物など）の飲食を避けるべきである。					
8	風俗店の娼婦／男娼との性行為であれば、H I Vや性病に感染する危険はない。					

アンケートは以上です。

調査研究にご協力いただきましてありがとうございました。

จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX C

ETHICAL APPROVAL

AF 02-11



The Ethical Review Committee for Research Involving Human Research Subjects,
Health Science Group, Chulalongkorn University
Institute Building 2, 4 Floor, Soi Chulalongkorn 62, Phyat hai Rd., Bangkok 10330, Thailand,
Tel: 0-2218-8147 Fax: 0-2218-8147 E-mail: eccu@chula.ac.th

COA No. 009/2009

Certificate of Approval

Study Title No. 115.1/51 : **FACTORS ASSOCIATED WITH TRAVEL-RELATED HEALTH PROBLEMS AMONG JAPANESE TRAVELERS IN THAILAND**

Principle Investigator : Ms. Risa Takahashi, Master of Public Health

Place of Proposed Study/Institution : College of Public Health Sciences,
Chulalongkorn University

The Ethical Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University, Thailand, has approved, constituted in accordance with the International Conference on Harmonization – Good Clinical Practice (ICH-GCP), the above study project.

Signature: *Prida Tasanapradit* Signature: *Nuntaree Chaichanawongsaroj*
(Associate Professor Prida Tasanapradit, M.D.) (Assistant Professor Nuntaree Chaichanawongsaroj, Ph.D.)
Chairman Secretary

Date of Approval : 19 January 2009

Approval Expire date : 18 January 2010

The approval documents including

- 1) Research proposal
- 2) Patient/Participant Information Sheet and Informed Consent Form
- 3) Researcher
- 4) Questionnaire



เลขที่โครงการวิจัย 115.1/51
วันที่รับรอง 19 JAN 2009
วันหมดอายุ 18 JAN 2010

The approved investigator must comply with the following conditions:

1. The research/project activities must end on the approval expired date of the Ethical Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University (ECCU). In case the research/project is unable to complete within that date, the project extension can be applied one month prior to the ECCU approval expired date.
2. Strictly conduct the research/project activities as written in the proposal.
3. Using only the documents that bearing the ECCU's seal of approval with the subjects/volunteers (including subject information sheet, consent form, invitation letter for project/research participation (if available); and return the first subject's copy of the above documents to the ECCU.
4. Report to the ECCU for any serious adverse events within 5 working days
5. Report to the ECCU for any change of the research/project activities prior to conduct the activities.
6. Final report (AF 03-11) and abstract is required for a one year (or less) research/project and report within 30 days after the completion of the research/project. For thesis, abstract is required and report within 30 days after the completion of the research/project.
7. Annual progress report is needed for a two- year (or more) research/project and submit the progress report before the expire date of certificate. After the completion of the research/project processes as No. 6

APPENDIX D

PERMISSION LETTER FROM AOT

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บริษัท ท่าอากาศยานไทย จำกัด (มหาชน)
Reports of Thailand Public Company Limited

ต่อ ทสท. ที่ 23232/51

ฝทอ. ที่ 12188/51

สบอ. ที่ 4255/51

เรื่อง ขออนุญาตให้นิสิตหลักสูตรสาธารณสุขศาสตรมหาบัณฑิตเก็บข้อมูลเพื่อทำวิจัย
เวียน หอก.ฝทอ.

ตามที่ วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ได้แจ้งความประสงค์ขอให้นิสิต
ของวิทยาลัย ฯ หลักสูตรสาธารณสุขศาสตรมหาบัณฑิต สาขาวิชาการพัฒนาระบบสาธารณสุข (หลักสูตรนานาชาติ)
ชื่อ Miss Risa Takahashi เข้ามาดำเนินการแจกแบบสอบถามเพื่อนำข้อมูล ไปประกอบการทำวิจัยเรื่อง Travel health
risks faced by Japanese travelers in Thailand บริเวณห้องโถงผู้โดยสารขาเข้า - ขาออก อาคารผู้โดยสาร ทสท.
ระหว่างวันที่ 5 ม.ค. - 15 พ.ค. 52 ดังรายละเอียดตามแนบนั้น

สบอ.ฝทอ. ได้พิจารณาร่วมกับ ฝรภ. (นายฉัตรชัย เศรษฐประสิทธิ์) และประธานรายละเอียดเรื่องนี้
ด้วยวาจาแก่นิสิตของวิทยาลัย ฯ (Miss Risa Takahashi) แล้ว ขอเรียนให้ทราบดังนี้

1. การเก็บและรวบรวมข้อมูล นิสิตของวิทยาลัย ฯ เป็นผู้ดำเนินการโดยวิธีการ
แจกแบบสอบถามและสัมภาษณ์ผู้โดยสาร ตามตัวอย่างแบบสอบถามที่แนบ บริเวณห้องโถงผู้โดยสารขาเข้า - ขาออก
อาคารผู้โดยสาร ทสท. ระหว่างวันที่ 5 ม.ค. - 15 พ.ค. 52

2. สบอ.ฝทอ. พิจารณาแล้วเห็นว่า การเก็บรวบรวมข้อมูลของนิสิตของวิทยาลัย ฯ
ดังกล่าว จะเป็นประโยชน์ต่อการศึกษาและต่อ ทอท. จึงเห็นควรให้การสนับสนุนตามที่วิทยาลัย ฯ ขอมาได้
และเนื่องจากการพิจารณาเรื่องนี้เป็นเรื่องเร่งด่วนจึงไม่มีหนังสือตอบ ทั้งนี้ สบอ.ฝทอ. ได้ประธานรายละเอียด
การปฏิบัติด้วยวาจาแก่นิสิตของวิทยาลัย ฯ (Miss Risa Takahashi) ทราบในเบื้องต้น พร้อมทั้งได้ขอสำเนา
ข้อมูลผลการวิจัย จำนวน 1 ชุด ส่งให้ ทอท. หลังจากที่ได้ดำเนินการเสร็จเรียบร้อยแล้ว

จึงเรียนมาทราบ

อธิบดี ทสท. (อ.ดร.ปวีณา)

- ไปถึงปลัดทสท.
- ได้แนบสำเนา E-mail ให้องคมนตรี
และ CC : เก็บสำเนาไว้ในแฟ้มเพื่อสำรองข้อมูล

หอก.สบอ.ฝทอ.

อ.ค. 51

OK

ชื่อคุณ อธิปไตย อธิปไตย
02-2656076

ติดต่อคุณอติชิต ฐนวัตร 081-646-1120

* Please contact Khun Wachara/Mobile : 081-646-1120

APPENDIX E

RELIABILITY

1. Knowledge on travel health

Reliability Statistics

Cronbach's Alpha	N of Items
.733	7

Intra class Correlation Coefficient

	Intra class Correlation	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.281	.154	.457	3.742	30	180	.000
Average Measures	.733	.559	.855	3.742	30	180	.000

2. Attitude on travel health

Reliability Statistics

Cronbach's Alpha	N of Items
.718	8

Intra class Correlation Coefficient

	Intra class Correlation	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.242	.127	.408	3.548	30	210	.000
Average Measures	.718	.539	.846	3.548	30	210	.000

APPENDIX G**BUDGET**

Item	Amount (Thai Baht)
Stationery, printing, photocopy and binding	12,000
Transport	11,000
Communication	1,000
Refreshments	2,000
Publication	4,000
Translation	10,000
Total	40,000



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

CURRICULUM VITAE

Name: Risa Takahashi

Date of Birth: June 26, 1978

Place of Birth: Kyoto, Japan

Education

2004 Mar. Doshisha Women's College of Liberal Arts, Social Systems, Bachelors Degree

1999 Mar. Kyoto Social Insurance Nursing School, Nursing, Bachelors Degree

Work Experience

1999 Apr. – 2001 Mar. Registered Nurse, Kyoto Social Insurance Hospital, Kyoto

2003 May. – 2008 May. Psychiatric Nurse, Kitayama Hospital Kyoto

2006 Apr. – 2007 Sep. Registered Nurse, Maeda Surgery Clinic, Nara

2007 Apr. – 2008 May. Registered Nurse, Kansai Memorial Hospital, Osaka

Award or scholarship received

1997 – 1999 Japan MacDonald's scholarship

1997 – 1999 Kyoto Social Insurance Hospital Scholarship

2005 Doshisha Women's College of Liberal Arts Scholarship

2008 – 2010 Rotary Foundation Multi-years Ambassadorial Scholar