A SAMPLE OF FEMALE AUSTRALIAN TOURISTS' TRAVEL HEALTH INTENTIONS AND BEHAVIOUR WHILE HOLIDAYING IN SOUTH EAST ASIA

Submitted by

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"To travel hopefully is better than to arrive"
- Robert Louis Stevenson

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ABSTRACT

Over 456,000 Australians spend time holidaying in South East Asia each year; it is Australia's top tourist destination. Much of the attraction of South East Asia is the novelty of exotic tropical environments. However, these can result in strange and diverse health hazards.

This exploratory research used sequential in-depth interviews to explain the relationship between the travel health advice tourists receive and their behaviour while holidaying in South East Asia. When providing travel health advice to tourists travel health advisers need to understand the psychology underlying reasoned behaviours such as travel health behaviours if they want to persuade tourists to practice preventative health measures. After review of the relevant literature it would appear that this is the first time that the theory of reasoned action, developed by Ajzen and Fishbein in 1980, had been used to explore travel health beliefs, attitudes, intentions and behaviours.

The research found that the travel health advice received by tourists had a marginal effect on their travel health behaviours as the source, extent and relevance of the advice was left wanting. The tourists hoped to relax and desired a good time on their holiday by entering into the 'holiday spirit' offered by South East Asia. This impeded their ability to recognise the very real travel health risks they faced.

DECLARATION

I declare that this thesis is my original work except where references have been included and acknowledgment has been made in the text.

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CHAPTER ONE

1.0 Introduction

Australians are among the world's most travelled people. For many Australians international travel has become an increasingly integral part of their lives, with over 3.2 million Australians undertaking international trips per year (Australian Bureau of Statistics, 2001).

Nearly half (46%) of those Australians visiting abroad in 1999 went for holiday purposes (Australian Bureau of Statistics, 2001). Over recent decades there has been an increasing diversity in the reasons tourists choose to travel internationally and there is a vast array of travelling styles; backpackers, honeymooners, pilgrims and shoppers. There are more tourists visiting developing countries; they are more adventurous when travelling within developing countries and there is an increased emphasis on environmental and thrill-seeking activities.

An increasing number of Australians travel in South East Asia. Australian Bureau of Statistics (2001) figures showed that more than 456,000 Australians spent time holidaying in South East Asia annually. Asia's economic situation over recent years and the subsequent slump in Asian currencies have allowed tourists to make the most of the numerous bargain holiday offers in South East Asian countries. Much of the attraction of South East Asia is the novelty and contrast of new environments. Many of these same exotic environments hide dangers to unsuspecting tourists.

The availability of affordable international flights means there is a greater chance now, more than ever before, for the tourist to return from a tropical holiday in a developing country to Australia, a developed country in a temperate zone, in less than 24 hours. A tourist infected with malaria, viral hepatitis, typhoid fever or haemorrhagic fevers one day, may be on the other side of the world the next (Ewing, 1997). Consequently, they arrive home

reviewed. The literature that did touch on the relationship between travel health advice and the subsequent behaviour of tourists was generally written by medical practitioners and did not consider a nursing approach.

The provision of adequate health care for tourists combines epidemiology, public health, tropical health, infectious diseases and preventative health measures; there are few health care specialities covering such a wide range of subject areas. Specific courses in tropical medicine offered in The Tropical Health Programs at the University of Queensland or the London School of Hygiene and Tropical Medicine cover a small proportion of travel health medicine in short courses.

The increased movement of tourists on holiday around the world is unprecedented and is fundamentally changing human society and health. The speed of travel, allowing travellers to return home within the incubation period of infectious diseases, has implications for the nurse, the general practitioner, occupational health workers, public health physicians, infectious diseases physicians and of course the travelling public. "To travel hopefully is better than to arrive," said Robert Louis Stevenson in his classic Treasure Island, but to return ill has implications for all of the above.

It is anticipated that this research will provide another perspective on travel health, which will stimulate critical reflection, education and discussion among health care professionals who provide care for people planning to, or returning from, travel outside of Australia.

1.1 Aim

The primary aims of this thesis are:

- To explore the relevance of stated *beliefs, attitudes* and *intentions* in predicting travel health *behaviours* of Australians travelling to South East Asia;

- To explore the *travel health advice* sought and recalled by a sample of Australian tourists prior to, during and following their holidays in South East Asia in relation to its:
    - source
    - extent
    - relevance
    - persuasiveness;

- To explore the relationships between the tourists' *attitudes* and subsequent travel health *behaviours* in South East Asia;

- To ascertain the travel health *intentions* of a sample of Australian tourists holidaying in South East Asia;

- To identify the relationships between stated travel health *intentions* and reported travel health *behaviours*;

- To record a sample of Australian tourists' accounts of illness and/or accidents associated with travel in South East Asia.

In order to explore the relationship between the beliefs, attitudes, intentions and travel health behaviours of a sample of Australians travelling in South East Asia one has to gain an understanding of what influences travel health behaviours. Ajzen and Fishbeins' (1980) Theory of Reasoned Action provided the theoretical framework through which the relationship between the tourist's pre-travel advice, beliefs, attitudes and intentions were compared with the tourist's travel health behaviours. The data collected during the pre and post-travel interviews were analysed using the Non-numerical Unstructured Data Indexing, Searching and Theorising computer program. This analysis matrixed sweeping patterns and themes in the information received and permitted cross-case analysis. It enabled the researcher to discuss the relationships between the travel health advice recalled, the beliefs, attitudes, intentions and reported behaviours.

1.2 Limitations

As a research student the resources available to explore this rapidly changing and diverse area of health care were limited. The time and financial restrictions made it impossible to employ multiple observers, multiple methods or multiple data resources. As travel health concerns were not an area previously considered in nursing research, the area covered was virgin territory requiring explanation and promotion.

1.3 Definition of terms

The terms used in this research which require definition are:

i) International tourism -

"people who travel abroad for less than a year for reasons other than work"(Ruff, 1993:16).

ii) 'South East Asia' includes the following 11 countries -

Bangladesh	Lao People's Democratic Republic	
Brunei Darussalam	Malaysia	Singapore
Cambodia	Myanmar	Thailand
Indonesia	Philippines	Vietnam.

This classification of 'South East Asia' is taken from Mary Wilson's (1991) travel health reference and incorporates the countries included in the Australian Bureau of Statistics (1994) classification.

iii) Travel health advice –

Bernie Hudson (1991:315) states that when giving travel health advice the following subjects need to be addressed:

- Pre-travel immunisation;
- Chemoprophylaxis where indicated;
- Advice for health maintenance;
- An adequate medical kit;
- Adequate health insurance.

Advice given to travellers must be:

- Up to date,
- Individualised,
- Verbal and written.

iv) Beliefs –

"A belief links an object to some attribute... people may differ in their belief strength" (Fishbein & Ajzen, 1975:12).

v) Attitudes –

"A general feeling of favourableness towards the object or act in question" (Fishbein & Ajzen, 1975:11).

vi) Intentions –

"A special case of beliefs where the object is always the person himself (sic) and the attribute is always a behaviour; the strength of an intention is indicated by the person's own subjective probability that he (sic) will perform the behaviour in question" (Fishbein & Ajzen, 1975:12).

vii) Behaviours -

"Observable acts... that are studied in their own right" (Fishbein & Ajzen, 1975:13).

1.4 Organisation of the report

Chapter 1 Introduction

This chapter provided an insight into what motivated this research into travel health and recognised the need for a better understanding of travel health behaviour.

Chapter 2 Literature Review

The literature review explored a number of travel health concerns; travel health advice, trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases. Travel health was found to be a rapidly evolving

health speciality within which there was a vast range of information for the tourist, their travel health advisers and, in the event of illness, their care providers. The limited research into the psychology underlying travel health behaviour and the means of persuading tourists to practise preventative health measures is highlighted.

Chapter 3 Research Design

This exploratory research used sequential in-depth interviews to explain the relationship between travel health advice and the behaviour of tourists holidaying in South East Asia. After review of the relevant literature it appears that there have been few, if any, occasions where the Theory of Reasoned Action, developed by Ajzen and Fishbein in 1980 and used to explain numerous health behaviours since, had been used in exploring travel health behaviours.

Chapter 4 Findings

The tourist's travel health behaviours were influenced by a variety of beliefs, attitudes and intentions regarding the risks associated with all of the areas of concern; trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases.

Chapter 5 Discussion

The research has shown that the travel health advice given to tourists holidaying in South East Asia varies considerably in its source, extent, relevance and persuasiveness. The influence of travel health advice on the tourist's beliefs, attitudes, intentions and behaviours is dependent upon the adviser's knowledge, communication skills and ability to address sensitive health issues and the tourist's hope and desire to relax and have a good time.

Chapter 6 Conclusion

The environment of South East Asia as a holiday destination positively encouraged tourists to relax and have a good time. This 'holiday spirit' inhibits the pre-travel health advice from influencing the behaviour of the tourist as they and their travel health advisers intended.

CHAPTER TWO

Literature Review

2.0 Introduction

This chapter reviewed the literature that was available concerning the rapidly evolving health speciality of travel health. It explored the vast range of advice available to tourists to South East Asia, the sources of travel health advice and the effectiveness of this advice in persuading tourists to practise preventative travel health behaviour.

As there was a limited amount of comprehensive Australian literature available, international papers form the majority of the relevant literature reviewed. The literature was accessed through medical reference organisations such as the Australian Department of Health, Centers for Disease Control and Prevention, Foreign Affairs and Trade Australia, London School of Hygiene and Tropical Medicine, Tropical Health Program at the University of Queensland and the World Health Organisation. Journal indexes such as CINAHL, the Health Reference Center and MEDLINE were used to identify the relevant journal articles on travel health. Access was granted to specialist libraries such as those at Fairfield Infectious Diseases Hospital, Monash Medical Centre and the Infectious Diseases Unit at Royal Melbourne Hospital. Travel health brochures and pamphlets were collected from travel health clinics and travel agencies. Conference papers and media releases were also considered.

The review of literature presented in this chapter examines the health risks taken by Australians travelling in South East Asia and other relevant literature. The chapter consists of six sections that address the aims of this research. The sections are:

2.1 Travel health

2.2 Travel health advice

2.3 Knowledge of travel health concerns for tourists in South East Asia

2.1 Travel Health

While travel is an important leisure activity in the twentieth century, travel health is still a small specialty area, though it has established a legitimate role in the prevention and treatment of travel related illnesses. To date, there has been a limited amount of literature available on the prevalence of illness among Australian tourists and their travel health behaviour. Little attention has been given to empirical research, even though it forms the scientific basis for the provision of accurate medical advice for tourists (Wilks & Grenfell, 1997). Despite the recent coverage of tourists' inflight health concerns, such as DVT, much of the research regarding travel health behaviours of Australian tourists in South East Asia has focused on sexually transmitted diseases, ignoring the commonest travel health concerns identified in the literature available: trauma, diarrhoea, fever and vaccine preventable diseases (Dawood, 1993).

A review of the relevant literature found that since 1988, when travel medicine was recognised as a medical specialty, there has been a trend in international papers on travel medicine to move away from the original focus on the pathogenesis of travel related diseases. The body of research developed since the recognition of travel health provided the scientific and diagnostic basis for disease prevention and treatment guidelines for travellers that are still used today. Medical reference organisations such as the Centres for Disease Control and Prevention have been the most prolific publishers, such as their *Mortality and Morbidity Weekly Report*, regarding current travel health risks, vaccinations and treatments. Travel health advice has traditionally focused on vaccinations and the treatment of travel related

illnesses. While these are important considerations, research into other travel health risk factors which tourists can not be vaccinated against such as trauma, diarrhoea, fever and sexually transmitted diseases has not been as prolific. It is only in recent years, since 1997, that researchers have started to undertake more reflective evaluations of the source, extent, relevance and persuasiveness of the travel health advice given to tourists and the psychology underpinning the influences on tourist's intentions and travel health behaviours.

2.2 Travel Health Advice

With the increasing popularity of international travel, there has been an explosion in the scope and variability of travel health advice available to tourists via the mass media. In order to make sense of the vast array of information available Kodkani, Jenkins and Hatz (1999) suggested it was essential for travel health advisers to collaborate, so that there was some consistency in the travel health advice given to tourists. It was only with such cooperation that the travel health adviser was able to make the finely balanced risk judgements regarding the health concerns that the tourists they were caring for may face during their travels. To do this they needed to be well informed.

A range of information sources exists to aid travel health advisers in providing comprehensive advice. Books, journals and charts are increasingly provided as resources for travel health advisers (Leggat, Heydon, & Menon, 2000). Books such as the Centres for Disease Control and Prevention's *Health Information for International Travel* (updated annually, usually in the winter) and the World Health Organisation's *International Travel and Health* (updated on an annual basis in January) are helpful primary references. The Centres for Disease Control and Prevention's *Summary of Health Information for International Travel* is published biweekly, this is the well known "*blue sheet*" that lists countries with areas infected with cholera and yellow fever. It must be used as a supplement to *Health Information for International Travel* and cannot be

relied upon for detailed information on disease outbreaks other than yellow fever and cholera. This summary is distributed to health and travel professionals who request it form the Centres for Disease Control and Prevention. The World Health Organisation's *Weekly Epidemiological Record* is available by paid subscription and contains more comprehensive information on disease outbreaks worldwide. However, changes in world health conditions occur frequently and these books, bulletins and newsletters are often out of date by the time they are published. Computerised travel health information has been available over the World Wide Web since 1982 (Carroll, Behrens, & Crichton, 1998). The computerised travellers' health databases provided by the Australian Department of Health, the Centres for Disease Control and Prevention, Foreign Affairs and Trade Australia and the World Health Organisation offer the advantage of constant updating.

A study by Leggat, Heydon and Menon (2000) into travel health resources used by general practitioners, when advising tourists from New Zealand, provides an insight into the usefulness of various travel health resources. Only 23% of those surveyed indicated that they "always" used travel health resources (international guidelines, journals and access to computerised databases via the Internet) in their practice of travel medicine. Half of the participants indicated that they "usually" used these resources and a further 27% indicated that they used the resources "sometimes". There was 1% of general practitioners that did not use any resources at all when advising travellers on travel health.

Despite the availability of up to date travel health information, several studies have raised concerns about the standards of travel health advice provided to tourists. These concerns range from inadequate and inappropriate malaria and vaccination advice (Townsend, 1998), inappropriate diarrhoea prevention strategies (McIntosh, Reed, & Powers, 1997) to poor communication of risks to personal safety (Leggat, Heydon, & Menon, 1998). In fact, McIntosh, Reed and Powers (1997) found that tourists who had received travel health advice experienced more illnesses

than those who did not did. This result may be explained if you take into account that the tourists at greater risk may be more likely to seek travel health advice and take precautions.

2.2.1 Travel Agents as Travel Health Advisers

Prior to their trip abroad most tourists have had contact with a travel agent, thereby providing an opportunity for travel health education to begin (Ivatts, Plant, & Condon, 1999). Travel agents provide an important role in providing basic health advice to all tourists and are increasingly involved in the minimisation of health risks associated with travel (Simpson, 1993). The travel agent is not expected to give medical advice. They are expected to recommend basic preventative measures such as eating and drinking safely; how to avoid mosquito bites; the need to practise 'safe sex'; the need to avoid injury and the need to seek medical assistance if suffering a fever (Ruff, 1993). Australian travel agents are required to provide travel health advice by the Australian Federation of Travel Agents and risk liability if advice is not given, or due care is not taken (Dougal, 1993).

In a study of 145 Western Australian travel agencies conducted by Ivatts, Plant and Condon in 1999, 56% of the travel agents indicated that they "usually" gave broad travel related health guidelines and recommended that the tourist consult a medical practitioner. Almost all of the travel agents reported discussing travel health insurance however, very few provided information on sexually transmitted diseases. Tilman Ruff (1993) suggested that this could be because travel agents were reluctant, or may have lacked the communication skills, to discuss sensitive travel health issues such as 'safe sex' practises. They may have found it easier to include 'Travel Safe' campaign brochures, concerning sexual health practises, in each tourist's travel papers at the time of ticketing as is required by The Australian Federation of Travel Agents (Simpson, 1993).

Dawood suggested, in 1993, that travel agents had a poor reputation as sources of travel health advice. A year later, Behrens, Steffen and Looke

(1994) found that the travel health information provided by travel agents was often inaccurate or misleading. The provision of information appeared to have improved by 1998 when Townsend suggested that 27.9% of tourists thought travel agents provided the most informative, and 23.5% the most useful, travel health advice available. Western Australian research by Ivatts, Plant and Condon (1999) sought to discover the extent of travel agents' knowledge of travel health. They found that over 80% of travel agents responded correctly to statement eliciting their knowledge about malaria and food safety. However, the majority incorrectly answered questions on dengue fever and altitude sickness. Fifty six percent thought that there was "not enough" readily accessible travel health information available to them and 52% stated that they would have liked to be more involved in providing health information to their clients.

2.2.2 Health Professionals as Travel Health Advisers

Health care professionals were the most frequently used resource called upon to provide travel health advice for tourists according to research by Leggat, Heydon and Menon (1999). Health professionals are usually familiar with the tourist's lifestyle as well as with their immunisation history and relevant medical history. Despite these benefits, Cottrell-Dormer (1998) found that only one in five Australian tourists sought travel health advice from their own health adviser.

The prescription of medications and vaccinations was the primary concern of general practitioners when advising tourists during pre-travel consultations, according to Dawood (1993). He suggested that the general practitioner's emphasis remained firmly orientated to travel health advice about vaccine recommendations, and possibly 'outbreaks' of vaccine preventable diseases such as meningitis and Japanese encephalitis. Hughes and Carlisle (2000) suggested that the travel health advice should also include malaria prophylaxis and, the standard, "boil it, peel it or forget it" advice regarding eating and drinking. Leggatt, Heydon and Menon (1998) found that only half of the general practitioners they asked included advice

to tourists on personal safety, health and travel insurance and finding medical assistance abroad. Even so, Townsend (1998) found that 59.4% and 52.2% of tourists who had consulted general practitioners found them the most informative and most useful advisers respectively.

In their 1998 research into travel health advice Carroll, Behrens and Crichton found that British registered nurses working in health centres were called upon to counsel and immunise significantly more tourists than did general practitioners. The doctors consulted and vaccinated an average of 10 tourists per month while the registered nurses, on the other hand, advised and vaccinated an average of 28 tourists per month. Sixty eight percent of these nurses said they had received formal training in travel health medicine, however most cited lectures or half- to one-day courses organised by pharmaceutical companies. Their opportunities for training had therefore been limited, and there was likely to be a disproportionate emphasis on immunisation and a dearth of advice on other health measures.

Although general practitioners and registered nurses gave most pre-travel health advice a number of tourists also sought advice from pharmacists. Little is known about the quality and quantity of travel health advice or the resources used by this group of travel health advisers (Dawood, 1993). Of the 136 pharmacists approached by Kodkani, Jenkins and Hatz in 1999, 88% said that they "sometimes" gave travel health advice with 56% stating that they gave travel health advice "regularly" (two or three times a month). Ninety five percent of the pharmacists were able to name the three most important measures in preventing mosquito bites yet, only 19% of the advice on malaria prevention given to tourists were accurate. Only 13% made correct recommendations about vaccination. The pharmacists all recommended anti-diarrhoeal medications but only 59% mentioned the need for increased fluid intake for treatment of traveller's diarrhoea. However, more than 55% said that they would consult documentation before giving any advice. Where documentation was used the accuracy of advice increased by 55%, especially for malaria prevention. Eight percent of the

pharmacists stated that the tourists should seek advice from a medical practitioner.

The literature suggests that the quality of the travel health information and advice vary considerably between health care professionals. As the discipline of travel medicine becomes increasingly specialised the health care professionals need to enhance their skills to meet the demands of tourist health through collaboration and research at the undergraduate, post-graduate and professional practice levels (Carroll, Behrens, & Crichton, 1998). Leggat, Heydon and Menon (1998) found that nearly two thirds (65%) of the health care professionals providing travel health advice as part of their general practice would be interested in undertaking specialist education in travel medicine.

2.2.3 Travel Health Specialists

The effectiveness of travel health advice is partly dependent upon the perceived expertise and trustworthiness of the adviser. Any person giving travel health advice to tourists must be accurate, current and authoritative. There has been a growth in the number of specialised Travel Health Clinics in Australia as well as the United Kingdom, USA and many European countries (Dawood, 1993). Increased numbers of travellers have turned to such commercial clinics rather than to their general practitioner or health clinic, even when this means that they have to pay more (Behrens, Steffen, & Looke, 1994). Their reasons included convenience and the availability of some of the less commonly given vaccines (such as those for meningococcal meningitis and Japanese encephalitis). Such clinics undoubtedly have their advantages: the staff is very experienced in vaccine administration, which is important when it comes to intra-dermal injections of rabies vaccine, for example.

The pre-travel consultations at travel health clinics are usually face to face consultations and are scheduled four to six weeks before departure. Pre-travel medical planning may require two to three months or longer for

completion of a full immunisation schedule for some travellers (Dardick, 1992). Most specialised travel clinics allow between 30 and 60 minutes for appointments while general practitioners are often limited to their normal 15 minutes consultation when providing travel health advice.

While Cohen (1996) found that the emphasis of specialised travel health clinics was firmly on preventative health advice and education, as commercial entities the clinics could not readily charge for information and advice, and therefore had no particular commercial incentive to provide it. Some information and advice may not be given, particularly when they were busy as Hill found in 1996, only 39% of travel clinics worldwide routinely found time to advise tourists about health and travel insurance. Despite this Townsend (1998) suggested that specialist travel health centres were perceived to be the best overall source of travel health advice with 66.7% rating them most informative and 60% most useful by the tourists he surveyed. This was perhaps to be expected bearing in mind the specialised nature of the service offered.

2.3 Knowledge of Travel Health Concerns for Tourists in South East Asia

Despite the growing specialty of travel medicine, the incidence of travel related illnesses have remained virtually unchanged in the last 20 years (Bruni & Steffen, 1997). South East Asia attracted 25% of Australian international tourists and was the setting for 24% of their deaths (Prociv, 1998). The travel health risks to short-term tourists in South East Asia, particularly in rural areas, are considerable.

Travel health risk factors include poor or uncertain hygiene and sanitation, close contact with local people and difficulty accessing more than very basic medical care (Yung, 1994). The individual tourist's travel health risks vary considerably depending on personal, behavioural, sexual, seasonal and geographic factors (Porter, Stanwell-Smith, & Lea, 1992).

In a study of more than 2000 returned travellers, Bruni and Steffen (1997) suggested that more than one third (37.9%) of tourists suffered travel related illnesses, which led to 10.6% seeking medical assistance. Only 7.1% of the sample consulted a doctor while abroad, and more than twice as many did so after returning home. Illness incapacitated 14.4% of tourists and took up 2% of their holiday time. Hughes and Carlisle (2000) suggested a similar rate of morbidity among the returned travellers they studied; 41% reported travel related illnesses that resulted in 10% being confined to bed. A total of 14.4% of the sample sought travel health advice while they were away; 7.5% from a pharmacist, 4.8% from a medical practitioner and 2% went to hospital. On their return home a further 4.8% consulted their doctor and 3% sought treatment from a hospital.

Hill (2000) stated that those tourists who suffered travel related illnesses were mostly female and travelled for longer periods than those who were not ill. He estimated that each day of travel increased the chance of becoming ill by 3 - 4%.

Paul Prociv (1998) suggested that the numbers of accidents, illnesses and incidents that required medical intervention were grossly under-reported by Australians travelling overseas. This may be due to the fact that, as Behrens, Steffen and Looke (1994) found, 90% of travel related illnesses manifest up to six months post-exposure.

2.3.1 Traveller's Diarrhoea

Traveller's diarrhoea has been found to be the most commonly reported cause of disease in tourists and all tourists were expected to suffer this disease at some point on their holiday (Hill, 2000). Traveller's diarrhoea, whatever the colloquial name it has been given, such as 'Bali belly' or 'Rangoon runs', are all the same illnesses and affect up to 50% of short-term tourists (Bardhan & Fuchs, 1996). Reinthaler, Feierl, Stunzer and Marth (1998) found that bacteria was the cause of traveller's diarrhoea in 39% of cases, parasites 34% and viral pathogens 27%.

Tulloch and Richards (1993) found that irrespective of the cause, more than 90% of diarrhoeal episodes would resolve in three days. However, continuous traveller's diarrhoea necessitated urgent medical attention. Yung (1994) suggested that tourists should be advised to seek medical assistance if their diarrhoea was persistent, bloody, accompanied by fever or chills, or if they became dehydrated or the diarrhoea had not responded to antimicrobial medication.

Reinthaler, Feierl, Stunzer and Marth (1998) concluded that traveller's diarrhoea was usually self-limiting, lasting three to seven days, and was rarely life threatening. They also found that it was more common in people aged 20 to 29 years than in any other age group. Hughes and Carlisle's (2000) study revealed that 50% of tourists with traveller's diarrhoea sought assistance from a pharmacist, 44% consulted a doctor and 2% were admitted to hospital.

The methods for controlling traveller's diarrhoea included a reduction in risk factors, immunological protection, rehydration, antimicrobial and antimotility agents (Ericsson, 1994). Passive immunological protection with bovine immunoglobulins had shown some promise in preliminary studies and cholera vaccines appeared to demonstrate cross protection against E.coli and other organisms responsible for traveller's diarrhoea (Baqi & Keystone, 1996). Ericsson (1994) recommended the use of prophylactic low dose antimicrobials and found that they could prevent as much as 90% of traveller's diarrhoea. In the same year, Pugh and del Fante suggested that antimicrobial prophylaxis should be considered for tourists who had suffered traveller's diarrhoea during previous travels. But, by 2000 the Centers for Disease Control and Prevention (2000j) was not recommending the use of antimicrobials to prevent traveller's diarrhoea. The concerns relating to the use of antimicrobial prophylaxis were heralded by Bunnell in 1998 when he reported the Centers for Disease Control and Prevention's concern about the incidence of adverse reactions and confusion on how to treat illness despite antimicrobial prophylaxis. The breeding of antimicrobial

organisms was also of grave concern as multiple resistant Campylobacter was already common place in South East Asian countries such as Thailand (Ericsson, 1994).

If the tourist developed traveller's diarrhoea the most important treatment was the replacement of fluids and salts lost in diarrhoeal stools, regardless of its source (Centers for Disease Control and Prevention, 2000j). Almost any drink, coupled with a source of salt (salted biscuits), would hydrate most ill tourists. Rehydration was best achieved through the use of a solution such as Gastrolyte™ or the World Health Organisation's Oral Rehydration Salts solution (Traveller's Medical and Vaccination Centre, 1996). The old cliche of starving a bug out of one's system lead to weakness and further dehydration. Bunnell (1998) found that light carbohydrate rich foods such as rice, pasta, potatoes, dry biscuits, bananas and papaya were tolerated best.

Traveller's diarrhoea was usually acquired through the ingestion of contaminated food and water, or the washing of food and cooking utensils in contaminated water. Food and waterborne infections could cause diarrhoea and vomiting (typhoid fever, cholera and parasites), liver damage (hepatitis) or muscle paralysis (poliomyelitis). When sanitation was poor, drinking water and food could easily become contaminated (Foreign Affairs and Trade Australia, 1998a). Meticulous attention to the preparation of food and water decreased the likelihood of traveller's diarrhoea significantly (Centers for Disease Control and Prevention, 2000j).

2.3.1.1 Water

Water was the vehicle via which many viral, bacterial and protozoan diseases were acquired according to Reinthaler, Feierl, Stunzer and Marth (1998). The Centers for Disease Control and Prevention (2000j) strongly encouraged tourists to assume that all water was contaminated until they knew to the contrary. If the tourists could not be certain that the water was safe for drinking, than measures needed to be taken to purify the water.

Simple filtration through cloth, mesh or ceramic materials would remove sediment, debris and large parasite ova, however, viruses, bacteria and protozoa would remain. There were few published reports on the efficiency of portable filters and the Centers for Disease Control and Prevention (2000j) made no recommendations as to their use. Chemical disinfection of water could be achieved with iodine or chlorine. Both were safe and affective when properly used. The concentration and duration of water treatment were critical and were dependent on the degree of contamination. With so many variables involved, many authorities discouraged disinfection of water as a means of water purification (Traveller's Medical and Vaccination Centre, 1995; Yung, 1994). The Centers for Disease Control and Prevention (2000j) suggested that boiling was the most reliable method to purify water. Yung (1994) found that boiling water vigorously, for at least 10 minutes, would kill any bacteria. But boiling water for 20 minutes would kill most parasites as well, though this was often impractical and was probably unnecessary.

Where water was contaminated, tourists should not drink, brush their teeth, wash wounds, wash food or eating utensils with water, unless they had disinfected it themselves (Centers for Disease Control and Prevention, 2000j). Tourists therefore needed to have strict personal hygiene habits. The Traveller's Medical and Vaccination Centre (1995) found that simply washing hands before eating was an affective way to decrease the chance of ingesting unwanted organisms.

2.3.1.2 Food

Dining out offers the tourist the opportunity to mix with local people, experience the local delicacies and participate in the local rituals surrounding food. Foreign foods are part of the experience of travelling and are the primary cause of infection in tourists to South East Asia (Yung, 1994).

Food hygiene was undoubtedly the one health hazard that tourists found most difficult to address; and few succeeded in fully putting precautions into practise. Reinthaler, Feierl, Stunzer and Marth (1998) found that tourists advised to be careful with food often thought that they were safe eating at restaurants at expensive hotels. In reality such restaurants offered no guarantee of safety from diseases from poor hygiene. Reinthaler, Feierl, Stunzer and Marth (1998) concurred with Pugh and del Fante (1994) in advocating the advantages of choosing food carefully from the local market and eating food from street stalls that has been cooked in front of the tourist.

Any raw food may be contaminated. Fresh, ground grown, leafy vegetables were contra-indicated according to Buckley (1995) as human manure was used as a fertiliser in some areas. The Traveller's Medical and Vaccination Centre (1995) found the standard, 'boil it, peel it or forget it' to be sound advice and recommended thick-skinned fruit, such as bananas, citrus fruit and papaya as they could be peeled immediately before eating.

Mills (1994) recommended that tourists avoid dairy products such as milk, ice cream, cheese and yoghurt that may be unpasteurised. Pugh and del Fante (1994) suggested that cold, raw or undercooked meat might be contaminated with bacteria or parasites and the Centers for Disease Control and Prevention (2000j) found that some fish were not safe even when cooked because of the presence of toxins, ciguatera, in their flesh. They found that local knowledge was important here as fresh water fish were free from ciguatera while tropical reef fish could be toxic, at unpredictable times, especially if they were caught on tropical reefs rather than in open seas. It was concluded that all shellfish were best avoided, as they were a potent source of hepatitis A virus. Raw oysters, barbecued mud crabs and cold, previously cooked, prawns were especially risky.

2.3.1.3 Hepatitis

In any situation where tourists might have contracted traveller's diarrhoea, so might they have contracted viral hepatitis. Bardhan and Fuchs

(1996) suggested that viral hepatitis was one of the most important health hazards in South East Asia, as it is a major cause of morbidity and mortality. The pattern and transmission of the different types of viral hepatitis varied considerably and have widely differing prognoses and implications for those who became infected (Fairfield Hospital Travel Health Clinic, 1994b) (Refer to 2.3.5 Diseases Transmitted through Intimate Contact with People).

Hepatitis E virus was recently recognised as the cause of more than half of the cases of sporadic hepatitis in adults during non-epidemic periods and was found to be more common than hepatitis A in some areas (Bardhan & Fuchs, 1996; Zuckerman, 1997). Johnson and Locarnini (1998) found that the incidence of hepatitis E in Australia was largely confined to tourists as it has rarely, if ever, been contracted in Australia. They suggested that food and water precautions were the only means of preventing this disease as there has been no vaccine, and immunoglobulins have had no affect. Zuckerman (1997) found that the case fatality rate for hepatitis E was 1-2% overall. Among pregnant women, especially those in the third trimester, the fatality rate was as high as 20%.

Hepatitis A was the most common vaccine preventable disease contracted by tourists to South East Asia (Yung & Ruff, 1994). Research by Buckley (1995) showed that many cases of travel related hepatitis A occurred in tourists with standard itineraries, accommodation and food consumption behaviours. Yung (1994) found that even in five star resorts, the non-immunised tourist had a 1:300 chance of developing hepatitis A. The risk to the backpacker or budget tourist was as high as 1:50. Gust and Ruff (1993) found that the person to person transmission of hepatitis A occurred most readily under conditions of overcrowding, with limited access to clean water and inadequate disposal of sewage. The Fairfield Hospital Travel Health Clinic (1994b) suggested that tourist's good personal hygiene through washing their hands after using the toilet and before preparing food could reduce the risk of contracting hepatitis A substantially.

2.3.1.4 Cholera

The acute diarrhoeal illness cholera is epidemic in Cambodia, Lao People's Democratic Republic, Myanmar, Philippines and Vietnam according to the Centers for Disease Control and Prevention (2000h). Like hepatitis A "nothing has been found to favour the extension of cholera more than the want of personal cleanliness" (Jaret, 1991,p. 121).

A vaccine for cholera is available, however the Centers for Disease Control and Prevention (2000h) have not recommended it for the majority of tourists. Mott and Kinnersley (1990) found that medical practitioners over-prescribed cholera vaccine by 280%. This is despite the fact that cholera immunisation reduced the severity of the illness in only 50% of cases, and gave tourists a false sense of security as it conferred incomplete immunity and did not prevent the spread of the disease (Centers for Disease Control and Prevention, 2000h).

2.3.2 Vaccine Preventable Diseases

Vaccination has been the health precaution most closely identified with travel and has formed an integral part of pre-travel preparations (Falvo, Win, & Horowitz, 1996). The vaccinations received are determined by the tourist's travel itinerary and are dependent on their age, prior immunisation history, allergies and general wellbeing (Pugh & del Fante, 1994). Jong (1992) advised that the geographic location of the holiday, the season of travel, accommodation style and the activities all needed to be taken into consideration when deciding on a vaccination schedule. Yung (1994) went on to suggest tourists on holiday in Bangkok, Kuala Lumpur, Kuta Beach, Manila or Singapore, for less than two weeks, who were staying and eating in high standard accommodation and restaurants did not usually require special vaccinations. On the other hand, Pugh & del Fante (1994) found that tourists who went for long holidays to multiple destinations or on rural treks required a more comprehensive preparation.

Vaccination schedules need to have been tailored to allow sufficient time for the vaccinations to be affective before the tourist arrived at their holiday destination. Primary courses of some vaccines take several weeks and may cause adverse reactions. Therefore, del Fante (1994) advised that vaccine schedules should be tailored over at least six weeks. Yung (1994) found that this was often not possible as many tourists had left their preparations to the last minute.

The Commonwealth Serum Laboratories (1995) have found that when a rapid vaccination schedule was required live vaccines, such as tuberculosis, oral polio, oral typhoid, measles, mumps and rubella could be given on the same day. They have found that inactivated vaccines could be given, in the main, on the same day as long as they were given at separate injection sites, as inactivated vaccines do not tend to interfere with live vaccines. Research by del Fante (1994) found that general well being needs to be taken into account when tailoring a vaccination schedule as live vaccines should not be given to immunocompromised tourists.

It should have been emphasised to tourists that no vaccine is 100% affective and that vaccination is only one part of safe travel health behaviour. There is the chance that once the tourist has received a particular vaccine, they assume that they are immune to all similar infections, for example, "recipients of typhoid vaccine may well think they are immune to all traveller's diarrhoea" (Yung, 1994, p.4).

Falvo, Win and Horowitz (1996) suggested that the travel health consultation was one of the only opportunities health professionals have to ascertain an individual's immunisation status as they discovered that most adult patients have limited records or recall of their vaccination records. Jennens (1995) has found that travel provides the ideal opportunity to update the tourist's vaccinations. The Centers for Disease Control and Prevention (2000e) recommend that tourists at least have a primary course of diphtheria, tetanus, poliomyelitis, measles, mumps and rubella vaccines.

2.3.2.1 Adult Diphtheria and Tetanus

When tourists have planned environmental holidays, thrill-seeking activities or back-packing where health services are not reliable the Centers for Disease Control and Prevention (1997a) recommended a booster shot of adult diphtheria and tetanus vaccine if more than five years had elapsed since their primary vaccination or previous booster. Fairfield Hospital Travel Health Clinic (1994a) suggested that tourists might also avoid contracting tetanus practising good wound care to cuts, burns and penetrating wounds. Diphtheria is also transmitted through skin wounds, as well as through close contact with nasal or throat secretions of an infected person (Jones & Nathwani, 1995). Jennens (1995) found that diphtheria is still widespread in South East Asia even though it is uncommon in Australia.

2.3.2.2 Poliomyelitis

Poliomyelitis is a viral infection spread by contaminated food, which can damage the spinal cord causing paralysis (Fairfield Hospital Travel Clinic, 1994a). All tourists who intend holidaying for some time in South East Asian countries should have a booster dose of poliomyelitis vaccine if 10 years have elapsed since their primary vaccination course according to the Centers for Disease Control and Prevention (1997).

2.3.2.3 Measles, Mumps and Rubella

Measles is highly endemic in South East Asia and according to the Traveller's Medical and Vaccination Centre (2000) posed a real threat to the non-immunised tourist. Measles can be severe, and of those not immunised 99.9% will contract the disease (Royal College of Nursing, 1997, p.1). As the measles, mumps and rubella vaccine was introduced into Australia in 1970, Fairfield Hospital Travel Clinic (1994b) found that many adults might have missed the disease as well as the vaccine.

2.3.2.4 Typhoid Fever

The Fairfield Hospital Travel Clinic (1994a) advised that tourists to South East Asia were at risk of typhoid fever, especially when touring smaller towns, villages and rural areas. In 2000 Cobelens, Kooij, Warris-Versteegen and Visser found that 12% of one tour group contracted typhoid. The Centers for Disease Control and Prevention (2000i) stated that food and water precautions were essential when decreasing the risk of infection with typhoid fever as the consumption of heavily contaminated food or water may provide such a large infectious dose that any immunity resulting from vaccination could be overwhelmed. Cobelens, Kooij, Warris-Versteegen and Visser (2000) found that all of the tourists who contracted typhoid fever had been immunised with the oral typhoid vaccine prior to their holiday.

2.3.2.5 Meningococcal Meningitis

Meningococcal meningitis is one of the most serious travel related bacterial diseases and can be fatal. It is transmitted via droplet infection or by direct person to person contact (Commonwealth Serum Laboratories, 1995). Yung (1994) found that those tourists at the greatest risk of infection with this disease were those backpacking through Vietnam. The Traveller's Medical and Vaccination Centre (1995) suggested that the risk of tourists getting the disease was small, but they acknowledged that the risk was proportional to the length of stay and the amount of contact with local people.

2.3.2.5.1 Respiratory Illnesses

Dr Tilman Ruff (1994) found acute respiratory illnesses to be common amongst tourists. Hill (2000) suggested that as many as 26% of tourists suffered some respiratory illness while travelling. Petrucelli (1995) suggested that the fact that people join friends, family and groups to travel directly contributed to the occurrence of respiratory infections. The common

'Flu' is an acute respiratory illness that "could easily ruin one's trip" (Yung, 1994, p.32). The Fairfield Hospital Travel Health Clinic (1994b) found that influenza is prevalent throughout South East Asia and does not follow a seasonal pattern, as it does in Australia, rather it occurs all year around. Jones and Nathwani (1995) suggest that tourists should be advised that the affects of acclimatisation and jet lag might obscure the signs and symptoms of influenza.

Despite tuberculosis being one of South East Asia's most important health concerns the emphasis that travel health guidelines and advisers' place on tuberculosis and specific recommendations for prevention varies widely according to a review by Houston (1997). Tuberculosis is transmitted by air, and prolonged exposure to a person with untreated tuberculosis is required for transmission to occur. Therefore, the short-term tourist is not considered to be highly susceptible according to the Fairfield Travel Health Clinic (1994a).

2.3.2.6 Japanese Encephalitis

Japanese encephalitis is an influenza type illness caused by a mosquito borne disease that occurs primarily in the South East Asian countries of Bangladesh, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Thailand and Vietnam (Centers for Disease Control and Prevention, 2000d). Yung (1994) found annual outbreaks of Japanese encephalitis peak in May-June, during the wet season. All tourists are advised to take precautions to prevent insect bites as described in the 2.3.4.4 Bites section below.

2.3.3 Fever

Fever is the commonest symptom reported by international travellers, according to Yung and Ruff (1994), and is likely to be travel related in otherwise healthy young tourists. Although viral respiratory illnesses (eg. influenza) are the most common cause of fever in tourists Conlon (1995)

advised that every fever experienced while travelling in, or upon returning home from, South East Asia should be regarded as malaria until proved otherwise.

Yung and Ruff (1994) have found that most travel related fevers, in tourists to South East Asia, are caused by diseases with short, less than three weeks, incubation periods such as P. falciparum malaria, hepatitis A, typhoid and dengue fever. Although most febrile, travel related, illnesses are acute, Conlon (1995) found that some such as P. vivax and P. ovale malaria, tuberculosis and human immunodeficiency virus (HIV) can have latent periods of months or years.

2.3.3.1 Malaria

Malaria remains a major travel health concern in South East Asia despite eradication and control programs spanning four decades according to Babiker, Elawad and Ong (1998). The risk of tourists contracting malaria exists throughout the year, in all parts of South East Asia, except Brunei Darrusalam and Singapore according to the Centers of Disease Control and Prevention (2000f). The Centers of Disease Control and Prevention (2000f) found that backpackers spending prolonged periods in rural areas of Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines and North Vietnam are at significantly greater risk of contracting malaria than are tourists staying in the coastal resorts of Bali and Thailand. According to Yung and Ruff (1994, p.46) tourists to Cambodia, South Vietnam and the forested borders of Thailand face the highest risk.

More than 600,000 Australians travel to areas where malaria is endemic and it has been estimated by Yung (1994) that 1.5 per 1000 Australian tourists develop malaria. Picot, Goujon, Sylvestre and Armengaud (1994) found that 75% of tourists to South East Asia recognise that they are at risk of contracting malaria. Semaille et al. (1999) found that 22.6% of tourists visiting areas where malaria is endemic had not sought any advice on prevention and the advice given to those tourists that had sought advice was

inferior, resulting in one in three tourists to endemic areas being unwittingly at risk of malaria.

There are four species of the malaria parasite; Plasmodium falciparum, Plasmodium vivax, Plasmodium malariae and Plasmodium ovale. All forms are associated with significant morbidity. Fairfield Travel Health Clinic (1994) found that the most common was P. vivax and the most dangerous was P. falciparum.

Yung (1994) found that the major considerations in the choice of malarial prophylaxis for tourists are the places they plan visiting, the prevalence of malaria carrying mosquitoes and the drug resistance pattern in those areas. None of the medications currently available offer complete protection; nevertheless, Yung (1994) found that they reduce the mortality rate by 38%.

The emergence of multi-drug resistant malaria in South East Asia has narrowed the options in using chemoprophylaxis to prevent malaria infection. . Heppner and Ballou (1998) suggested that P. falciparum malaria was almost universally resistant to the anti-malarial chloroquine and that P. vivax had become resistant to chloroquine in South East Asia. McConnell (1998) also reported P. falciparum resistance to mefloquine, halofantine, and primethamine/sulphadoxine, and in Thailand, quinine.

Mefloquine, a quinine-like drug, is the most widely used anti-malarial medication according to Rogerson, Biggs and Brown (1994). McConnell (1998) suggests that mefloquine is popular with tourists as it has a long half-life (6 to 23 days), which permits convenient once weekly dosage. It is affective in preventing both P. falciparum and P. vivax malaria, including many strains resistant to other drugs (Yung, 1994).

Phillips and Kass (1996) found that adverse affects are experienced by 36.5% of those tourists taking mefloquine and present after the first one or two doses. The main, severe, adverse affect to mefloquine is transient

central nervous system toxicity; presenting as psychosis, depression, seizures or Acute Brain Syndrome in one in 10,000 - 20,000 of those taking the drug (Petersen et al., 2000). The Traveller's Medical and Vaccination Centre (1997) recommends that epileptics, those with psychiatric illnesses and those who have had a major head injury in the past should not use mefloquine. Studies by Phillips and Kass (1996) found that 14.3% of females and 5.5% of males suffered adverse affects from mefloquine that significantly affected their holiday activities.

McConnell (1998) advised that doxycycline was the best malarial prophylactic to use in high-risk areas such as South East Asia as no definite resistance had been reported. Heppner and Ballou (1998) found doxycycline to be 98% affective in preventing P. falciparum and 100% affective in P. vivax.

Phillips and Kass (1996) found those tourists seeking pre-travel health advice in Melbourne were more likely to be prescribed doxycycline than those in Adelaide were. Of those tourists who chose doxycycline as an anti-malarial 47% did so because they were uncertain about their itinerary and planned to use the tetracycline as an antibiotic if not required for malaria prophylaxis.

Phillips and Kass (1996) found that adverse affects were experienced by 26% of doxycycline users. Reactions included skin rashes (5.7%) and thrush in some (9.3%) women. Allen Yung (1994) advised women to carry an anti-candidiasis preparation with them on their travels. The Centers for Disease Control and Prevention (2001) suggested that increased photosensitivity may be avoided by wearing protective clothing, using sunscreen and taking the drug in the evening.

The safe use of mefloquine or doxycycline in pregnant or lactating women has not been established. The Fairfield Hospital Travel Health Clinic (1994) recommended that conception should be avoided for one week after ceasing doxycycline and women on mefloquine should use a reliable

form of contraception for the duration of the course and for at least two months after the last dose. While taking doxycycline, McConnell (1998) suggests that barrier contraceptive precautions are preferable to the oral contraceptives, as they may be less affective. McConnell (1998) generally discouraged pregnant women from travelling to malarious areas because of the risk of premature labour or miscarriage should the mother get malaria.

The most affective means of preventing malaria, in all tourists, is to minimise mosquito bites (refer to 2.3.4.4 Bites). Yung (1994) suggested it was possible to reduce the malarial risk ten fold through personal barrier protection against mosquito bites.

Yung and Ruff (1994) found that, in their experience, there is nothing specific about the early stages of malaria, although fever is usually a feature. The Centers for Disease Control and Prevention (2000a) suggest that symptoms can develop as early as six days after being bitten by an infected Anopheles mosquito and may resemble a 'flu-like' illness with fever, headaches and malaise. Yung (1994) recognised that malaria was a well-known mimic and can present as bronchitis, gastroenteritis, hepatitis, meningitis or encephalitis with an altered conscious state.

The Fairfield Hospital Travel Health Clinic (1994) advised tourists that if they develop a fever and have been travelling in a malarious area during the previous seven days they must seek medical attention within 48 hours. Ruff (1994) found that the risk of serious illness, or death from P. falciparum malaria, increased dramatically with the duration of the disease, particularly after four days.

2.3.3.2 Dengue Fever

Dengue fever occurs throughout South East Asia and was in epidemic proportions according to the Centers for Disease Control and Prevention (2000) in Bangladesh, Cambodia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Playford, Phillips, Looke and Whitby (1998) reported that three Australian tourists travelling to islands in the Gulf of Thailand developed dengue fever in 1998.

Dengue fever is a viral infection transmitted by the Aedes aegypti mosquito, which breeds in stagnant water containers found in residential areas. In a survey, conducted in North East Thailand, Flemming, Gibney, Mabunda and Mahmud (1997) found that bath and toilet water containers were the prime breeding area for the vector of dengue fever.

Non-immune tourists infected with the dengue virus developed a mild runny nose approximately one week after being bitten according to Bakker et al. (1996). He found that a few hours later they suddenly experienced malaise (98%), fever (96%), severe headache (64%), chills (58%), joint (44%) and muscle (53%) pain, which would persist for two to three days. Their recovery only lasted two days after which the symptoms returned in a less severe form and a rash appeared on their trunk and spread to their face and limbs. Until the rash appeared, dengue fever was difficult to distinguish from malaria. Although unpleasant, the Centers for Disease Control and Prevention (2000) found that the illness was usually self-limiting.

Mosquito avoidance is the only prevention as there is no vaccine available. Therefore, all tourists should avoid mosquito bites by using DEET containing repellents, and remaining in well-screened or air-conditioned areas. As the Aedes aegypti mosquitoes bite during daylight hours and are most active during early morning and late afternoon repellents should be used throughout the day according to the Traveller's Medical and Vaccination Centre (1998) (Refer to 2.3.4.4 Bites).

2.3.4 Trauma

The commonest preventable cause of death among tourists in South East Asia is not any form of infection but trauma according to Koppel (1997). Pugh and del Fante (1994) found that the carefree nature of holidays meant

that trauma was often the tourists' least concern, especially if influenced by alcohol. Hill (2000) and Prociv (1998) suggested that 5% of tourists would suffer an accident or injury; while trauma accounted for 26% of deaths among Australian tourists, infectious agents accounted for only 2%. Tourists need to be reminded that trauma represents the most significant hazard of all. Baqi and Keystone (1996) found that deaths in young people travelling in South East Asia were usually related to motor vehicle accidents. Yoong (2000) found that trauma due to violence was also a problem for tourists in South East Asia.

2.3.4.1 Motor Vehicle Accidents

Motor vehicle accidents were the commonest travel related cause of death in South East Asia according to Prociv (1998). The Traveller's Medical and Vaccination Centre (1998a) suggested that this might be due to the real challenge for the tourist that local transportation customs present as dangerous driving has been elevated to an art form. Lock, Miller and Wallace-Williams (1998) found that there was a serious and general disregard for, and lack of enforcement of, traffic regulations.

Tourists who are injured in a motor vehicle accident in South East Asia may face further trauma due to the inaccessibility and inadequacy of emergency services. "Non-fatal injuries occur in one out of five hundred trips abroad" (Buckley, 1995, p. 50). Good emergency care may be difficult to access, as Koppel (1997) suggested there was unlikely to be an ambulance, intensive care, neurosurgical or orthopaedic service available. In a number of countries, blood supplies are not screened, syringes and needles are reused and medical supplies are not available. If the tourist requires transfusion with a blood product there is a risk of transmission of blood-borne infections (refer to 2.3.5 Diseases Transmitted through Intimate Contact with People).

2.3.4.2 Personal Safety

The nature of South East Asia as a tourist destination positively encourages social interaction and having a good time. "Doing yourself an injury under the influence is just one of the many hazards in Kuta" according to Johnston (1998. p 8). For example, "Australians out drinking after midnight in Kuta are fair game, local people will try to take advantage of them and they do so because the drinkers are in no state to protect themselves" (Johnston, 1908, p. 10). Lock, Miller and Wallace-Williams (1998) found that the fact that locally produced alcoholic drinks are inexpensive, available and unfamiliar greatly enhanced the tourist's risk.

Trauma and injury due to assault, violence and robbery were recognised by the Foreign Affairs and Trade Australia (1998) as a problem for tourists in South East Asia. Picot, Goujon, Sylvestre and Armengaud (1994) found that two-thirds of tourists' fear that their passport, traveller's cheques or credit cards would be stolen and half believed that they are at risk of being assaulted. Koppel (1997) suggested that tourists were vulnerable targets for pickpockets or thieves, particularly those tourists with pre-existing health problems.

2.3.4.3 Climatic Hazards

Many tourists to South East Asia are inexperienced in coping with high temperatures and the relative humidity. Acclimatisation is important in order to avoid dehydration and fatigue; however, Dardick (1992) suggested that the most common heat related problem for the tourist in South East Asia was likely to be sunburn. Koppel (1997) found that tourists taking anti-malarials such as doxycycline were particularly photosensitive and needed to be more vigilant with wearing eye protection and applying sunscreen. Skin must be kept well protected with sunscreens and skin care products. Hill (2000) found that the humidity of the tropics was directly attributable to 8% of tourists succumbing to skin disorders.

2.3.4.4 Bites

Tourists to South East Asia are at risk from venomous and disease carrying animals. The Centers for Disease Control and Prevention (2000b) identified numerous diseases, which are transmitted through the bite of infected insects such as mosquitoes (malaria), lice (relapsing fever) and ticks (typhus). Tourists were well advised by Krause (1999) to avoid patting animals and to protect themselves from insect bites.

Diseases transmitted by insect bites were one of the leading causes of morbidity and mortality according to Ackerman (1997). Picot, Goujon, Sylvestre and Armengaud (1994) found that 89% of tourists believed that at some time an insect would bite them.

Mosquitoes transmit malaria, dengue fever, Japanese encephalitis, chikungunya and other diseases (refer to 2.3.2 Vaccine Preventable Diseases and 2.3.3 Fever sections). Hayes and Halstead (1996) found that a detailed knowledge of the feeding habits of different mosquitoes was not necessary for most tourists. They recommend that it was sufficient that tourists realise that the Anopheles mosquito (malaria) and Culex mosquito (Japanese encephalitis) feed between dusk and dawn while the Aedes mosquito (dengue fever) bites during daylight hours.

Buckley (1995) stressed that with the rise of multiple drug resistance in the Plasmodium falciparum malaria parasite the prevention of insect bites has become increasingly important. Bessell (1997) suggested that by simply observing a number of relatively easy precautions tourists can reduce the risk of being bitten: remaining in well screened areas, use of air conditioning, use of mosquito nets, wearing light coloured clothes that cover most of the body, avoiding the use of scents and using repellents.

Animal bites also present a very real hazard for tourists in South East Asia. Bites, licks or scratches can transmit rabies. Transmission of this viral infection occurs through mammals such as bats, cattle, cats, dogs and monkeys.

Torvaldsen and Watson (1998) suggested that all mammal bites should be suspect even though dogs are the main reservoir of the disease. The Centers for Disease Control and Prevention (2000f) discovered that in most countries in South East Asia, there was a risk of rabies infection, particularly in rural areas. Torvaldsen and Watson (1998) found that the greatest numbers of rabies exposures occurred in Thailand, followed by Vietnam, Indonesia and the Philippines. One quarter of tourists, believed that they were at risk of being bitten by rabid animals according to Picot, Goujon, Sylvestre and Armengaud (1994). Ruff (1995) recommended that all tourists who have been bitten by any animal should receive prompt medical attention and advice on post-exposure treatment as once symptoms develop rabies is always fatal, therefore, prevention is essential.

The bacterial infection, plague, was also found to be transmitted by infected animal bites and scratches, usually from rodents and rabbits (Ewing, 1997). Tourists were encouraged by the Fairfield Hospital Travel Health Clinic (1994b) to avoid patting, picking up, playing with or attempting to feed any animals. Although plague was very rare in tourists, "from 1990 to 1994 there were more than two thousand cases a year" (Ewing, 1997, p. A27) most of which were reported in the populations of Cambodia, Myanmar and Vietnam. Plague can be spread from person to person and Ewing (1997) warned that it recently developed multiple drug resistant forms. A vaccine for prevention and treatment is available, but the Centers for Disease Control and Prevention (2000f) rarely recommended it to tourists, as its efficacy had not been researched in humans.

2.3.5 Diseases Transmitted through Intimate Contact with People

The relationship between travel, intimate contact between people and sexually transmitted diseases is recorded in cultural history. Hawkes, Hart, Bletsoe, Shergold and Johnson (1995) recognised that tourists were sexual beings and that the excitement of a holiday romance may find them more

adventurous and disinhibited when it comes to casual sexual contact. The holiday atmosphere, alcohol and the offer of sex can be a deadly combination.

Although not obvious 'sex tourists', Australian tourists are likely to have casual sex while visiting South East Asia. Dr Jill Rowbottom (1993) reported that as many as 50,000 Australians had sex while holidaying in Thailand and the Philippines each year. She noted that the people who did travel to South East Asia for the purpose of sex were notoriously difficult to identify, at least in Australia where 'sex tours' are officially banned by legislation.

The Commonwealth Serum Laboratories (1995) reinforced the fact that sexually transmitted diseases have no geographic boundaries and tourists need to be aware that where they go is less important than what they do when they get there. Tourists may be exposed to a variety of sexually transmitted diseases, including the traditional venereal infections as well as hepatitis B, hepatitis C and HIV (human immunodeficiency virus).

All tourists are at risk of sexually transmitted diseases if they have heterosexual or homosexual intercourse (vaginal, anal or oral) with an infected person. They are at risk of the blood borne sexually transmitted diseases, hepatitis B, hepatitis C and HIV, if they are given infected blood, blood components or clotting factor concentrates in medical emergencies or if they use contaminated, unsterilised syringes or needles for injections or skin piercing. All forms of body piercing, tattooing, scarification, shaving, manicures and acupuncture should be avoided at all costs (Centers for Disease Control and Prevention, 2000c).

The Hospital for Tropical Diseases, London, surveyed returned British tourists and found that 18% of the participants had a new sexual partner, or partners, during their most recent trip abroad and of these 5.7% contracted a sexually transmitted disease (Hawkes, Malin, Araru & Mabey, 1992). When studying the sexual health of heterosexual males in Victoria, Jill Rowbottom (1993) found that 44% of cases of gonorrhoea were acquired abroad. In 1996,

Mardh and Arvidson found that gonorrhoea, chlamydia infections and genital warts were all significantly greater in women who had casual travel sex.

Both male and female tourists to South East Asia partake in high-risk sexual behaviours. High-risk sexual exposures may include those with members of the local community, commercial sex workers or other tourists. Mulhall (1993) found that females were less likely to use condoms in their casual sexual encounters while males had more sexual partners; especially men over the age of forty. Among a population of men who had sex in South East Asia, within three months of attending The Melbourne Sexual Health Centre, 60% had sexual contact with commercial sex workers (Rowbottom, 1993).

Grove (1996) suggested that the tolerance of prostitution and the sexual attraction of Asian women provided for a thriving commercial sex industry in South East Asia. Dr Jill Rowbottom (1993) reported that Australian male tourists were often unaware, until after the event, that their sexual partner was a commercial sex worker. This lack of awareness is frightening when more than 72% of low-income sex workers (50 baht or $2.50 is a typical fee for sex) in Chiang Mai, a northern rural province of Thailand, were infected with HIV according to Yung (1994). Rowbottom (1993) concluded that unprotected sexual contact with sex industry workers in South East Asia was an important source of sexually transmitted diseases, particularly HIV, for Australians.

2.3.5.1 Human Immunodeficiency Virus

The global pandemic of human immunodeficiency virus (HIV) infection would not have occurred without tourism. While injecting drug use is a major source of infection, heterosexual intercourse is by far the most common in South East Asia according to Dwyer, Mahathir and Nath (1996). HIV infection may present with an acute 'glandular fever- like' seroconversion illness 6 - 12 weeks after infection but the Centers for

disease Control and Prevention (2000c) warned that the period between infection and the development of disease may be 10 years or longer. Specific medical treatment clearly improves the health and the survival of HIV infected persons, but there is no vaccine available.

It was estimated by Dwyer, Mahathir and Nath (1996), that 2,500,000 people are newly infected with HIV in South East Asia each year, a figure that exceeds the combined incidence of the rest of the world. The epicenter of the South East Asian epidemic is Thailand, where Dore, Kaldor, Ungehusak and Mertens (1996) estimated that there were at least 2,115 per 100,000 infected individuals. They also believed that HIV was spreading rapidly across South East Asia with Cambodia and Myanmar reaching similar infection rates to Thailand. Dwyer, Mahathir and Nath (1996) found that Malaysia reported 300 new cases per month. Agencies (1998) reported that during one week in 1998, 300 people died of AIDS in Vietnam.

2.3.5.2 Hepatitis B

More than one third of the world's population has been infected with hepatitis B virus and 75% of these live in Asia according to Zuckerman (1997). Hepatitis B is primarily transmitted through sexual contacts, injecting drug use, tattooing, scarification, acupuncture and skin piercing. The Centers for Disease Control and Prevention (2000g) found that contact with infected people who have open skin lesions due to impetigo, scabies and scratched insect bites increased the risk of transmission in areas with high rates of hepatitis B.

Tourists infected with acute hepatitis B may experience polyarthritis, arthralgia and an urticarial rash. Gust and Ruff (1993) found the main determinant in the outcome of hepatitis B infection is the age at which it occurs; infants have a 90% chance of becoming carriers while otherwise healthy adults have a 5% chance. The researchers also discovered that females are just as susceptible to the virus as males but are more likely to clear the infection.

Hepatitis B is the only vaccine preventable, blood-borne, sexually acquired disease. The Centers for Disease Control and Prevention (1997a) recommended that the hepatitis B vaccine should be considered for short-term tourists who are likely to have casual sexual encounters and for those undertaking injury prone activities. Zuckerman and Steffen (2000) found that of the 75% of tourists who had a potential risk of acquiring hepatitis B only 19.2% were vaccinated; of the 11.2% whose risk status was considered high only 24.4% of these were vaccinated.

2.3.5.3 Hepatitis C

Developing countries, such as those in South East Asia, have the highest rates of hepatitis C infection in the world as reported by Bardhan and Fuchs (1996). Johnson and Locarnini (1998) found that sexual practises played a secondary role in transmitting hepatitis C. They have shown that most infections result from injecting drug use, tattooing, scarification, acupuncture and skin piercing. Kwan (1998) has found that the risk of hepatitis C being transmitted sexually is increased by co-infection with other sexually transmitted diseases, with anal intercourse and with sexual intercourse during menses.

2.3.5.4 Prevention

Avoidance of high-risk activities is clearly the best measure to prevent sexually transmitted diseases during travel. Otherwise, the Centers for Disease Control and Prevention (2000c) found that a properly used condom (or latex dam) with a water-based lubricant such as Wet Stuff™ or KY Jelly™ used from the start to finish of penetrative sex or the use of sterile injecting equipment when piercing the skin were the most affective protection from sexually transmitted diseases.

Tourists who use injecting or piercing equipment were encouraged by Yung (1994) to use their own needles and syringes that have come straight from sterile packages. If they cannot use new equipment they will need to clean the needles and syringes properly themselves.

All tourists are advised to include condoms when they are packing as reliable, high quality, condoms may not be readily available in South East Asia. If condoms need to be purchased abroad, Ruff (1996) recommended that known brands with a stated expiry date should be obtained from a reputable outlet.

The travel health literature published in Australia over the last 10 years illustrates that this carefree behaviour is not without serious, even life threatening, risks. The attention given to this risk taking behaviour is warranted according to Rowbottom (1993) when one considers the increasing number of Australians acquiring human immunodeficiency virus (HIV) after international travel. Although travel is not a risk factor for HIV per se, "the importance of travellers in the spread of HIV from one population to another is undeniable"(Mulhall, 1993, p. 404).

As is evident from the literature reviewed travel health is a complex area within which there is a vast range of information for the tourist, their travel health adviser and, in the event of illness, their health care providers to be knowledgable. To adequately protect themselves tourists travelling in some parts of South East Asia would need to receive a vast amount of education: probably more than most could take on board. The tourist therefore relies on travel health advisers to be up to date with all of the current travel health risk factors and the appropriate preventative behaviours.

2.4 The Affect of Travel Health Advice on Tourists' Behaviour

Behrens, Steffen and Looke (1994) found that despite receiving travel health advice more than half of the Australian tourists travelling overseas developed some illness or suffered an injury related to their international

travel. McIntosh, Reed and Powers (1997) went on to discover that tourists who had received travel health advice experienced more illnesses than those who had not did.

Few empirical researches exist on the impact of travel health advice on intended and actual travel health behaviour of tourists. Gehring, Widmer, Kleiber and Steffen found in their 1998 research that those studies that have been done largely focused on the effectiveness of AIDS prevention strategies. This is indicative of the correlation between the advent of the AIDS epidemic and the evolution of travel health.

As behavioural change is the primary aim of travel health advice the travel health adviser must make every effort to communicate affectively with the tourist (Dardick, 1992). Hudson (1991) suggests that travel health advice needs to be structured in such a way that it will either change the tourists' attitudes or introduce new beliefs. Ajzen (1992) has found that as a general rule, tourists receiving travel health advice are far from passive; they engage in an active process of analysing the reason behind the advice given. The adviser promotes the argument in favour of the advice they are giving and supplies reasoning, factual evidence and persuasive examples for adopting the preventative behaviour.

Tourists themselves undoubtedly contribute to the illness they may acquire through taking their chances and aiming to be treated if they get sick, rather than receiving immunisations, taking medications, or taking steps that are needed to ensure basic requirements like safe food and water and preventing sexually transmitted diseases (Hudson, 1991).

Even when tourists accept the advice to be immunised against diseases such as typhoid, Stubi (2000) found that their resolve to follow through with their intention was not sufficient to gain compliance with the immunisation regimen. He found that while 100% of the tourists managed to take the three tablets only 67% took them at the correct times and 68% swallowed them on

the correct days, at the correct distance from meals and kept the remaining tablets in the refrigerator.

In 1995, Axmann and Szabo found that it takes strenuous efforts to convince tourists travelling in malaria endemic areas to complete a full course of malarial chemoprophylaxis. Paget and Goldsmid (1995) also found the most common source of prophylactic failure was when tourists made their own risk assessment and ceased prophylaxis too soon after returning home. Phillips and Kass (1996) went on to suggest that those tourists forty years or younger, in particular, are less likely to complete the prescribed course of malarial chemoprophylaxis. This phenomena was widely researched in 2000 with variant findings; Hill (2000) found that 80% of tourists had complete compliance with anti-malarials and those tourists who were non-compliant usually discontinued the medication prematurely on their return home. Molle (2000) reported that an average of 52% of tourists were compliant with their anti-malarial regimen. 37% of those he surveyed used insufficient barrier protection, a problem that often coincided with irregular use of chemoprophylaxis. Even where 87% of tourists (Phillips & Kass, 1996) choose mefloquine because of its convenient weekly dosing regimen, Petersen (2000) found that 17% could not maintain compliance.

Tourists are also given detailed advice regarding the hazards associated with using contaminated water and eating contaminated foods. Even after this advice, research by Carter (1994) suggested that only three in four tourists planned to watch what they eat and drink. As Ruff (1998) reported a prospective study of Swiss tourists found that the tourists failed to adhere to dietary intentions from the first day of their holiday, when 7% made dietary mistakes; at the end of the first week 80% had erred. By the end of their fortnight away, all of the tourists had been unable to sustain compliance.

The relaxed attitudes and reduced inhibitions which are part of the holiday spirit expose the tourist to risks which they might otherwise avoid (Cossar et al., 1990). Dawood (1993) found that trauma from motorbike and

moped accidents pose the greatest risk to young tourists in tropical holiday destinations as renting a motorbike or moped is cheaper than renting a car. In such tropical climates, drink driving precautions and the wearing of protective clothing and helmets is often overlooked, if they were available at all.

McCool and Braithwaite (1992) advise that as travel health issues have the potential to raise concern, advice must be designed to evoke sufficient threat to motivate preventative behaviour without causing despair. When the fear level contained in a message is high, it may cause feelings of hopelessness within the tourist, decreasing the likelihood that they will engage in the preventative travel health behaviours. Despite tourists having a reasonable knowledge of the magnitude of the HIV pandemic in South East Asia researchers such as Mulhall (1993) and Yung (1994) found that tourists remained apathetic to their own risk and were prepared to take a gamble.

Contrary to this, Martin Fishbein (Ajzen, 1992) suggested that the greater the tourists' perception of personal vulnerability to travel health concerns the more likely they were to engage in preventative health behaviours. He found that if the tourist believes that they might benefit from the preventative behaviours they were more likely to adopt the travel health advice they were given. He conceded that to be successful travel health advice had to enable the tourist to gain volitional control of their behaviour so that they might overcome potential obstacles, such as alcohol, and resistance, such as group pressure.

Gagneux, Hatz, Blochinger and Tanner (1994) found, in their research into the affect of tourists' intentions to practise 'safe sex', that the most frequently given reason by tourists for not following through with their intent to use condoms was the influence of alcohol. The tourists who intended to practise 'safe sex' also found their resolve under threat from fellow tourists who reinforced sexual risk-taking behaviours. Tveit, Nilsen and Nyfors (1994) reported that 20% of male tourists having casual sex

were sometimes drunk and another 65% of those paying for sexual services were always drunk. In these groups, only 15% always used a condom with a casual sex partner while 34% used a condom when employing a sex worker. After their 1998 research Gehring, Widmer, Kleiber and Steffen concluded that, while travel health advice focusing on casual travel sex was appreciated, and increased the tourist's knowledge, they failed to result in significant behavioural change. Rowbottom (1993) advised that a tourist who had unprotected sex really has no other option than to abstain from sex or use condoms for the three months following the encounter. Clearly, this places the tourist in an awkward position when they return home.

The literature reviewed suggests that the health professionals caring for tourists need to familiarise themselves, not only with the vast array of travel health knowledge available, but also with the tourists' attitudes to the health risks they face and their intentions to practise the preventative advice given, if they wish to persuade the tourists' travel health behaviour. A methodology for further exploration of the affect of beliefs, attitudes and intentions on travel health behaviour will be discussed in the next chapter, The Research Design.

CHAPTER THREE

The Research Design

3.0 Introduction

This exploratory research used sequential in-depth interviews to explore the relevance of stated beliefs, attitudes and intentions in predicting travel health behaviours of Australians travelling to South East Asia.

This chapter is divided into five sections to aid clarity:

3.1 Significance of the research
3.2 Methodology underpinning the research
3.3 Ethical considerations and Trustworthiness
3.4 The participants
3.5 The procedure

The major tasks of the research were:

- Developing the research technique
- Enlisting consenting participants
- Pre- and post-travel in-depth interviews with the participants
- Collating the interview data
- Analysing the interview data

This research reviewed the travel health advice sought and recalled by a sample of Australian tourists prior to, during and following their holidays in South East Asia in relation to its:

- source
- extent
- relevance
- persuasiveness

The research strategy included pre- and post-travel in-depth interviews with eight Australian tourists to South East Asia. The theory of reasoned action, developed by Ajzen and Fishbein in 1980, provided a conceptual framework within which tourists' travel health beliefs, attitudes, intentions and behaviours while holidaying in South East Asia could be explained.

3.1 Significance of the Research

The study of travel health risk taking behaviours; namely the risk factors of trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases, is within the realm of public health research. Even a decade ago public health research was predominantly epidemiological however, it has since become more "methodologically eclectic" (Baum, 1998, p.103). Accordingly, research in public health now draws upon a range of social science disciplines, including those from social psychology. With this move away from an almost complete reliance on epidemiological approaches, there is now more qualitative research. While qualitative research samples are usually smaller, they yield more in-depth data than is possible using traditional approaches. As such the two approaches to public health research can be seen as complimentary, both with their strengths and weaknesses: epidemiological approaches providing information about 'what' or 'when'; and qualitative approaches explaining 'how' and 'why'. The widespread inclusion of qualitative methods in health research generally, and in public health in particular, gained acceptance at a National Health and Medical Research Committee level. Their subcommittee on health ethics recognised qualitative methodology as an essential component and legitimate form of public health research (Australian Health Ethics Committee, 1994).

Qualitative approaches are an important form of nursing inquiry which are particularly suited to research when one wants to interpret health practices and cultural phenomena from the participants' point of view. Minichiello, Aroni, Timewell and Alexander (1990) suggested that rather than collecting large volumes of information, the interview techniques used in this qualitative research permit an in-depth understanding of the thoughts,

attitudes, actions and reactions of a small group of participants. The research procedures and data analysis techniques employed in this qualitative research were subject to ongoing revision as theories were generated from the analysis of the narratives collected. The qualitative model used explored the relevance of the tourists' beliefs, attitudes, and intentions to their reported travel health behaviours while holidaying in South East Asia.

3.2 Methodology Underpinning the Research

The theory of reasoned action developed by social psychologists Ajzen and Fishbein (1980), and Ajzen's subsequent planned behaviour theory (1991), provided a conceptual framework within which tourists' travel health beliefs, attitudes, intentions and behaviours could be explained. There are various expectancy-value theories that could have been used to explore travel health behaviours. Expectancy-value theories, such as these, are based upon the assumption that people choose to perform behaviours associated with higher expected value or outcome. The basic tenet of Ajzen and Fishbeins' theory of reasoned action is that attitudes lead to intentions, and intentions in turn lead to behaviour. Accordingly, attitudes determine behaviour; knowledge and an expectancy-value factor (i.e. the belief that engaging in the behaviour will result in a desirable outcome) enhance this connection.

The theory of reasoned action has not previously been used to explain travel health behaviours specifically, yet, Ajzen (1992) found it to have clear implications when trying to influence tourists' behaviour in regard to their observance of safety rules and their impact on the environment. Tourism and recreational managers have also used the theory to explain vandalism (Knopf & Fazio, 1992) and tourists' responses to safety hazards in recreational settings (McCool & Braithwaite, 1992). The literature shows that the theory has also been used to predict health-related behaviours such as AIDS risk reduction (Winslow, Franzini & Hwang, 1992), contraceptive utilisation (Doll & Orth, 1993), breast self examination (Steffen, Sternberg, Teegarden & Sheperd, 1994), binge drinking (Norman, Bennett & Lewis,

1998) and road safety (Evans & Norman, 1998). Wallace, Lord and Bond (1996) found an overall attitude-behaviour consistency of 0.428 in their meta-analysis of empirical research on social behaviour, involving 58 research groups. After a review of the travel health literature it appeared that the psychological processes underlying the formation of the travel health intentions, attitudes and behaviours were similar to the processes underlying the formation of reasoned behaviours such as those health, tourism and risk taking behaviours listed above.

One of the means of approaching public health questions and researching health related behaviours employed by Fishbein and Manfredo (1992), and later researched by Wallace, Lord and Bond (1996), have been the study of attitudes. Ajzen and Fishbein (1980) believed that attitudes reflect the knowledge and beliefs the individual had concerning the value of behaving in a given way. According to their theory of reasoned action, the more knowledge, resources and opportunities the individual possessed and the fewer obstacles or impediments they anticipated, the greater control they had over their behaviour. Thus, to the extent that tourists believed that using bottled water would protect them from disease, and that protection from disease is desirable, their attitude toward using bottled water would be positive. Therefore, they used only bottled water for drinking while in regions where water borne diseases were known to exist, such as South East Asia.

However, Ajzen (1991) found that individuals frequently had a bevy of competing behavioural alternatives and corresponding intentions. Faced with two or more options, Ajzen and Fishbein, (1980) believed that the individual compared the inherent value of their attitudes towards all of the alternatives, choosing to perform the alternative with the strongest value. Thus, the tourists' intention to only use bottled water was a function of the strength, or otherwise, of their attitude towards the benefits of bottled water.

According to the theory of reasoned action, any given behaviour is the result of a specific intention to perform that behaviour. Referring again to

the example of bottled water for drinking, the tourists' use of only bottled water for drinking while holidaying in regions with contaminated water, is a function of their intention to only drink clean water wherever they may be. Bandura (1991) suggested that if one wanted to know whether an intending tourist would perform a given behaviour, the simplest thing that one could do was to ask them whether they intend to perform that behaviour.

3.3 Ethical Considerations and Trustworthiness

Permission was granted by the Victorian University of Technology Human Research Ethics Committee to conduct this research (see Appendix G).

The participants entered the research of their own free will and informed consent was sought from the research participants. This was as per recommendations by the National Health and Medicine Research Committee (1999). At the beginning of the pre-travel interviews the participants were allowed the opportunity to review the invitation to partake in the research and were invited to ask any questions they might have, which were then clarified. Despite encouragement to sign a consent form (Appendix C) one participant, Stella, agreed to participate and continue to have the interviews recorded but, argued that she made an informed decision not to sign the consent form, preferring to participate without this record of her identity. The research supervisor made telephone contact with The Office for Research at Victoria University who suggested that the researcher could use this interview data. The advice given was that, as all conceivable attempts were made to protect the identity of participants in the research, the data could be used.

The use of pseudonyms to identify tape recordings, transcripts, notes and data entry prevented disclosure of participants' identities, including Stella's. When conducting in-depth face to face interviews "the building of rapport is essential and written consent has been shown to interfere with this process"

(AHEC, 1994, p.5), therefore, "written consent is not always required" (AHEC, 1994, p.5).

Researchers investigating such sensitive personal issues as health practises are obliged to protect the anonymity of participants according to the National Health and Medicine Research Committee (1999). The use of pseudonyms in the presentation of data in the Findings and Discussion sections, which follow, protects the identity of all of the participants.

The Australian Health Ethics Committee (1994) suggested that the principle means of protecting the participants' right to anonymity was to ensure confidentiality. The invitation to partake in this research (Appendix B) informed the participants that their responses would be confidential and that they could withdraw from the research at any time. In accordance with the Australian Health Ethics Committee (1994) guidelines the tape recordings, transcripts, notes and computer disks are kept in a locked cupboard and will be held intact for five years after the release of this thesis. The data collected will not be used for any purpose other than that for which it was given and it will not be divulged to persons or organisations at any time in accordance with the National Health and Medicine Research Committee (1999).

In order to give a valid representation of the participants' travel health experiences, the researcher looked carefully for anything that might contradict the theoretical grounding, as suggested by Wittmann (1995), and cross-checked the emerging themes and relationships, as suggested by Patton (1990). Lee and Fielding (1991) believe that the Non-numerical Unstructured Data Indexing, Searching and Theorising (NUD*IST4) data management system used in this research, supported the genuine testing of emerging patterns, both 'in-case' and across data sets. The theories and relationships were examined through simultaneous analysis in constant reference to the data.

The in-depth interview data collected are a form of self-report which Ajzen and Fishbein (1980) advise must be considered accurate. Silverman

(1985, p.176) argues that they reflect the participants' "cultural realities which are neither biased nor accurate but real."

To remove the potential bias that might arise from a single researcher, commentary from the research supervisors was sought to aid in clarifying themes, refining questions and regaining insight into the data with which the researcher was so sensitive. The researcher also set aside periods of time in the form of a vacation from the field in order to regain perspective as Wittmann (1995) recommended.

3.4 The Participants

The intending tourists asked to participate in the interviews for this research were selected from a cluster of Australian tourists arranging holiday travel to South East Asia an inner city travel agency, during the period from 1995 to 1997 (see Appendix A).

'South East Asia' includes the following eleven countries:

Bangladesh	Lao People's Democratic Republic	
Brunei Darussalam	Malaysia	Singapore
Cambodia	Myanmar	Thailand
Indonesia	Philippines	Vietnam.

This classification of 'South East Asia' was taken from Mary Wilson's (1991) travel health reference and incorporates the countries included in the Australian Bureau of Statistics (1994) classification.

3.4.1 Methodology Supporting Sampling Techniques

Ideally, in qualitative research such as this, the sample of Australian tourists holidaying in South East Asia would be selected on theoretical grounds; a process of data collection was generated, and was used to generate theory (Minichiello, Aroni, Timewell & Alexander, 1995). The theoretical sampling method used in this research had the explicit purpose of

acquiring information about the tourists' travel health knowledge, attitudes, intentions and behaviours.

Minichiello, Aroni, Timewell and Alexander (1995) recommend that the participants should be purposefully selected to take into consideration the relevant categories (type 1 Categories) identified in the literature review.

The relevant categories identified in the literature review were whether the tourist was travelling alone or with travelling companions, their age and gender. Tourists who were permanent residents of Australia and were holidaying in South East Asia for between one week and one month were sought. In addition, the researcher planned to add categories to the theoretical sampling framework as the importance of incidences and situations (what Minichiello, Aroni, Timewell and Alexander (1995) refer to as type 2 Categories) were discovered during the ongoing analysis of data. Concurrent collection, coding and analysis of data collected was undertaken to enable the researcher to explore the relevance of beliefs, attitudes and intentions in predicting travel health behaviour.

Previous research by Mulhall et al. (1993) and Rowbottom (1991) established that travel health behaviour was partly dependent upon whether the tourist was travelling alone or with travel companions. Petrucelli (1995) found that the dynamics of being part of a group may either support or inhibit the individual tourist's health practises as friends, partners and family members may pressure the tourist to conform to the behaviours of other group members.

Women play the key role in organising travel arrangements according to the South Australian Tourism Commission (1996); they prefer the companionship and security of travelling with people they know. Despite women taking responsibility of travel arrangements Cossar et al. (1990), stated in a survey of 11,000 returned travellers, that there was no difference in the reports of illness amongst men and women with thirty one and thirty two per cent being unwell respectively.

Within the category of 'age', there were significant cohort differences in travel health risk taking behaviours. Carter (1994) found that 18 to 24 year olds were more likely to seek travel health advice, while Ardvidson, Mardh, Hellberg and Nilson (1994) found that females were less likely to practise 'safe sex' as they aged. Cossar et al. (1990) discovered that those aged between 18-30 years old were more likely to suffer a travel related illness. Krosnick and Petty (1995) have found these young adults to have unstable attitudes and to be prone to inconsistency between their intentions and actual behaviours. Accordingly, half of those in this research into Australian tourists' travel health in South East Asia were aged 18-30 years old while the others were aged between 31-45 years old (see Table 1).

In accordance with the theoretical sampling framework the participants sought were permanent residents of Australia, who were travelling in South East Asia for one week to one month. The sample, as demonstrated in Table 1 below, also took into consideration the relevant categories (type 1 Categories) identified in the literature review; the gender and age of the tourist and whether they were travelling alone, with a partner, with their family or with friends.

Table 1

Theoretical Sample

Permanent Resident of Australia			
Staying in South East Asia between one week and one month			
Male		Female	
18-30 years	31-45 years	18-30 years	31-45 years
Alone	Alone	Alone	Alone
Partner	Partner	Partner	Partner
Family	Family	Family	Family
Friends	Friends	Friends	Friends

(Adapted from Minichiello, Aroni, Timewell & Alexander, 1995).

3.4.2 Accessing Participants

The travel agents at the participating travel agency fulfilled the role of 'key informants' in that they made the initial approach to the tourists travelling to South East Asia by giving them a letter of invitation to participate in the research (see Appendix B). Those eligible to join the sample group were permanent residents in Australia, were aged between eighteen and forty five years and intended to holiday in South East Asia for between one week and one month (see Appendix A).

The invitation to intending travellers explained that the research was concerned with their attitudes towards travel health, their beliefs and behaviours while travelling and that by participating they could contribute to efforts to develop better educational and health care programs for Australians travelling to South East Asia. Hawe, Degeling and Hall (1990) suggest that the purpose of a letter of invitation be to interest possible participants in the research and persuade them to participate. The letter of invitation also informed the intending travellers how much of their time was required and the importance of their participation. The invitation informed the participants that their responses would be anonymous and confidential and that they could withdraw from the research at any time (Hawe, Degeling & Hall, 1990).

3.4.2.1 Difficulties Accessing Participants

Despite attempts to locate the theoretical sample represented in Table 1 above there were some difficulties in accessing the eligible participants. Firstly, the travel agents invited tourists to participate in the research who did not fit the sample criteria outlined to them (refer to Appendix A). Of the eighteen participants who accepted the invitation to be interviewed, one couple was not travelling in the South East Asian countries specified and four combined business with their holiday travels. Secondly, despite their initial cooperation, and assurances being given, the travel agents acted as

'gatekeepers' as their willingness to approach tourists regarding their participation fluctuated and then diminished entirely.

Gatekeepers are "those individuals in an organisation that have the power to withhold access to people or situations for the purpose of research" (Burgess, 1984, p.39). Several attempts to seek clarification of their concerns in approaching tourists to South East Asia were made by the researcher, yet these proved to be unsuccessful. Heponstall and Mortimer (1991) suggested that the political concerns and sensitive nature of travel health behaviours may have had some bearing on access to tourists and the willingness of the travel agents to invite participation in this research. The co-operation of other travel agencies was sought but they declined stressing similar concerns. A lack of cooperation on the part of the travel agents meant that no other tourists were invited to participate in the research. Accordingly, there were only twelve intending tourists identified.

3.4.3 The Research Sample

The researcher personally approached the twelve tourists who met the sample requirements and accepted the invitation to participate in the research. Eight female tourists went on to participate in this research, the four men who had initially accepted the invitation to participate found that they: did not "have the time;" or did not "know anything about travel health" and/or did not "see the point". Accordingly, there was a shortfall in the theoretical sampling attempted, as the type 1 Category of gender, identified in the literature review was not addressed.

The other relevant type 1 Categories identified in the literature review regarding whether the tourist was travelling alone or with travelling companions, and their age, was addressed in the sample of eight women as represented in Tables 2 below.

Table 2

Modified Sample

Permanent Resident of Australia	
Staying in South East Asia between one week and one month	
Female	
18 – 30 years	31 – 45 years
Alone	Alone
Partner	Partner
Family	Family
Friends	Friends

(Adapted from Minichiello, Aroni, Timewell & Alexander, 1995).

A snapshot of the eight participants, and their relevant type 1 Categories, is represented in Table 3 below. The pseudonyms used in Table 3 were selected by the participants and were also used to identify the data collected (refer to 3.4.1).

Table 3

Research Sample

Permanent Resident of Australia		
Staying in South East Asia between one week and one month		
Female		
'Jennifer'	31 – 45 years	Friends
'Phoebe'	18 – 30 years	Alone
'Rachel'	18 – 30 years	Friends
'Sarah'	31 – 45 years	Alone
'Stacey'	18 – 30 years	Friends
'Stella'	18 – 30 years	Family
'Veronique'	31 – 45 years	Partner
'Wendy'	31 – 45 years	Friends

In qualitative studies the sample size is often small as the in-depth face to face interviewing process is time intensive. However, in a colloquial sense this sample of convenience "illuminate [s] important aspects of people's ideas and experiences which have general applicability to understanding the social phenomena under investigation" (Minichiello, Aroni, Timewell & Alexander, 1995, p.168). The use of this sample of convenience could present a problem if the research findings were to be generalised to the greater population. Rather, as Daly, McDonald and Willis (1992) suggested the research findings were not intended to stand alone but are to form a part in developing an understanding of tourist's travel health behaviours.

3.5 Procedure

In-depth, face to face interviews were conducted, and as Taylor and Bogdan (1984) suggested, they allowed the researcher to gain an understanding of the participants' perspective on their behaviour, as expressed in their own words. Further, the face to face interviewing methods described in Ajzen and Fishbeins' theory (1980) were drawn on to explore the relationship between attitudes, intentions and health behaviours (Wallace, Lord & Bond, 1996). Minichiello, Aroni, Timewell and Alexander (1995) believed that the face to face interview was a complex qualitative research method that can be subtle enough to give the researcher access to the meanings and interpretations that participants give to their knowledge, attitudes, intentions and behaviours.

In order to explore the interaction between the various determinants of travel health behaviour the research took a longitudinal form with each participant invited to attend pre- and post-travel interviews. Eight pre-travel interviews were conducted between 1995 and 1997. However, after holidaying in South East Asia, all but one participant, 'Jennifer' (see reference to the use of pseudonyms above), attended post-travel interviews during which they reflected upon their travel health behaviours. Shott

(1990) found that due to the personal nature of health research such as this there is, traditionally, a high attrition rate.

3.5.1 Overview of Pre and Post-Travel Interviews

While the interview process was not formally structured, it was guided to a certain degree as an interview guide provided some structure covering the six areas of concern that were identified in the review of the literature: trauma, diarrhoea, fever, vaccinations, sexually transmitted diseases and travel health advice. The interview guide addressed the themes that were to be covered, rather than dictating any fixed ordering of questions or wording (Minichiello, Aroni, Timewell & Alexander, 1995).

At the beginning of the pre-travel interview, participants were given the opportunity to review the invitation to partake in the research (Appendix B) and were invited to ask any questions they might have. The pre and post-travel interviews were tape-recorded, with the participants' consent. This was believed to be a means of obtaining a full and accurate record of their travel health experiences. Tape-recording the interview allowed a greater rapport to develop as the interview took on a natural conversational style and the researcher was free to be an attentive and reflective listener (Robson, 1993). The interviews represented a form of self-report, which Ajzen and Fishbein (1980) advise must be considered by the researcher to be accurate. The researcher emphasised the importance of participants responding carefully and honestly. Participants were then encouraged to sign an informed consent (Appendix C) and select a pseudonym.

The pseudonyms were selected by participants and were used to identify the data collected in the form of tape recordings, transcripts, notes and computer disks. Minichiello, Aroni, Timewell and Alexander (1995) believed that the anonymity provided through the use of pseudonyms encouraged participants to take part in the interviews and to report their behaviour honestly:

'Phoebe' had a two-week stopover, on her own, in Thailand on the way back from Europe;
'Stella' joined family members in Vietnam for one week;
'Stacey' holidayed in Bali, for two weeks, with 'Jennifer';
'Rachel' spent one week travelling in Thailand with a group of friends;
'Sarah' travelled alone for three weeks in Malaysia;
'Veronique' spent three weeks travelling in Bangladesh, with her companion, after trekking in Nepal;
'Wendy' spent one week travelling in Vietnam with friends; and,
'Jennifer', joined 'Stacey' for a two-week holiday in Bali.

3.5.2 Pre-Travel Interviews

At the commencement of the pre-travel face to face interviews, participants were asked questions related to their travel plans and were engaged in general conversation concerning the broad themes of travel in South East Asia to ascertain their level of knowledge of the area. The researcher then guided the intending tourists to the more specific concerns of travel health advice, trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases through the use of more specific questions that narrowed the area of focus. The interviews were informal, relaxed and non-threatening conversations, which were guided by the researcher using the interview guide. Reflective listening techniques were used throughout the interview to probe for further information and depth of response. Such techniques encouraged the researcher to make non-judgmental, but encouraging, statements such as; "You said that....", and "Could you tell me more about...." without leading the participant (Robson, 1993).

These pre-travel interviews took approximately one hour of the participants' time and were negotiated for a time and location most suitable to each participant. This flexibility meant that interview settings varied from participants' homes to their workplaces or restaurants. As two of the participants, Stacey and Jennifer were travelling together, they chose to be interviewed together. Minichiello, Aroni, Timewell and Alexander (1990)

established that theses in-depth interviewing techniques were just as affective when interviewing groups of participants such as friends, couples or families.

At the end of the pre-travel interview, the participants' demographic data were collected (see Appendix D). The collection of this data enabled the researcher to reflect upon whether all of the relevant areas of concern had been covered and the data collected were later compared with the interview transcripts (Silverman, 1993).

The participants were each given a set of Travel Health Brochures (Appendix E) and a list of Travel Health Resource Centres (Appendix F) in accordance with Australian Health Ethics Committee (1994) guidelines.

3.5.2.1 Pre-Travel Data Analysis

The participants' pre-travel interview were transcribed as soon as possible after the interviews while the information and the interview processes were still fresh in the mind of the researcher. The researcher immersed herself in this data by repeatedly listening to the interview recordings and interview transcripts. Such rigorous immersion in the data was necessary to gain a detailed knowledge of the travel health advice participants received, their attitudes and intentions regarding travel health behaviour (Borman & LeCompte, 1985; Hawe, Degaling & Hall, 1990).

The travel health advice received by the participants, their attitudes and intentions were then organised into simple working order. Units of the interview text were coded so that the emerging themes and constructs might be compiled into a manageable number of analytical units (Robson, 1993). The categories chosen reflected the specific concerns of the travel health advice received, trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases. For example, everything the participant stated about the travel health advice that they received from travel agents was placed in one category, everything about water sterilisation into another and so on.

Such pattern coding provided an interim summary of the pre-travel data. These findings were later presented to the participants at the end of their post-travel interviews to aid the further recollection of their travel health behaviours and to encourage them to scrutinise the transcripts. None of the participants requested that the transcripts be altered.

3.5.3 Post-Travel Interviews

The post-travel data were collected using semi-structured, in-depth, face to face interviews and were negotiated with the participants to take place approximately one month after they returned from holidaying in South East Asia. Wallace, Lord and Bond (1996) argue that the participants' responses in the post-travel interviews would not have been affected by their attending pre-travel interviews as the time lapse, at least six weeks, meant that they would be unlikely to recall the attitudes and intentions they reported in the pre-travel interview.

Initially, the participants were encouraged to inform the researcher about their holiday experience and show their holiday photos. Attempts were made to assist the participants to feel at ease and to diminish any connection between the attitude/intent assessment at the pre-travel interview and the self-report of behaviour (Wallace, Lord & Bond, 1996). Following this initial 'warming up' period participants were encouraged to describe their travel health behaviours in the period since the pre-travel interview, including the time they were holidaying, as well as any illness or accident they may have suffered. Finally, the participants were reminded of their travel health intentions, as described during the pre-travel interviews, and were asked to reflect upon whether they followed through with their intentions.

3.5.3.1 Post-Travel Data Analysis

After the post-travel interviews 'in-case' and across data analyses were conducted. The 'in-case' data analysis was designed to explore the strength

of the relationships between each participant's travel health education, attitudes, intentions and the reported behaviours of Australians holidaying in South East Asia. The pre- and post-travel interviews elicited a comprehensive set of in-depth, qualitative data consisting of the demographic profiles completed by the eight participants and the verbatim transcripts from the pre- and post-travel interviews.

Ultimately, the tape recordings of the post-travel interviews were transcribed and then organised using coded categories similar to those used for the pre-travel interviews. In order to successfully analyse the large volume of data collected from the interviews, the information was categorised using a qualitative research computer software package. The Non-numerical Unstructured Data Indexing, Searching and Theorising (NUD*IST4) program enabled the researcher to explore the relationships between the travel health advice received, the attitudes, intentions and reported behaviours in each of the areas of concern namely; trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases. For example, Stella's intention to drink only bottled water or soft drink was compared with the fact that she had not considered the source, or purity, of the water she was drinking at her relative's home. Lee and Fielding (1991) suggested that this analysis 'matrixed' sweeping patterns and themes in the information received and permitted cross-case analysis.

This chapter explored the relevance of the Theory of Reasoned Action, developed by Ajzen and Fishbein in 1980 in exploring travel health behaviours. After review of the relevant literature this methodology was found to be relevant to the exploration of travel health behaviours in Australians travelling to South East Asia. The findings from the pre- and post-travel in-depth interviews are found in Chapter Four and explain the relationship between travel health advice, stated beliefs, attitudes and intentions and the behaviour of tourists holidaying in South East Asia.

CHAPTER FOUR

Findings

4.0 Introduction

As stated in the introduction the overall purpose of this research was to explore the relevance of travel health advice, stated beliefs, attitudes and intentions in predicting travel health behaviours of Australians travelling in South East Asia. This chapter provides the findings from the pre- and post-travel in-depth interviews of the eight participants who holidayed in South East Asia.

This chapter is divided into three sections, with the relevant subsections, to aid clarity:

4.1 Pre-travel holiday preparations

4.2 Travel health advice

4.2.1 Travel agents as travel health advisers

4.2.2 Medical practitioners as travel health advisers

4.3 Post-travel reports of tourists' behaviours

4.1 Pre-Travel Holiday Preparations

This research showed that tourists planning a holiday in South East Asia usually plan and book their airline tickets and accommodation weeks or months in advance. The participants in this research took time out from packing, and making last minute changes to their travel arrangements, to discuss their holiday plans, their health concerns and the advice they had been given.

The participants reported that they chose to holiday in South East Asia because of its novelty, tropical climate and the contrast of new environments. As a first time traveller to Bali, Indonesia, Jennifer:

> *... did not know what I am going to do yet, I have got no expectations ... anything could happen. Nothing worries me, just the culture shock probably. Just going there and seeing things that I have never seen before and going (stunned look on her face). I am glad I am going with Stacey.*

Jennifer's travelling companion, Stacey, was also keen to experience the Asian culture and anticipated that they were *"going to shop and drink and spend lots of money and have lots of fun."* Rachel was also looking for a holiday "*adventure*" in Malaysia while Veronique chose to backpack through Bangladesh, as she was *"not the sort to lounge on a beach or poolside with a book. It is nice to do that for a day, but it is not my choice for a holiday."*

Being able to lounge by the beach with a book was Phoebe and Sarah's ideal when choosing to stay in Thai and Malaysian beach resorts. Phoebe was looking for somewhere to relax after backpacking in Europe; "*I will need a rest. A bit of rest and relaxation before I get home. All I can do on Ko Phi Phi is swim, sunbake and relax.*" Sarah was also:

> *... going to lie on the beach, and I am going to lie by the pool and I am going to scuba and I am not going to do anything. I am going to read some books because I have not read anything for a year, a year and a half, and I am going to sleep and I am going to sit under an umbrella.*

Stella indicated that she would just be *"pleased to get on a plane and start relaxing*" on her way to Vietnam.

Wendy, on the other hand, had spent a lot of time in South East Asia. "*I really want to go*" to Vietnam but "*I imagine that it is going to be a lot like India. I spent a lot of time travelling in India. I think it is going to be travel with the most hard work.*" Rachel was also a frequent tourist in "*the Asian countries; at least 10 or 15 trips.*" Despite her experience she could not

really foresee any concerns that might crop up during her travels; "*No, not in Malaysia. The only thing that could happen to us is a flight being cancelled. That would be nice, it might extend our stay.*"

As a novice Jennifer was "*a bit scared*" about travelling in Indonesia. Jennifer had decided that "*I am not going to do nothing. It is going to be my health spa week; I am going to come back every bit healthy.*" Stacey, Jennifer's travelling companion, believed that Jennifer's apprehension would only last "*for a couple of days and then she will have found her confidence and that will be it!*" Rachel's *attitude* regarding travel health threats was that "*since we are staying in five star hotels and not, sort of, going out into the Cameron Highlands we are pretty much safe.*" Despite the variant *attitudes* towards the travel health risks they may encounter all of the tourists were prepared to relax and enter into the holiday spirit.

4.2 Travel Health Advice

Preparation for travel is a process that involves both the tourist and those they have consulted for advice. While the travel agents and the medical practitioners approached by the tourists had a professional responsibility to provide travel health advice to their clients, the bottom line was that it was the participant's individual responsibility, both to seek appropriate travel health advice and maintain their own well being.

4.2.1 Travel Agents as Travel Health Advisers

The travel agents at the participating travel agency were required by the Australian Federation of Travel Agents to provide basic travel health advice to all of the participants in this research and risk liability if the advice was not given, or due care was not taken (Simpson, 1993). All of the participants were required by the travel agents to sign an agreement that they had received travel health advice when finalising their travel arrangements and

paying for their tickets. Despite this, the data showed that the participants appeared to have little or no recollection of the advice provided.

4.2.1.1 The Knowledge of Travel Health gained from Travel Agents

Phoebe was the only participant to recall the travel agent giving her verbal advice, "*about using mosquito repellent and wearing sensible clothes*". Veronique, however, recalled being encouraged to seek medical advice:

> *... they handed me a leaflet for the Travel Medicine Clinic in the city and virtually recommended that I visit there. I didn't let them know that I had my own plans; where I was going to get my travel health advice. They did encourage some contact!*

4.2.1.2 The Tourists' Beliefs concerning Accidents and Trauma

Wendy had decided that she was prepared to deal with minor injuries as "*the doctor gave me some syringes, he gave me some gauze, he gave me some swabs, all sorts of things. He gave me some needles, he gave me some sachets of antiseptic to cover cuts or whatever and I will be taking Panadol and Berrocca.*" Phoebe, Stella and Veronique also packed first aid kits in case of minor injuries or accidents.

Sarah had considered the affect of injury from the tropical sun when forming her point of view that:

> *... I will be doing the factor 15 because I will burn within the first couple of days and I will just be out for the next two weeks and that would just be a waste of money, so I will be doing all of that. The water is clean and as far as I am aware the diving areas are clear and the only problem I will have will be if I am diving and I burst an eardrum. And, that is just normal.*

4.2.1.2.1 The Tourists' Attitudes on Trauma

When asked if the participants had considered the possibility of suffering accidents or injuries through trauma while on holiday, Stacey's single word statement "*Insurance*" and Rachel's response of "*I have got insurance to cover that*" represented most of the groups' attitude towards their responsibilities concerning accidents or injury. Stacey elaborated further in adding that she "would not go anywhere without" travel insurance and "*intend [ea] to be on the next plane out of Bali if I suffer any serious accident or injury.*"

From the participants' accounts, it appeared that the travel agents persuaded all of the tourists, who were not covered by their occupational insurance, to take out travel insurance, against accidents, trauma and illness, when finalising their travel arrangements. Rachel and Stella were the only ones who knew what it actually covered. Rachel recalled that "*the travel insurance covers health, accidents, loss of luggage and that sort of stuff.*"

As a first time international tourist Jennifer did "*not know what I am going to do yet, I have got no expectations... anything could happen, I could make her [Stacey] do anything silly*". Jennifer's attitude was that if she "*did do anything silly*" or "*if I so much as graze myself I am coming home. If I have to go to hospital they will have to drag me there kicking and screaming.*"

Sarah's view was that she faced the greatest risk of suffering trauma in a motor vehicle accident. She recognised the need for caution when she:

> *... had the option to drive from Kuala Lumpur up and then get the ferry across to Langkawi but there is no way I am driving in Malaysia. That is why I got the internal flights. I have no intention of hiring a car or getting on the back of a motorbike.*

4.2.1.2.2 Safety Intentions

Sarah intended to practise some caution when in Kuala Lumpur, and on the streets alone, particularly at night as " *a single girl there by myself, the night market is as far as I will go, I think. My safety says I don't think I will go anywhere else*". Stella was also concerned about being on the streets in Vietnam alone, without her passport for identification. Despite her reservations she intended to hand in her passport to the local police station, as required by the military, because she was staying in a private home. She tried to console herself when confiding that "*at least I won't lose it or have it stolen; it will be safe. I hope they let me out of Vietnam!*"

4.2.1.3 Travelling 'Safe'

'Travel Safe' campaign brochures, concerning sexual health practises, should have been included in each tourist's travel papers at the time of ticketing as required by the Australian Federation of Travel Agents (Ruff, 1993, Simpson, 1993). None of the tourists participating in this research recalled that they had received this travel health advice or reported seeing any 'Safe Sex' messages in the airports or in inflight information.

4.2.1.3.1 'Safe Sex' Beliefs

When considering casual holiday relationships Wendy asserted that "*I am aware of AIDS and all that goes with that.*" While discussing the likelihood of contracting sexually transmitted diseases Jennifer queried her understanding of how the human immunodeficiency virus (HIV) is transmitted. She and Stacey were concerned that they might contract the virus through insect bites. They were both reassured by the researcher that, according to the Centres for Disease Control and Prevention (2000b), HIV, hepatitis B and hepatitis C are not transmitted through mosquito or other arthropod vectors.

When asked whether she had considered sexual health concerns Stacey immediately responded that her main concern was "*hep B*". Most of the tourists had been vaccinated against hepatitis B in the past while Stacey "*had the first and I am having the second on Friday night and I will have the third in six months*" after her return from South East Asia.

4.2.1.3.2 Attitudes to 'Safe Sex'

Jennifer seemed to have a relaxed attitude towards the risks associated with sexually transmitted blood borne viruses. She appeared to be unaware of the availability or appropriateness of the hepatitis B vaccine and in her point of view "*if I am not taking drugs or having any sex*" she would not be in a position where she might require hepatitis B coverage. Hepatitis B can be transmitted through sexual contacts, injecting drug use, tattooing, acupuncture and skin piercing.

Rachel had thought about the idea of sexual encounters while on holiday in Malaysia and did not appear to have fully formed her point of view on the issue. She initially stated that "*I won't be doing it over there!*" then qualified it by adding "*I have had my hep B shot so I am safe.*" Yet she reported that she was taking barrier protection "*just in case*".

4.2.1.3.3 Intentions to Practise 'Safe Sex'

While the group of tourists participating in this research were not obviously 'sex tourists', Veronique and Wendy were the only ones who reported a definite intention not to have sex while on their holiday. Both, Veronique and Wendy scoffed at the suggestion that either of them could be carried away in the excitement of a holiday romance. Veronique was so certain of her resolve, that she was not going to have any intimate encounters, that she did not intend taking any form of barrier protection with her.

The other tourists, including Wendy, packed condoms to take with them on holiday in case of casual sexual encounters. Wendy packed condoms in her luggage despite her feeling that "*I won't need to, I am too tired and I don't care.*" Jennifer intended to "*take them, but I won't use them.*"

Sarah was a little more optimistic in "*not planning any encounters; but you never know. I will be taking precautions.*" Stella was also prepared as she "*always take [s] condoms with me, just in case. I don't really think it will happen but you never know.*"

When discussing condoms, Stacey commented that, *"I don't think I would like to buy them over there, just quietly*". Jennifer added: *"It would be like buying them in a Reject Shop!*"

4.2.2 Medical Practitioners as Travel Health Advisers

All of the eight tourists travelling to South East Asia reported that they sought travel health and vaccination advice from medical practitioners before their departure. Jennifer, Rachel, Stacey and Wendy approached their local general practitioners for advice. Sarah consulted a medical practitioner with whom she worked:

> *... They looked up their bible. They asked me where I was travelling and because I am going to built up areas, mainly resorts, and not going inland they advised me that I would not need anything.*

Phoebe and Veronique consulted travel health physicians in their private travel health practices.

4.2.2.1 Conceptualising the Travel Risks in South East Asia

Because of her extensive experience as a tourist in South East Asia, Wendy was so concerned about the potential health risks associated with

travelling in Vietnam that she put a lot of effort into her holiday preparations. She "*had a good think about health*" and went on to explain that that she was so concerned that, "*I went to one doctor, I went to a chemist and I went to another doctor*" before deciding on what vaccination schedule and advice that she would adopt. Stella on the other hand left her arrangements to the last minute.

Stella only managed "*a quick 10 minute chat*" with her travel health adviser two days before departure. It was Stella's opinion that she only needed a prescription written for doxycycline, an anti-malarial, but she found that she required tetanus immunisation as well. Stacey, on the other hand, had sought travel health advice one month prior to travelling which gave her enough time to receive hepatitis B immunisation.

The reported amount, quality and effectiveness of *travel health advice* given to the tourists varied considerably. Wendy considered a variety of advice from her general practitioner, then sought a second, and then a third opinion, before forming her point of view on travel health risks. Meanwhile, Jennifer was content for her general practitioner to apply a simple country by country formulae when advising her:

> *...He had just sent his son over. I said, "What did your son have?" He said "tetanus". If it is good enough for his son, it is good enough for me!*

Apparently, none of the tourists who consulted general practitioners for travel health advice were given written information to take with them as references during their travels. When asked to expand upon this Rachel surmised that it was "*because I am more experienced*" that she was given "*nothing whatsoever*" in the way of written travel health information.

In contrast, Phoebe and Veronique were given written travel health advice when they consulted travel health specialists in travel medicine clinics. Phoebe was given a set of "*five brochures about diarrhoea, malaria*

and two on vaccines; there was one other. I can't remember what it was about. I have got them in my backpack to take with me." Veronique was given "*pamphlets all about the different medical conditions; how to manage side affects and symptoms, quite thorough really.*" Veronique believed that:

> *... because I have travelled extensively in rural, remote and developing countries in the past I will draw on my experience and knowledge base. However, I am going to try and consult... it is always good to be reminded of things, things pertinent to the countries you are going to. So I had the vaccinations that I needed to. I had the Meningitis vaccination. There was an option of Rabies vaccine but I haven't decided yet.*

4.2.2.2 Vaccinations

Most of the participants, except Rachel and Sarah, reported that they received vaccination advice as part of their pre-travel health preparations. Sarah's work colleague "*looked up their bible*" and deemed her immunisation status appropriate after vaccination for previous travels. When attending her general practitioner for travel health advice Jennifer "*thought I would be pumped full of needles. I was really dubious about going. I went and I got malaria tablets and I had a tetanus shot*".

Like Jennifer, Stella and Wendy were also advised that they required the adult diphtheria and tetanus booster in order to maintain their immunity as more than five years had elapsed since their previous vaccination. Phoebe received an adult diphtheria and tetanus booster prior to this holiday despite having had a booster vaccine four years previously.

Phoebe and Wendy were also given oral polio vaccine boosters. Wendy recalled that "*I had polio, the on the tongue type one*". Phoebe was given this booster even though:

> *...I had the polio, one on my tongue, when I was in London four years ago. I couldn't make up my mind on my route home and the airline's travel agent had a health service so I was given everything then.*

Stella was the only tourist who reported being previously immunised against measles, mumps and rubella. Phoebe was given the vaccine and was asked whether "*I had any allergy to eggs*".

Wendy was the only participant who reported that she was given immune globulin which provides short-term protection against hepatitis A. Phoebe, Sarah, Stella and Stacey had previously been vaccinated against hepatitis A; as had Veronique who correctly surmised that "I *have had vaccination for hepatitis A so I don't need gamma globulin this time*". Rachel did not recognise the need to be immunised against hepatitis A.

Despite Stacey being fully vaccinated against hepatitis A, receiving advice from her general practitioner, and subsequently commencing her hepatitis B vaccination schedule one month before her holiday she was confused about which vaccine she had actually received:

> *...Jennifer was spewing she didn't have her hep A. Is that the shot that I had? Because they have got a new craze in Bali, they have discovered the art of tattooing. I have got two tattoos, so I was very dubious, but if I had stayed there longer I might have got one. Over there, they were amazing. She probably would have got it done and I probably would have contemplated it too.*

Hepatitis A vaccine protects the tourist when they consume water, fruit and undercooked foods contaminated with the hepatitis A virus through handling. It would not protect the tourist, having tattoos, from the blood borne virus hepatitis B.

To protect themselves against typhoid, another disease that can be transmitted from person to person when there is limited access to clean water, Veronique, Phoebe and Wendy were taking the oral typhoid vaccine before this holiday. Jennifer was not given typhoid vaccination. Stacey and Stella had been previously immunised against typhoid. None of the participants recalled being advised about the limitations of typhoid vaccination and the subsequent need to adhere to food and water precautions.

4.2.2.3 The Tourists' Beliefs concerning Food and Water

All of the participants were aware of the need for general precautions when using water. Sarah, Stacey, Stella and Jennifer all recognised the importance of drinking purified bottled water. Commercially bottled water is available in most areas of South East Asia. Sarah believed that:

> *... it is probably pedantic doing your teeth cleaning with bottled water. I know you should, but whether I do. I never have and I have always been all right so I have probably lulled myself into a false sense of security there. I know I should!*

As an experienced tourist, Veronique knew that she could not guarantee the availability of bottled water. She noted that:

> *... in Bangladesh, they have fizzy drinks. I don't really like fizzy drinks, but it is better than nothing. And tea and hot drinks. Bottled water, only if you can see that it is sealed and that the seal has not been broken. And that it is a reputable bottling system. Otherwise, I will certainly be treating my own water with drops of iodine in one litre of water and letting it stand for half an hour.*

Jennifer was not as well informed, she believed that "*alcohol would kill*" any contaminants when drinking "*tap water.*" She had decided to "*just spit the tap water out*" in order to make cleaning her teeth a safer practice. Jennifer recalled that when she inquired about food and water precautions she was advised, by her general practitioner, that:

> *... because I don't eat meat or shellfish or anything like that, I don't have a worry in the world. I am not even thinking about it. I was until I spoke to my doctor who said that if I don't eat meat or shellfish, I would be laughing and probably wouldn't have a problem with food, just the water.*

With regard purchasing fruit, all of the participants referred to the travel health cliché, 'boil it, peel it or forget it' in one way or another. They had incorporated this advice into their knowledge in various forms. Jennifer recalled it as " *cooked or peeled.*" Stacey believed she was safe with fruit, as long as you "*don't buy it peeled; watch them peel it.*" Stella believed that "*you should peel it, wash it or forget it*" and Veronique intended to follow very restricting, self imposed, "*guidelines by not having ice or ice cream, no salads or water salads, cooked foods or foods that you haven't prepared yourself*".

4.2.2.3.1 Attitudes to Food and Water Precautions

Rachel had a relaxed disposition and believed that water precautions entailed "*just basically drinking out of a bottle*". Sarah recognised that compliance with the "boil it, peel it or forget it" travel health rule might be difficult as:

> *... the main thing will be, will I succumb to the salads and ice. Fruit, as long as I can peel it. It might make it a bit hard on the two islands with the food in the hotels but I can just buy fruit in the markets and I can keep that in my room.*

Sarah's attitudes to food precautions and the possibility of gastric illness were heralded at her pre-travel interview where she proclaimed that "*diarrhoea and vomiting are fine. That passes, everything passes eventually.*"

4.2.2.3.2 Intended Food and Water Precautions

Stella intended to be "*pretty good with what I drink. I will buy clean water, without ice, and only in sealed bottles.*" She considered "*cans of soft drink are a good stand by if bottled water is not available*". Jennifer planned to be very cautious and thought she would "*come back a stick. I will not be able to eat or drink anything.*"

4.2.2.4 Traveller's Diarrhoea

Veronique considered traveller's diarrhoea was the greatest health risk she would face as "*you might come down with some sort of dysentery or diarrhoea, giardia. I am also taking oral typhoid.*" Rachel was not as well as informed as Veronique and thought that she "*might get the runs from too much chilli or something like that.*"

4.2.2.4.1 Tourists' Beliefs about Diarrhoea

Rachel had a laissez faire attitude towards traveller's diarrhoea. She was "*not too concerned*" about this ailment and had decided that should would "*just eat rice*" to treat any bouts of vomiting or loose motions she might have.

Veronique expressed an attitude similar to Sarah's proclamation that "*diarrhoea and vomiting are fine. That passes, everything passes eventually*" when she stated that "*of course when you travel you get the odd day where you are a bit off colour or something.*"

Wendy had also resigned herself to the fact that:

> *...I will probably end up with a funny tummy anyway because it is going to be hot, and with the food. You have to deal with that. It is going to happen anyway! I have got a script, but I haven't got it filled for.... it starts with F.*

Wendy had weighed up the chances of her getting traveller's diarrhoea and:

> *...I thought about it and I figured that I am only away for one week, and in twenty-three years of travelling, I have only had one experience, which lasted for two days. I just figure that if I get a bad tummy I am better to loose it and keep my fluids up.*

She did not elaborate on what form of rehydration she would use but Stella planned to treat any diarrhoea she might have with Gastrolyte™ powder.

4.2.2.4.2 Intentions to Prevent Traveller's Diarrhoea

Stacey intended to take "*Lomotil™, Maxalon™ and all those wonderful things that you need to take with you*" to prevent the inconvenience of traveller's diarrhoea. Phoebe, Sarah, Veronique and Wendy carried antimotility medications such as loperamide (Immodium™) and diphenoxylate (Lomotil™) for treating traveller's diarrhoea with them. Wendy "*figure[d] that someone would have, I could get some. If I get so crook, there is going to be someone who has got some Lomotil™ or whatever.*"

4.2.2.5 Malaria Prevention

All of the participants recognised that as tourists to South East Asia they were at risk of contracting malaria. When travelling to Malaysia neither Rachel or Sarah were prescribed malarial prophylaxis. Sarah recalled that

she was informed that "*I don't need malarial prophylaxis, because it is all resorts and I am not going inland.*"

Phoebe was facing the highest malarial risk of all the participants while travelling in the forested border areas of Thailand (Yung, 1994). As she had scheduled this visit for the last week before returning to Australia, she was not, apparently, prescribed malarial prophylaxis. She reported that she was advised that:

> *... if I get so much as a fever or headache when I get back I have to see a doctor and tell them that I was in Thailand so that they can take a blood test for malaria.*

4.2.2.5.1 Tourists' Beliefs about Malaria Prophylaxis

Jennifer, Stella, Veronique and Wendy chose doxycycline for malarial prophylaxis. The public debate and "*hysteria*" concerning the adverse affects of mefloquine apparently influenced Stella's choice, as she explained that she knew "*somebody who had a rough time with them. She really lost it.*" Wendy's choice of anti-malarial was also influenced by external factors as "*the Larium (mefloquine); four tablets cost $33, and I have had people tell me they hallucinate on them so I thought, well, no.*"

4.2.2.5.2 Attitudes to Malaria Prevention

Stacey reported that she was recommended doxycycline as a combination with chloroquine. However, she intended to take the chloroquine alone as she had taken this chemoprophylactic medication in the past; "*the doctor recommended that I take a course of Vibromycin with them, which I haven't. They are an antibiotic but they have anti-malarial properties.*"

Veronique was well informed about malarial prophylaxis and:

> *... had the choice of about three, I was weighing up the pros and cons of each to find the most suitable. I have actually had doxycycline before and have not had side affects from it. The only draw back is that it exposes you to skin problems. I have really fair skin; I am pretty sensitive to the sun so I have to be extra careful about that. I suppose I will have to be anyway because of the proximity to the sun. I'm a bit higher up there. I have had malaria in the past, even when I was taking prophylaxis, so there is still a small risk.*

Like Veronique, Stacey, Stella and Wendy all drew on their previous experience when deciding on barrier protection against mosquito bites. Stacey believed that "*I have got insect repellent. I have a sunscreen that has an in-built insect repellent. It is too hot over there to wear long sleeves. I have never been bitten over there by a mosquito.*"

The most affective means of preventing malaria, in all tourists, is to minimise mosquito bites. By observing a number of relatively easy precautions Wendy could reduce the risk of being bitten by mosquitoes when:

> *... I won't wear perfume, I never do, and I have travelled a lot. I will have the RID™ with me; I think the cream one is better. I don't get bitten by mosquitoes; I am pretty lucky with that. I will have long sleeves on; I do try and do the right thing!*

4.3 Tourist's Post-Travel Reports of Behaviour

All of the participants were encouraged to attend post-travel interviews where they showed off their holiday snaps and talked about their experiences while on holiday in South East Asia and their health concerns

during the one month, approximately, since their return home. Those who attended the semi-structured post-travel interviews were keen to tell of their holiday experiences:

'Phoebe' had made the most of her two-week stop over in Thailand;
'Stella' enjoyed her family reunion in Vietnam;
'Rachel' spent an exciting time with a group of friends in Malaysia;
'Sarah' tried to relax and enjoy her holiday in Malaysia;
'Veronique' faced unexpected challenges in Bangladesh;
'Wendy' relaxed and enjoyed her holiday in Vietnam, and
'Stacey' had a "*wild time*" with 'Jennifer' in Bali, Indonesia.

4.3.1 The Trauma of Getting Around in South East Asia

When talking about her holiday experiences at the post travel interview Sarah acknowledged that she misjudged the travel health risks in an unfamiliar setting. She had anticipated the need for caution as *"a single girl there by myself, the night market is as far as I will go, I think."* Even though she employed some caution travelling to and from the night market it proved to be an unexpected challenge:

> *... while I was there I asked where the bus stop was, because there are no bus stops, there are unofficial bus stops. So if I came out where I went in I was right. When I came out about three and a half-hour later it was dark. I knew where I was and I knew where I had to get to but there were road works happening and I knew that I had to walk on the road. It was just dangerous. I walked for probably half an hour and I could have kept walking but it would have been hours... It was the only time that I was in a dress and I was conscious of being a European woman a lot. And there was very much a difference between nighttime and daytime because the Muslim girls aren't there and the Malay girls aren't there. And I was there by myself!*

Rachel also spent time shopping in the night markets in Kuala Lumpur and, in contrast to Sarah's belief in the need for caution when travelling alone, she believed that as part of a group "*we are pretty much safe*" in Malaysia. She found that:

> *... because we were in a group we were never approached or anything. We didn't see many other tourists in that area, mainly locals.... there were a few people that had daggers; they were tough rough boys. There were a few little stores where they pressured us to buy things. Other than that, they would never have approached us.*

Rachel recalled another occasion when she joined her group of friends to explore Kuala Lumpur:

> *... we got back to the hotel and we were told that we were in the red-light district. They said that all the pimps hang around there apparently. We said, like, "we didn't see anything". A few guys were trying to sell us videos on the side of the street but other than that that was fine. It was just funny that it had to happen to us!*

Even though Stacey was experienced as a tourist in Indonesia she found that she was still a vulnerable target for pickpockets or thieves. She recalled that while shopping in Bali:

> *... the minute you stop to look at something to buy you are surrounded and I actually had a couple of guys' try and take my ring off. Holding my hand, rubbing it and trying to get my ring off and I smacked him.*

Despite Stacey's warnings and advice to be careful, Jennifer was hassled on the street in Bali when:

> *... a real little sleaze would try and see Jennifer, whether she had underwear on every day. He was just slime. Jennifer went out one night, the night I was sick, and she went out with some other people. I kept telling her "Hold on to you bum bag" and some kids came up to her, some little kids, and he was waving a newspaper in her face and she said the reason she 'jerried' was because he wasn't trying to sell her anything. She grabbed her bag and his hand was in it, she screamed at the top of her lungs. She was screaming abuse at this kid so he just ran away.*

After their experience of being hassled on the streets, Stacey claimed that she and Jennifer became more:

> *... cunning. What we would do, we would take them into our room. "We talked to security "Look we want to buy, but we want to do it in our room. We don't want to be surrounded by everybody else". And they were rapped because they got to spend an hour sitting in our air-conditioned room, drinking lemonade and watching television.*

Local transportation customs presented a real challenge for the tourists in South East Asian cities. Like Phoebe, in Bangkok, Veronique found the traffic in Dhaka a particular hazard:

> *... because the traffic in the central part of old Dhaka is so dense there was just, you know, a lot of road traffic: trucks and cars and rickshaws and bicycles. Because the traffic was so erratic, you were just holding on.... there was just a real traffic problem.*

Phoebe stated that she "*could have easily been killed by a crazy tuk-tuk driver. You have to be careful on the streets.*"

Stella even found she needed to study the art of crossing the street in Ho Chi Minh City. As a pedestrian the local population's general disregard for traffic regulations proved a challenge:

> *...I stood at the corner and watched the locals, as the traffic lights did not seem to have any affect of what people were doing. I figured out that motorbikes gave way to pedestrians and any thing bigger than them. As a pedestrian the idea was to just start walking in the direction you wanted to go without hesitating or looking at the other traffic; they would keep an eye out for you. So I crossed my fingers and walked. It worked!*

Stacey recognised the need for some caution when using local transport to get around in Bali. She hired a driver that she had used in the past to take Jennifer and herself on day trips as it provided them with a certain degree of flexibility and she trusted his driving skills. She had not anticipated that as the driver of the car he had some degree of influence over their movements:

> *... We had organised the car for four hours and we were going to go to the large Matahar department store and a couple of other department stores. The guy kept saying, "Why don't we go to Denpasar Market?" I have been there twice, so I said, "I don't want to go to Denpasar Market". It is just putrid; the stench is just ohh! It is revolting. But he was quite adamant and Jennifer was saying "new experiences and all that." She was just horrified! She was mortified, the stench was overpowering. You get someone that shows you around the market and then you are obliged to buy something. Which Jennifer did and, basically, got ripped off.*

In the holiday environment of Bali Stacey did not practise the same road safety precautions as she would in Australia when hiring the same driver and car to take a group of five to Lovina Beach for the day. The group consisted of "*the driver and his wife in the front, then me and Jennifer on*

two little bench seats in the back and then the family were there". Both Stacey and Jennifer overlooked their usual safety habit of wearing seat belts when in a motor car and spent "*about twelve hours...bumping around and sliding all over the seats*" as the "*roads aren't crash hot.*"

It appeared that Stacey's pre-travel prediction that Jennifer's apprehension and "*being a bit scared*" as a first time tourist in Bali would only last "*for a couple of days and then she will have found her confidence and that will be it*!" was accurate. Jennifer had forewarned Stacey at the pre-travel interview "*that anything could happen, I could make her [Stacey] do anything silly*". When a fellow Australian tourist asked them to accompany him to an adventure park so that he could bungie jump the girls only gave it a moments thought:

> *... because he was in such a hurry, he said that he would get us transport down there. We were saying "we are not getting on motorbikes" and he said "OK." We go out there; he organises three motorbikes. We had to go down there on the back of bikes. That was something I didn't think I would do over there. He was a maniac.*

Stacey reported that neither herself nor Jennifer wore protective clothing or helmets. Jennifer had obviously not thought about the trauma that a motorbike accident posed. She had disregarded her pre-travel anxiety about being injured and that if she "*did anything silly*" or "*if I so much as graze myself I am coming home.*"

4.3.1.1 The Effect of South East Asian Politics

Before leaving for Vietnam, Stella expressed concern about the military requirement that she hand in her passport to the local police station because she was staying in a private home. Stella was without any form of identification when she sought assistance after being robbed while she:

... was sitting on a park bench outside the palace, waiting for it to open, when I felt the straps of my daypack pull at my shoulder. In the second it took me to realise what was happening, it was gone. There wasn't any sign of the thief and the crowd just stood there smiling. I couldn't believe it! They had slit my T-shirt as they cut the straps with a blade. I just couldn't believe it!

When she wanted to report having her bag stolen for insurance purposes Stella found the cultural mores of communist Vietnam prevented her from doing so:

... The police did not let me into the government building because I was wearing shorts. They couldn't understand that I was staying with relatives and that therefore I didn't have my passport or visa to show them. As a western women on her own they were no help at all until my brother's driver came to sort things out.

Like Stella, Veronique found some security in staying with a local family when her companion and herself had came face to face with political unrest:

... at the airport, the opposition called a general strike..., basically the place just grinds to a halt. We had it for two days and because we were foreigners, we were told that we were not allowed to go out. We were staying with a Bangladeshi family and... it was impossible to judge whether it was necessary to be protected, it is just part of the culture and you just have to abide by the rules. When we did go out..., we were not allowed to go out on our own, we had to be chaperoned.

4.3.2 Entering into the Holiday Spirit

The dynamics of travelling with other tourists, and a wish to conform, appeared to inhibit Jennifer and Stacey's travel health intentions. Despite their best intentions to avoid risky behaviours Jennifer and Stacey relaxed and joined a group of tourists at the beach swimming, para sailing and jet skiing. When Jennifer arrived at the Adventure Park, she discovered a slingshot ride and her male companion:

> *... talked Jennifer into going with him. This guy had amazing powers of persuasion. He was unbelievable. He just didn't care. He was smoking a joint and left it at the side of the slingshot when he got on. He said to the guy "just look after that mate." She screamed the whole way. When they let go she just screamed. All I [Stacey] could hear her screaming was "I know I am going to die". All I [Stacey] could do was laugh at her; I laughed the whole time. She came off with the biggest grin and she was on a high for the rest of the day.*

Despite Phoebe's relative experience as a tourist she told of one night in Phuket when alcohol got the better of her:

> *... I had been on the beach all day and decided to have dinner in a restaurant on the way back to the hotel before it got dark. Being on my own I usually made sure I was back before it got to dark outside. I decided to have a local beer with dinner and the next thing I remember was trying to open the door to my hotel room. I don't know how I found my way back, but I got there in one piece.*

Stacey went to Bali intending to "*drink and spend lots of money and have lots of fun.*" She had obviously failed to take into account the high temperatures and humidity and had to admit that she suffered sunstroke in Bali when:

> *... we had been by the pool. I think it might have been the day that we ran up the pool bar bill. A couple of drinks turned into a couple more and the next we knew the pool bar bill had turned into 144,000 Rupee. I woke up the next day and I had a bit of diarrhoea but I wasn't vomiting. I felt sick and I was shivering. "This isn't Bali Belly", I have had that before and this was totally different. I was really cold and really badly burnt on the back of my neck. I was shivering and then I was hot the next minute. I thought, "this is sunstroke" and I just stayed in the room the next day and I was fine.*

Sarah had planned to "*do the factor 15 because I will burn within the first couple of days*" but her sun protection plan was curtailed when by the pool in Langkawi, She would "*have something for lunch at about two or three with a beer... and mooch around the pool.*" While relaxing by the pool Sarah:

> *... got red on the shin and both arms because it had just rained, it was really overcast, and I had blocked out before I went on a swim and I didn't when I went back to the side. And the next day ouch!*

Rachel also experienced the affects of alcohol combined with a tropical climate when she suffered sunburn after spending time drinking by the pool. In Penang, Rachel "*sat by the pool, sunbaked and got burnt. We had hamburgers by the pool, and hot chips and cocktails. They had a pool bar and we basically sat by the pool and drank.*"

4.3.2.1 Pursuing Intimate Contact

All of the participants in this research reported that they abstained from intimate sexual encounters while on holiday. Sarah stated that she "*didn't need to worry about 'safe sex', because I was really safe. I was the safest*

you could get." Although Rachel *"didn't have to get the condom out of it's cover"* she made an alarming misclassification in her *belief* that *"between those on the trip it would have been safe!"*

4.3.2.2 The Tourist's Supply of Drugs

Although Stacey didn't *"think I would like to buy [condoms] over there, just quietly"* she was quite happy to turn to the local chemist in Bali for medications:

> *...you go in there, because you always get a cold or the sniffles because of the dramatic climate change. And you go in there, and like their cold tablets are called 'Stop Cold', and they are brilliant. I have never had anything here that works like they do. It is phenomenal. You cannot read what is on them and I had to ask a little Balinese man to tell me how many I had to take a day, but they were great for things like that.*

Stacey and Rachel found that their fellow tourists were also willing to supply medications for minor ailments. Stacey did not appear to consider the dangers of taking medications that were not prescribed for her when:

> *...we met some lovely people who were staying in the next room, they were from Perth, who we shared our drugs with, they shared theirs with us, and they were really nice.*

Rachel was just as generous as Stacey's neighbours were. When one on the tourists in her group suffered from a bout of diarrhoea she willingly shared her medications with them:

> *...we all sort of had medication to cover it. So we all sort of dried it up quickly. I can't tell you what it was but it was something that made it go away in twenty-four hours.*

Stacey and Rachel, like the tourists they befriended, failed to appreciate that pharmaceutical standards and restrictions vary considerably from one country to another.

4.3.3 South East Asian Cuisine

Eating offered the tourist the opportunity to mix with people and experience the local cuisine. Cultural mores and the local rituals surrounding eating greatly influenced what food Veronique had access to:

> *...It is hard when eating isn't cultural. Women don't go onto the street, so the restaurants are for middle class men and the foreigners. The middle classes only accept foreigners so you are paying foreigner prices and they were too expensive. That would have been out of our budget. In villages or in towns, when we were staying with Bangladeshi people or in Bangladeshi hotels, the food was cooked for you and I think we were..., basically we were safe. If we had been eating off the street, yes there would have been more risk, unlike India actually. My experience was that in India you could always find a place that had a range. That is not the case in Bangladesh.*

Veronique found that local "*foods off the street, that you can see visually, how they have been cooked and how they are being prepared are a better option than sort of those that you can't.*" She recognised the advantages to choosing food carefully from the local market and eating food from street stalls that has been cooked in front of her. Wendy failed to appreciate the health benefit of eating food that the locals know how to prepare when she "*had pasta and pizzas. You get sick of the soup and the local noodles. I don't need to eat local food to know I am in another country!*"

Despite her best *intentions* to "*buy fruit in the markets and I can keep that in my room*" while on Langkawi Sarah:

> *... didn't see any (fruit). I have no idea where the fruit was. I never found any fruit for the whole week. I found coconuts. There was no fruit. It was rambutan season. There was just no fruit! I have no idea where the locals get their fruit, certainly not up the main road going around the island. Nothing!*

Sarah stated that she was:

> *... annoyed at times because I couldn't get any fruit and I was hanging out for salads. I could eat the fruit in the hotel, they had fruit platters, and that was fine. I couldn't buy it to do it yourself, so you had to pay the price.*

She found that the 'price' for not having ready access to fresh fruit was that she was confined to the restaurants and coffee shops provided on the resort island:

> *every night they had a different theme, you could see the food brought in and piled on, and you had to wonder. I was fine but you certainly wondered about it!*

As Rachel discovered, such restaurants offer no guarantee of safety from poor hygiene standards:

> *... We were asking people for directions on where to go for good restaurants. So we went and we saw one with pink tablecloths. We thought "This looks O.K., it is clean." We sat down and we ordered our satays and they sought of ran down the street to pick up the satays. We got some rice and some noodles.... We got our food and we ate. Yummy, yummy, nice and tender! All of a sudden, one of the girls sitting opposite's face went a bit white. We were sitting outside the restaurant, undercover, and we sought of turned around to where the kitchen was, it was all*

glass and pretty open. We turned around and there was this rat. It would have been at least a foot and a bit. It was huge and it was running up the wall! We saw it actually going down in the kitchen. That was it! We just sat there and went "We do not do rats!"

Sarah also had an unexpected encounter with a rat. She:

... was sitting there and just out of the corner of my eye I saw something. I sat there and I thought, "I will have to get up and have a look." And then I opened up the console door to the fridge and there was this gray rat! When I saw the rat it just went with all I knew about the place. I wasn't surprised. When you walk out of the hotel, which is beautiful, you walk onto a dirt road with open sewers, cow shit, dog shit. Its just... it is beyond... it is not even third world, it is beyond that!

Rachel and Sarah were not alone in having their dining influenced by animals. Every time Jennifer and Stacey "*bought food from a food stall there were dogs there and people in Bali don't feed them, they just ignore them.*" Stacey recalled that when they stopped at a drink stall on Lovina Beach there were:

... two baby monkeys tied up out the front. That was the end of me, I just sat there playing with them. She wanted to sell me a drink and I didn't want one. She would have sold them! She would have sold them to me for 50, or $25. I wanted them desperately. I thought customs will hate me. I can't take them home. If I buy them and let them go they are either going to catch them again or else they are not going to survive. Whilst it is sad being tied up to a chair, they are probably better off that way.

On her last night on Ko Phi Phi Phoebe:

> *... was left speechless! It was a special seafood night where you pick the freshly caught, still alive, fish that you want cooked for your dinner and they cook it Thai barbecue style while you wait. I was sitting there watching them cook the barbecue when all of a sudden the cats from the island bar chased each other across the pile of fish waiting to be cooked. My stomach lurched and I told myself that I would be safe if I caught anything, because I was going home within forty-eight hours.*

Sarah also sought solace in the fact that she knowingly timed her seafood dinner for the last night of her holiday in Malaysia:

> *... The only thing that I did, and I don't think it was dangerous, but it had the possibility, was the shellfish. I had crab. It was a live one that I picked and half an hour later it came back to me. Now, whether it was the same one I don't know but I didn't get sick so there! And, I knew at the time but it was cooked so I thought let's take a punt. If it looked bad, I probably wouldn't do it. I think it was probably more luck, and I did it on the last night.*

Sarah hinted at the fact that she was aware that local knowledge of fish is important when choosing a seafood dish in South East Asia.

Sarah also discovered that despite her knowledge and intentions to only drink bottled water circumstances at times prevented her from doing so:

> *... I was so tired, so tired. I was so dry because I hadn't drunk anything and I didn't have any water. I got a bottle of beer and I downed that. I just wanted to go to bed, there was a kettle there, I filled it, and I went to bed.*

In the relaxing environment of her family's Vietnamese home Stella admitted that:

> *... it wasn't until I went to do my teeth one day that I realised that I didn't know where the water in my jug came from. I was quite surprised that I hadn't even given it a second thought. I asked my sister in-law and she assured me that each night they treated their water and that is what the housekeeper filled my jug with.*

Like Stella, Veronique found that the hospitality of others directly influenced her intentions to take care with water precautions as the host's:

> *... culture is that you never have a guest with an empty cup so as soon as you drink they fill it up again. If you take three sips and think oh good! They come and fill it up again. You are always.... you have to remember that it is polite to drink so you drink.*

Veronique's *intentions* to use water precautions in Bangladesh were also overwhelmed when:

> *... we were drinking water, through necessity, from a well in the village. We were very confused; some would say it was safe to drink and others would say, "we don't know" and were a little hesitant. When there was only one well it was better to drink something than to get dehydrated. I guess I went with iodine and I have treated water before. I guess we were able to buy bottled water in some places or we were told that the water we were drinking had been boiled and filtered so I guess it was in our mind to trust that it was the case. That it would have been dealt with. I guess that I did use the iodine once or twice in the times when I was most doubtful. If you go to a village and there is a welcome for you and you haven't had anything to drink for four or five hours and you don't know where your next drink is going*

to come from so then you drink. There is an element of cultural politeness and there is an element of meeting your own bodies needs.

Stacey valued the fact that "*you can buy the big 10 litre things of water from the supermarkets for about $3.*" When relying on bottled water the seal of the bottle must always be checked as Stacey discovered some traders:

...pick up two empties on the beach, top up one, walk about two hundred metres down the beach and sell it to the next tourist. So you have to make sure they open it in front of you.

While enjoying a few drinks with friends in a bar, Stacey recalled that:

... they had Harvey Wallbangers, we were ordering glasses, and at a quarter to eight we ordered a jug... they must have rinsed the jug in tap water. I was throwing up Harvey Wallbangers for sixteen hours solid. Then we were fine after that. That is all it was; they must have rinsed the jug in tap water.

Despite this Stacey acknowledges that "*I got to the stage where I was cleaning my teeth, and stuff, in the tap water in the hotel and that was fine!*"

4.3.3.1 Traveller's Diarrhoea

Veronique's experience in Bangladesh was that *"in terms of food there were occasional days of upset stomachs, a bit of diarrhoea or a loose bowel motion, but there was nothing prolonged. All it needed was one off prawn in a bowl of soup."* Stacey reported that *"I had the runs a little but that is normal; that is normal over there."* She did admit that while she was in Bali *"the Lomotil™ got a bit of a pounding"*.

4.3.4 Taking Precautions against Malaria

During the post-travel interview both Stacey and Wendy contemplated their gamble concerning malaria and their subsequent inability to follow through with their proposed antimalarial regimens. When Wendy became ill after her holiday in Vietnam she "*wonder[ed] with those malaria pills; if they were worth it though.*" Wendy developed "*a bit of a cold*" on her return to Melbourne:

> *...I got home. I took the malaria pills. I took the doxycycline. Three weeks I took them, and I was away for another weekend as well. I had a bit of a bit of a cold, and I get bronchitis because that is what I get. I went to the doctor to get some antibiotics. I told him I was taking the other ones, and would there be a problem. I don't know if the doxycycline was making me ill? I have been as crook as a dog, real crook. I do get a funny tummy with augmentin. I have to take two weeks worth to clear up the bronchitis. I was at the hotel and I was vomiting. My heart was pumping, my chest was hurting. I was stepping in a different place to where I thought I was. I was a mess. I only had two [doxycycline] left to go. I actually... there were more tablets. I had actually taken a full two weeks; there were a couple of spare tablets. I was going to take all the tablets they had given me.*

When discussing the possible cause of these side affects, Wendy acknowledged that "*absolutely, of course*" she had been drinking alcohol around the time she took her doxycycline doses. She considered the possibilities that this might have had some affect and added that, despite her pre-travel precautions, "*maybe I wasn't taking them at the same time every day.*"

Stacey reported that she also had difficulty persuading Jennifer to carry out her antimalarial regimen:

> *... Then Jennifer, she had the doxycycline. I would say to her "Did you take your antibiotic?" "No I forgot I will take it tomorrow". So the next day would come and I would forget to remind her. The day after that "Did you take your antibiotic?" "No I forgot, I will take it tomorrow" and she just forgot for three days so that was a bit of a waste of time getting them.*

After spending one week holidaying in Bali, with Jennifer, Stacey's disposition with regard to her own anti-malarial regimen may have been influenced by her sentiment that "*my chloroquine tablets taste like shit, they are horrid*". Stacey was quite matter of fact in stating that:

> *... we both didn't take malaria tablets. We both forgot. Well I did for the two weeks before I left. For the one Sunday that I was over there and then I was home for the next Sunday. The Sunday I got back I forgot, I thought of it on the Monday. The next week I forgot, the next week I forgot. I thought "Oh well I am not sick yet, so...!"*

Stacey was not alone in relaxing her beliefs, attitudes and intentions. Despite their intent to "*do the right thing*" the eight participants in this research expressed a great deal of ambiguity in their knowledge, attitudes and intent regarding the travel health risk factors in all of the areas identified in the relevant literature; trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases. This ambiguity, when combined with the relaxed atmosphere and reduced inhibitions of South East Asia's holiday environment exposed the tourists to health risks they may have otherwise avoided. These findings are discussed in depth in Chapter Five.

CHAPTER FIVE

Discussion

5.0 Introduction

Throughout this research the relevance of Australian tourists' travel health advice, beliefs, attitudes and intentions in predicting their travel health behaviours when travelling in South East Asia has been explored. In chapter one the aims, background and need for this nursing research to cover the virgin territory of travel health advice and tourists' behaviour were introduced. In chapter two the relevant literature was reviewed. It was discovered that since 1988, when travel health was recognised as a medical specialty, there has been a vast range of medical and scientific information published for the tourist, their travel health advisers and, in the event of illness, their health care providers to consider. The focus of the research and literature available has traditionally been on the pathogenesis and treatment of the health concerns that fall within the realm of travel health. It has only been recently, with the bulk of current opinion available on specialised computer databases to aid diagnosis and treatment decisions, that the focus of travel health research has moved towards the psychology underpinning travel health behaviour and the means of persuading tourists to practise preventative health measures.

Chapter three explained a methodology that allowed the researcher to explore the relationship between the travel health advice the tourists received, their pre-travel health intentions and their reported travel health behaviours. The methodology used for this exploration was that suggested by the theory of reasoned action (Ajzen & Fishbein, 1980). This research into travel health has therefore rested on the assumption that Australian tourists are reasoning people who are able to systematically process the travel health advice available to them.

Throughout the research process, Ajzen and Fishbeins' (1980) theory has been viewed as a series of hypotheses linking travel health behaviours to the tourists' pre-travel intentions, intentions to the tourists' attitudes to travel health, and attitudes to their travel health beliefs. These hypotheses were reflected in the aims of the research:

- To explore the relevance of stated *beliefs*, *attitudes* and *intentions* in predicting travel health *behaviours* of Australians travelling to South East Asia;

- To explore the relationship between the tourists' *attitudes* and subsequent travel health *behaviours* in South East Asia;

- To ascertain the travel health *intentions* of a sample of Asutralian tourists holidaying in South East Asia;

- To identify the relationships between stated travel health *intentions* and reported travel health *behaviours*;

- To record a sample of Australian tourists' accounts of illness and/or accidents associated with travel in South East Asia.

Throughout the research we accepted the causal link suggested by Ajzen and Fishbein in the theory of reasoned action, and developed their premise so that the tourists' behaviour was ultimately determined by the travel health advice that the tourists received. Therefore, we also explored the travel health advice sought and recalled by the eight participant tourists prior to, during and following their holidays in South East Asia in relation to its source, extent, relevance and persuasiveness.

In chapter four the findings from the pre- and post-travel in-depth interviews with the eight participants were presented. The findings suggested that the tourists' travel health behaviours were influenced by a

variety of beliefs, attitudes and intentions regarding the travel health risks associated with all the areas of concern; trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases.

This discussion chapter is divided into seven sections, with the relevant subsections, to further explore the findings:

5.1 The Tourists' Beliefs about Travel Health in South East Asia

According to the theory of reasoned action (Ajzen & Fishbein, 1980) the quality of the advice, resources and past experiences that the tourists had to inform their beliefs would greatly influence the control they had over their behaviour. When discussing their holiday plans the eight women who participated in this research were excited about holidaying in South East Asia. Their excitement grew from their belief that they were going on holidays to a place that offered them the opportunity to experience something exotic, which was very different to their home environment, Melbourne. They looked forward to the opportunity to relax in the sun and planned on having a good time.

As a first time traveller out of Australia, Jennifer was a bit nervous about her trip abroad. As a novice she was naive about the opportunities Bali offered and believed that a week on Kuta Beach would be like a "*health spa*

week". The opportunities available to tourists on Kuta Beach are largely governed by the huge number of bars present, with the associated problems of holidaymakers drinking large volumes of alcohol. Johnston (1988) found that Australians out drinking on Kuta Beach were fair game because they were in no fit state to protect themselves. This environment obviously placed unsuspecting tourists, like Jennifer, at personal risk. Jennifer's travelling companion Stacey was a little more experienced and had been to Bali before. She believed that she knew all about the pitfalls associated with exotic environments like Kuta Beach. Even so, she was excited by the opportunity of showing her friend, Jennifer, a good time.

Cossar et al. (1990) suggested that for less experienced tourists, like the majority of those participating in this research, South East Asia offered a holiday opportunity where they could indeed relax and have a good time. They were able to relax as they unknowingly exposed themselves to travel health risks and were therefore less inhibited. The experienced tourists were more aware of the obstacles and impediments that they would face in South East Asia. They anticipated the risks and knew that they could not afford to relax as much as they would have liked.

All of the participants believed that South East Asia provided enough of a health risk to seek pre-travel health advice. They all recognised the need to take out travel insurance and to take basic precautions against vaccine preventable diseases, malaria and travellers diarrhoea. The theory of reasoned action (Ajzen & Fishbein, 1980) suggested that as the tourists believed there were health risks, and had been motivated enough to seek travel health advice, they would practise preventative behaviours and would have greater control over the travel health risks they faced.

Even though the participants believed that they had a good understanding of the travel health risks that they might face they had not anticipated fully the cultural restrictions that would be placed upon them while travelling in South East Asia. Sarah had not anticipated the difficulties of travelling alone at night in a Muslim country like Malaysia. Stella had not anticipated having

to deal with the communist authorities when her backpack was stolen in Vietnam. Their lack of knowledge of the cultural mores had placed them in a position where they became anxious about their safety and were no longer able to relax. If the tourists had sought more resources about their holiday destinations, or had had a previous opportunity to explore South East Asian cultures they could have avoided the obstacles and impediments they faced and had a good time.

Even though Stacey had travelled in South East Asia previously she did not appreciate the danger inherent in hiring a car that was not fitted with seat belts to take a group on a 12-hour day trip to Lovina Beach. The excitement offered by the opportunity to go on a day trip to a tropical beach was enough to seriously impede the entrenched road safety precautions that the tourists would usually, automatically, practise in Melbourne.

All of the tourists acknowledged the dangers inherent in the opportunities of an exotic holiday romance. Although none of the participants reported any holiday romances Rachel's belief those sexual relationships "*between those on the trip would have been safe*" was cause for alarm. Rachel however is not alone in her belief, as Mulhall et al. (1993) found that 21.7% of women were more likely to choose fellow Australians a sexual partners while on holiday. All tourists need reinforcement of the fact that it is not where their sexual partners are from, or where they are geographically that affects their risk of sexually transmitted diseases, it is what they do with them that counts.

When Stacey 'fell in love' with two monkeys tied up at a drink stall on Lovina Beach she knew that the Australian Customs authorities believed they posed a risk to peoples health and would not let her take them home. Again, in the excitement of the opportunity to play with the animals she ignored the risk they posed to her health. Diseases transmitted by such animals present a very real health risk four tourists in South East Asia. Bites, licks or scratches can transmit rabies or plague. Torvaldsen and Watson (1998) found that the greatest number of rabies exposures

worldwide occurred in Thailand, followed by Vietnam, Indonesia and the Philippines.

It appeared from the participants' accounts that the excitement of being in exotic and novel environments affected their ability to think beyond their hopes and desires to have fun and relax. The participants' strong belief in the value of having a good time proved too much of an obstacle to their ability to recognise the newly acquired travel health beliefs. The tourists' intentions to honour their travel health beliefs and practise the optimal preventative behaviours were impeded accordingly.

From the reports of the tourists' behaviour it would also appear that alcohol impeded the tourists' ability to reason when trying to behave according to their beliefs. For example, Wendy believed malaria prophylaxis was such an issue she sought numerous opinions yet her behaviour in Vietnam does not reflect the value she placed in them. She did not take them as prescribed and admitted that she was taking alcohol with them. Her behaviour would have inhibited the action of the medication and exposed Wendy to a greater risk of contracting malaria.

Rachel, Sarah and Stacey had not factored in the affects of combining alcohol with a tropical climate. They were unaware that the humidity and heat would accelerate the affects of alcohol and place them in a frame of mind where they were so relaxed they did not think about their pre-travel belief that protection from the sun was important. They all got sunburnt and when drinking by the poolside, Stacey was so burnt she suffered sunstroke. Dardick (1992) suggested that the most common heat related problem for tourists in South East Asia was likely to be sunburn as they relaxed and forgot to 'slip, slop, slap'.

Despite Phoebe's immediate experience as a tourist in Europe, she told of one night in Patong Beach, Phuket, when a day of sun and alcohol got the better of her. She had spent the day on the beach and decided to have a few drinks with dinner, which left her in the unenviable position where she

"didn't know how I found my way back to the hotel". Her desire to relax and have a good time, when coupled with alcohol placed her at extreme risk. In the thriving sex industry scene that pervades on Patong Beach, Phoebe's alcoholic or drug induced gap in memory could have involved a number of risks to her personal safety as well as the risk of contracting any of the sexually transmitted or injecting drug related diseases. At the post-travel interview Phoebe had obviously not thought about these risks and had not sought travel health advice after the incident.

All of the tourists who participated in this research believed there was a value to them if they practised preventative travel health behaviours. Yet it would appear from the findings concerning their beliefs about South East Asia, that the value they attached to their hopes that they would be able to relax and have a good time had a greater value strength than their beliefs about practising preventative travel health behaviours. This has implications for the travel health advisers who need to persuade the tourists of the value of new travel health beliefs. It is also something that the medical and nursing staff needs to be aware of when treating these patients, as their behaviours would at first glance appear irresponsible.

5.2 The Relevance of Tourists' Attitudes to Travel Health Behaviour

According to the theory of reasoned action (Ajzen & Fishbein, 1980) the tourists in this research would have compared the inherent value of their attitudes towards all of their beliefs, choosing to perform the behaviour with the strongest value. As we have already discussed the tourists' belief that they were going on holiday to have a good time and relax was valued the highest. Their attitude towards behaviour that would result in their having a good time and relaxing would therefore have the strongest value.

The tourists participating in the research needed to be persuaded by the travel health advisers to think before they acted so that their 'new' attitudes towards travel health behaviours could influence their highly valued 'base'

attitude that they were going on holiday in South East Asia to relax and have a good time. According to Ajzen (1992), the more the tourists believed that adopting travel health behaviours would lead to positive outcomes, the more favourable the tourists' attitudes towards the travel health behaviours would be and the more likely they are to behave that way.

The tourists' negative attitudes to food and water precautions were reflected in their positive attitude toward traveller's diarrhoea. Their attitudes to traveller's diarrhoea were not as negative as they could have been as they believed that it was inevitable and would pass eventually. The value they saw in practising food and water precautions was obviously not positive enough to significantly influence their negative attitude, that traveller's diarrhoea was going to happen anyway. The balancing of the positive and negative values left the tourists in a position where they felt helpless to do anything positive that would prevent them from contracting food and water borne diseases.

The tourists' attitudes to the travel health issues were usually formed when they evaluated or scrutinised their travel health beliefs and the value of the arguments they were given through the travel health advice they received. The formation of these attitudes requires careful scrutiny and understanding of travel health behaviours. For this to occur, Vincent and Fazio (1992) found that tourists must be motivated and be able to process the perceived values of the travel health advice provided. As a novice traveller Jennifer seemed to have a relaxed attitude to the risks associated with blood borne viruses. Her attitude may have been due to her lack of motivation or inability to process the travel health advice she had been given about hepatitis B. Her ignorance could have placed her at risk when she thought seriously about a tattoo in Bali.

Attitudes developed through close scrutiny by motivated tourists have been found by Petty and Cacioppo (1986) to be relatively accessible, persistent over time, predictive of behaviour, and resistant to change. That is, until they were impeded by obstacles. Stella had hoped to start relaxing

as she boarded the plane to Vietnam. She had been having a good time until she was robbed and as a result became very cautious about where she went and what she did in Ho Chi Mirth City thereafter.

Experienced tourists are more likely to have attitude-consistent behaviours. Because of Stacey's experience as a tourist in Indonesia she had already formed an attitude towards pickpockets and thieves, She was able to draw on her direct experience when a thief tried to steal her ring. Vincent and Fazio (1992) suggested that it was because Stacey's attitude was readily accessible that she was able to respond automatically and "*smacked him*". Despite Stacey's warnings and advice regarding her experience, Jennifer was hassled on the street in Bali. Because her attitude to the possibility of being robbed had been formed from indirect experience and was peripheral to her own experience, it took some time before she realised she was also being targeted by a group of pickpockets. When the tourists possess peripheral attitudes that are not automatically accessible, such as in the case of Jennifer, the tourists may not behave in a manner consistent with their attitude. After her own experience Jennifer's attitude to pickpockets had more value and she got more "*cunning*".

Peripheral attitudes can also be formed when the tourists respond to simple cues or prompts, such as when the participants were asked if they had considered the possibility of suffering accidents or injuries through trauma while on holiday. They all responded with a statement that they had taken out travel insurance. Even though a response was readily accessible none of the tourists had scrutinised the advice enough to fully understand what their insurance covered.

These peripheral attitudes are only affective in the short-term as they are not resistant to persuasion. Stacey recognised that her travel companion, Jennifer's attitude that her stay in Bali would be "*my health spa week*" was open to persuasion. She was correct in predicting that Jennifer's cautious attitude would only last until she was a little more confident. In cases such as Jennifer's, her travel health behaviour was instead guided by situational

obstacles such as having no bottled water available when cleaning her teeth, a car that was not fitted with seatbelts, and no helmets being available when riding a motorbike.

From this discussion it would appear that attitude consistent travel health behaviour is dependent upon the value the tourists think they will gain from behaving in the way advised. The tourists must be motivated enough to scrutinise the travel health advice they are given so that they can form a strongly valued attitude to the positive outcomes possible. The stronger their attitudes and beliefs the more likely they are to overcome obstacles or impediments that they face when trying to practise preventative travel health behaviours.

5.3 The Persuasiveness of Travel Health Advice

In order for travel health advice to persuade the tourists' travel health behaviours the tourists must be motivated by the travel health adviser to scrutinise the advice given. They then need to integrate the 'new' advice into their beliefs and attitudes before the travel health advice could be considered to be persuasive. The challenge facing the travel health advisers approached by the participants in this research was to provide travel health advice that would have enough value strength to persuade their beliefs, attitudes, intentions and subsequent travel health behaviours.

Although the context of travel health must be considered, Ajzen (1992) found that the messages themselves, designed to sway the hearts and minds of the tourists, were at the core of persuasive communication. Persuasive communication, such as travel health advice, involves the use of verbal and written messages to influence beliefs, attitudes, intentions and behaviours.

Through a process of reasoning, the travel health advice received by the eight participants exerted its influence by force of the arguments it contained. Fishbein and Ajzen (1981) believed that persuasive communication, such as travel health advice, consisted of three parts: an

advocated position, a set of general arguments in support of the advocated position, and specific factual evidence designed to bolster the general advice. The advocated position may be a stand on a particular issue (eg., 'safe sex') or a recommended action (eg., taking anti-malarials). The travel health advice received by the tourists should have typically supplied reasons for adopting the advised behaviour, and factual evidence providing justification for the advice.

The tourists in this research were far from passive when receiving travel health advice. The participants were unusual as all eight tourists were motivated enough to seek travel health advice prior to holidaying in South East Asia. Frank Small and Associates found that 58% of Australians, who travelled overseas in the previous two years, had not been motivated enough to seek any form of travel health advice or consulted any travel literature for health information (McLean, 1997).

The persuasion that occurred when the tourists were sufficiently motivated to scrutinise the content of the travel health advice, and to evaluate the value of the arguments it contained, has been termed the central route of persuasion by researchers Petty and Cacioppo (1986). According to their approach the tourists carefully scrutinised the arguments for and against the travel health advice, incorporated the advice as a belief, attached an attitude they valued and intended to behave accordingly. Petty and Cacioppo (1986) went on to suggest that persuasion via the central route depends on, and is determined by, the degree to which tourists scrutinise and elaborate on the travel health advice presented.

The challenge facing the travel health adviser in trying to produce a change in the tourists' beliefs and attitudes via the central route of persuasion was to create travel health advice that would originate positive beliefs, attitudes and intentions and persuade them to change their behaviour. Petty and Cacioppo (1986) suggested that to the extent that the number of arguments generated on the positive side exceeded the number of

arguments on the negative side, the tourists would change there beliefs, attitudes and intentions regarding the advocated travel health behaviour.

Ajzen (1992) suggested that travel health advice, which contains many arguments, should be seen as more persuasive than travel health advice, which contains few arguments. However, when consideration of the travel health advice offered leads to more negative than positive arguments, either no change in beliefs, attitudes or intentions or a 'boomerang affect', change in the opposite direction, may occur. When the tourist's reasoning consists predominantly of counterarguments and opposite experiences, then Petty and Cacioppo (1986) found that further emphasis on the arguments for the advised behaviour can be quite detrimental to the travel health adviser's purpose. Clearly, in order to persuade tourists to change their travel health beliefs, attitudes and intentions, it is in the interest of the travel health adviser to select strong arguments, and avoid including arguments that may elicit negative attitudes to the advocated behaviour.

The use of the central route of persuasion when providing travel health advice assumed first, that tourists were sufficiently motivated to exert the required cognitive effort and secondly, that they had the ability to carefully scrutinise the travel health advice. The findings in this research suggested that the participating tourists' motivation, and at times their ability to scrutinise the travel health advice, may have been limited.

When the tourists' lacked the motivation to, or could not, process all the *travel health advice* given to them they developed coping mechanisms to respond to the persuasive arguments which might detract from their hope and desire to relax and have a good time. Chaikon (1980) suggested that one method of coping with persuasive arguments was for tourists to look for simple 'rules of thumb' or peripheral cues to form travel health beliefs, attitudes and intentions. A 'rule of thumb' was used by all of the participating tourists with regard to purchasing food and water. They all referred to the travel health cliche, 'boil it, peel it or forget it' in one way or another. They had not been motivated enough to scrutinise this travel health

advice carefully as they had incorporated it into their beliefs in various forms. The value of the 'rule of thumb' may have been further impeded by their base desire to relax and have a good time.

Chaikon (1980) noted that 'rules of thumb' such as this are far less persuasive as a basis for beliefs, attitudes and intentions than are arguments that have been scrutinised by the tourists. The findings from this research support this as the participants' inability to scrutinise the food and water 'rule of thumb' influenced the value strength they gave to their directly related beliefs and attitudes regarding food and water precautions and traveller's diarrhoea. An analysis of issues like this by researchers such as Ajzen (1992), Fishbein and Ajzen (1981) and Petty and Cacioppo (1986) revealed three important aspects of travel health advice's persuasiveness: source, extent and relevance.

5.3.1 The Source of Travel Health Advice

Petty and Cacioppo (1986) suggested that the most persuasive peripheral cues to guide attitude and behaviour change are those source factors such as the travel health adviser's attractiveness, credibility and trustworthiness. Therefore, it is not so much what advice is given, as who the adviser is that counts.

None of the travel health advice given to the participants was presented in a vacuum. In this research we have identified that the sources of the travel health advice, the travel agents, health care professionals and friends, all had an affect on the persuasiveness of that advice. Ajzen (1992) identified the observed or inferred characteristics of the adviser as the main source factors influencing persuasiveness. In this research, the source factors that influenced the persuasiveness of the travel health advice given include the adviser's expertise, friendliness and trustworthiness.

5.3.1.1 Travel Agents as Sources of Travel Health Advice

The travel agents approached by the research participants failed to provide persuasive travel health advice even though they had weeks or months in which to do it. The tourists had planned and booked their tickets and accommodation that far in advance. The tourists participating signed an agreement that they had received travel health advice from the travel agents. Despite this, the findings show that the tourists appeared to have little or no recollection of the advice they were given. Phoebe and Veronique were the only participants to recall the travel agents giving them any form of advice. Neither had developed the sort of friendly or trusting relationship with the travel agents that was required if the travel health advice was to be persuasive.

'Travel Safe' campaign brochures, concerning the arguments for using healthy sexual practises, should have been included in each tourist's travel papers at the time of ticketing as required by the Australian Federation of Travel Agents (Simpson, 1993). None of the tourists participating in this research recalled that they had received this travel health advice let alone considered the arguments it contained. The travel agents risked liability, according to Dougal (1993), by not providing basic travel health advice concerning 'safe sex' practises, the need to avoid injury, and the need to seek medical assistance if suffering a fever.

The fact that travel agencies are often busy, cramped places may have impeded the amount of travel health advice the tourists received. According to Fishbein and Manfredo (1992) situational obstacles such as environmental or internal distractions may have impeded the communication process. Noise or activity may have distracted the travel agent and tourist. Both may have been preoccupied with other concerns such as the holiday schedule, finances or paperwork. In such an environment, Ruff (1993) suggested that it would be difficult for the travel agents to discuss sensitive health issues such as persuading a tourist to practise 'safe sex'. Instead, according to Ivatts, Plant and Condon (1999) the travel agents

were more comfortable giving advice concerning travel health insurance. From the participant's accounts, it appeared that the travel agents persuaded all of the tourists to take out travel insurance. The travel agent's bias, towards providing travel health advice that may earn them a commission, severely affected their trustworthiness as travel health advisers (Ajzen 1992).

5.3.1.2 Health Professionals as Sources of Travel Health Advice

Because behavioural change is so important in staying healthy while travelling (eg., avoiding traveller's diarrhoea or preventing insect bites), health professionals must make every effort to persuade the tourist of the value of following their travel health advice. It was noted earlier that according to Ajzen (1992) the persuasiveness of travel health advice increased when the adviser has some credibility. The majority of the participants approached their general practitioners for travel health advice would indicating that they trusted their expertise in travel health.

Finding that all of the participants sought travel health advice from medical practitioners was unusual as it has been estimated by Cottrell-Dormer (1998) that only one in five Australian tourists sought medical advice before travelling. General practitioners have an advantage as travel health advisers, as they are usually familiar with the tourist's lifestyle, their immunisation history and relevant medical history.

The participants generally respected their general practitioner's opinion. Wendy was anxious to hear all the arguments available and sought a second and third opinion before deciding on what vaccination schedule and malaria advice she would accept. Stella on the other hand imagined that she already knew what shots she needed. She only managed to squeeze in *"a quick 10 minute chat"* with her travel health adviser. It did not allow any time to enter into a reasoned discussion of the values inherent in the travel health advice presented, let alone any other advice that she should have received.

Stacey sought travel health advice one month prior to travelling which allowed her general practitioner to give due consideration to the travel health advice she needed and he was able to persuade her to have hepatitis B immunisation as well. He was not as persuasive when he came to malarial prophylaxis. Stacey relied on her past experience rather than be pushed by the doctor to do as he advised. Petty and Cacioppo (1986) suggested that a travel health adviser who sets out to persuade tourists, as Stacey perceived in this encounter, is deemed to be less trustworthy than an adviser who simply wants to prompt reasonable thought about the preventative behaviours in question.

Jennifer, a novice traveller blindly trusted her general practitioner's expertise in travel health advice. His expertise turned out to be a simple country by country formula. Dardick (1992) suggested that when general practitioners know the destination of tourists, it was unprofessional of them not to provide travel health advice without taking into account the tourists' accommodation, travelling companions or prior inexperience. The general practitioner may have been better informed when giving Jennifer advice if he had taken the time to consult a primary resource for travel health information such as that available free over the Internet from the Australian Depatment of Health, the Centres for Disease Control and Prevention, Foreign Affairs and Trade Australia or the World Health Organisation.

Phoebe and Veronique sought out the expertise of specialised travel health clinics to advise them prior to their holidays in South East Asia. Such clinics undoubtedly have their advantages: the staff have expertise in the area, they have access to a greater number of resources and they allowed between 30 and 60 minutes to scrutinise the tourist's individual needs. The specialist travel health clinics provided the only written travel health advice received by the tourists. Dardick (1992) believed that the provision of such written material might prompt the tourist to recall the travel health advice received and would increase the likelihood of a change in behaviour.

None of the participants reported that they received any nursing care or advice with regard to travel health. Nurses would more than likely have been involved in giving advice and vaccinations to these tourists, particularly at the specialist travel medicine clinics, where nurses provide most of the direct care under the supervision of a medical specialist. This finding is contrary to Carroll, Behrens and Crichtons' (1998) research that found registered nurses were called upon to counsel and immunise significantly more tourists than did general practitioners.

Stacey and Wendy both credited pharmacists with travel health expertise when they sought their advice on medications and vaccination schedules. Their trust may have been misplaced when you consider that of the 136 pharmacists approached by Kodkani, Jenkins and Hatz in 1999, only 13% made correct recommendations about vaccinations. There was also a bias found towards recommending anti-diarrhoeal medications rather than mentioning the need for increased fluid intake for treating traveller's diarrhoea. Such bias affects the trustworthiness of the travel health advice provided.

The literature review and findings suggest that the expertise of health professionals varied considerably. As the discipline of travel medicine increasingly becomes specialised the health care professionals are expected to remain informed of current expert opinion so that they can be trusted to present all relevant travel health advice. Travel health advisers must know the tourists they advise, tailoring their advice to meet the tourists' level of knowledge and experience. They must motivate the tourists to change their 'base' beliefs and attitudes regarding the value of relaxing and having a good time, by accommodating 'new' travel health beliefs and attitudes towards preventative behaviours. They should provide travel health advice by alternative media, such a pamphlets, which permit the tourist to scrutinise the travel health advice when there are less obstacles and impediments, and at their own pace.

5.3.2 The Extent of Travel Health Advice

The primary objective of travel health advice is to prevent health problems before they occur. There were a number of important factors that the travel health advisers in this research ignored when trying to meet their objective and persuade the participating tourists to practise preventative travel health behaviours. They included the extent of the arguments they were presenting; the extent to which the tourists' prior knowledge and experience affected their motivation and the extent to which tourists' desire to relax and have a good time affected the persuasiveness of the advice.

According to the Ajzen and Fishbeins' (1980) theory of reasoned action travel health advice needs to be presented in such a way that it will either persuade the tourists' 'base' beliefs, the strength of attitude values, or introduce 'new' travel health beliefs, or attitude values into the tourists' belief system. We have already stated above, that change via persuasive communications such as travel health advice, is based on careful scrutiny by the tourists of the positive and negative arguments associated with the advocated travel health behaviour. The strength of the argument, the complexity of the advice, the repetition of the argument and the medium, written or verbal, used to impart the advice all influenced the success of this kind of persuasion according to Ajzen (1992).

In order for travel health advice to be persuasive the arguments presented by the travel health adviser must be strong enough to overcome pre-existing 'base' beliefs and attitudes like the tourists' desire to relax and have a good time. Some of the travel health advice provided to the tourists tried to add value to attitudes that they already had or tried to convince them of something they already believed.

One of the factors travel health advisers needed to consider was whether the advice they gave was one-sided or two-sided. Persuasive travel health

advice must contain factual information and arguments that could be used to support the negative side of the argument. When the travel health adviser has presented the negative arguments, and discussed their inherent value, they then have the opportunity to refute those arguments. Of course the travel health adviser also discusses the positive arguments and the values of the preventative travel health behaviour. The tourists are then able to compare the inherent values in all the alternatives and choose the one with the strongest value. A one-sided argument, where only the positive arguments and values are extolled, will not allow the tourists to scrutinise the argument sufficiently to prompt reasoned action.

Of course there was not the opportunity for the travel health adviser to provide a two-sided argument in the travel health advice when tourists like Stella only manage "*a quick 10 minute chat*". As tourists might need vaccinations, or trials on anti-malarials, the pre-travel consultation should take place four or six weeks before the tourists' departure and multiple visits may be required according to Dardick (1992). Specialist travel health advisers allow between 30 and 60 minutes for appointments so that they can adequately cover the arguments for and against the travel health advice they are giving so that the tourists can make a reasoned decision on how to behave. General practitioners are often limited to their normal 15 minute travel health consultation, even less if they squeeze in tourists like Stella. This does not permit them to extend the advice to include a discussion of its inherent values.

The pre-travel health advice given to tourists needs to extend beyond the traditional focus on immunisation and medication to consider personal, behavioural, sexual, seasonal and geographic factors (Porter, Stanwell-Smith and Lea, 1992). Discussion of the positive and negative arguments, with their associated value strengths, would make the process of providing travel health very complex indeed. That may be why Leggatt, Heydon and Menon (1998) found that only half of the general practitioners they asked extended their travel health advice to include personal safety, health and travel insurance, and finding medical assistance abroad.

In order to develop extensive travel health advice from the vast amount of information available, Kodkani, Jenkins and Hatz (1999) believed it was essential for travel health advisers to utilise all of the travel health resources available to them. A study by Leggat, Heydon and Menon (2000) into travel health resources found that only 23% of those surveyed indicated that they extended their travel health expertise by "always" using travel health resources in their practise of travel medicine. Half of the participants indicated that they "usually" used these resources and a further 27% indicated that they used the resources "sometimes". There were 1% of general practitioners that did not use any resources at all when advising travellers on travel health. When Sarah consulted a medical practitioner with whom she worked, he extended his resources and "*looked up their bible*" but did not inquire about her personal, behavioural, sexual 'base' beliefs or attitudes. On that basis he advised her that she "*would not need anything*" in the way of preventative travel health advice.

Cohen (1996) believed that specialist travel health advisers had more ready access to travel health resources and that their emphasis was firmly on providing extensive, thoroughly scrutinised travel health advice. However, some information and advice may still not be given, particularly when they were busy. As Hill found in 1996, only 39% of travel clinics worldwide routinely extended their travel health advice to cover the arguments for health and travel insurance.

Being repeatedly exposed to travel health advice is supposed to increase the persuasiveness of the arguments on the tourists' behaviour. The method of enabling repeated exposure to travel health advice used by some of the travel health advisers in this research was to issue pamphlets. 'Travel Safe' campaign brochures, concerning sexual health practises, were included in each tourist's travel papers at the time of ticketing. Contrary to the research by Dougal (1993), where 50% of Australian tourists were aware of the 'Travel Safe' campaign, none of the tourists participating in this research recalled that they had received this travel health advice. Ruff (1993)

suggested that the failure of this form of travel health advice to extend any influence might have been due to the travel agent's reluctance to draw attention to the sensitive issue of 'safe sex'.

At the conclusion of the pre-travel interview all of the participants were given travel health pamphlets covering the major travel health concerns (refer to Appendix: E). The aim of giving these pamphlets to the tourists was to extend their travel health resources to the same 'base' level. Stacey and Jennifer used the pamphlets, as soon as they were given to them, as a prompt to clarify their beliefs about Human Immunodeficiency Virus transmission. Other than that, the other participants reported that they had not used them in any way to extend their travel health beliefs or attitudes.

As we have discussed persuasive travel health advice involves more than the tourists simply going along with a piece of advice just because it has been handed to them as a peripheral prompt. It requires the tourists to evaluate the inherent value of the advice according to the extent of the positive and negative arguments put to them. It is only after extensive scrutiny that the tourists can hope to behave reasonably.

5.3.3 The Relevance of Travel Health Advice

Related to the issue of the persuasiveness of travel health advice is the relevance of the advice to the tourists receiving it. The advice may be strong in the sense that it generates few negative arguments and many positive arguments, but if it addresses an issue that is not directly relevant to the tourists receiving it, it will fail to persuade them to adopt desired behaviour. This point is often is not appreciated sufficiently by travel health advisers.

When the personal relevance of the travel health advice was high the tourists were motivated to scrutinise the advice and integrate it into their 'base' beliefs and attitudes. If the tourists were to overcome their strong 'base' hope to relax and have a good time the personal relevance of the advice would have to be extolled. When the relevance of the advice is

uncertain and the tourists must decide whether of not to devote effort to scrutinising the advice, their current motivation or peripheral obstacles or impediments may determine whether they engage in the reasoning required for the advice to be persuasive.

Unfortunately, very few travel health advisers identify the travel health beliefs and attitudes that are relevant to the tourists prior to developing travel health advice. As discussed earlier the simple country by country formula used to advise Jennifer, and the fact that Sarah's adviser simply "*looked up their bible,*" failed to take into consideration the relevant compounding factors. Personal, behavioural, sexual and seasonal factors determined the extent of the travel health advice both needed.

Much of the travel health advice given to the tourists travelling to South East Asia focused on the prescription of medications and vaccines. Dawood (1993) found that the prescription of medications and vaccines was often the primary, if not the only, concern of general practitioners when advising tourists during pre- travel consultations. While these are important considerations, advice regarding the common health concerns of trauma, traveller's diarrhoea, fever and sexually transmitted diseases would have been more relevant to the tourists participating in this research.

Sarah was the only participant to avoid vaccination or being prescribed medication. This was in line with Dawood's (1993) finding that only 15% of tourists avoided vaccinations when they sought pre-travel health advice. The advice Sarah was given considered the relevant geographic factors and her immunisation status from previous travels.

Veronique had the meningococcal meningitis vaccination even though it was deemed by the Traveller's Medical and Vaccination Centre (1995) to be irrelevant for most tourists. The vaccine was relevant in Veronique's case because she was backpacking through Bangladesh and was planning to stay with Bangladeshi families in their own homes. Meningococcal meningitis is transmitted via droplet infection or by direct person to person contact

(Commonwealth Serum Laboratories, 1995). Veronique had also been given the option of a Rabies vaccine. Rabies vaccine is not usually relevant for most tourists according to Ruff (1995). It is more important that they practise preventative behaviours such as avoiding bites, licks and scratches. It is also important that they receive prompt medical attention and advice on post-exposure treatment as once symptoms develop rabies is always fatal.

Wendy was the only participant who reported that she was given the immunisation against hepatitis A. Phoebe, Sarah, Stella and Stacey had previously been vaccinated against hepatitis A. Jennifer and Rachel did not recognise the relevance of having a hepatitis A vaccine. As non-immunised tourists they had a 1:300 chance of developing hepatitis A because they were both staying in five star accommodations. If they had been staying in budget or backpacker accommodation, the risk would have been as high as 1:50 according to Yung (1994).

To protect themselves against typhoid, a disease that is transmitted in a similar fashion to hepatitis A, Veronique, Phoebe and Wendy took the oral typhoid vaccine before this holiday. Rachel, Sarah, Stacey and Stella had been previously immunised against typhoid. Jennifer had not been given the opportunity to consider the relevance of typhoid vaccination.
None of the participants recalled being advised about the limitations of typhoid vaccination and the subsequent need to adhere to food and water precautions.

Jennifer and Stacey were the only participants in this research for whom special travel related vaccinations were not relevant according to Yung (1994). The general practitioners they consulted for advice must not have been aware that as tourists on holiday to Kuta Beach who were staying and eating in high standard accommodation and restaurants they did not require special vaccinations. The travel health advisers did need to check that they were up to date with their routine primary immunisations such as adult diphtheria and tetanus, poliomyelitis and measles, mumps and rubella.

Stella was the only tourist who reported being previously vaccinated against measles, mumps and rubella. Phoebe was the only one to be given the vaccine and was asked about her allergies, as the vaccine cannot be given to people who have an allergy to eggs. Measles are endemic in South East Asia and Australian adults may have missed out on receiving the childhood vaccine as it was not introduced until 1970 (Fairfield Hospital Travel Clinic, 1994b). Because they were not immunised Jennifer, Rachel, Sarah, Stacey, Veronique and Wendy had a 99.9% chance of contracting the illness if exposed to the disease, according to the Royal College of Nursing (1997).

The adult diphtheria and tetanus vaccine was the relevant vaccine for adult tourists according to the Centers for Disease Control and Prevention (1997a). Jennifer, Stella and Wendy were all advised that the adult diphtheria and tetanus booster was relevant in maintaining their immunity because more than five years had elapsed since their previous vaccination. Phoebe received an adult diphtheria and tetanus booster prior to this holiday despite having had a booster vaccine four years previously. The Fairfield Hospital Travel Health Clinic (1994a) suggested that it would have been more relevant to educate the tourists about how avoid contracting tetanus and diphtheria through practising good wound care on cuts, burns and penetrating wounds.

Phoebe was also given an unnecessary booster of the oral polio vaccine. Only one booster of either the inactivated or attenuated polio vaccine should be given during the adult years and she had the polio vaccine four years previously. An inquiry from the travel health specialist into whether Phoebe was pregnant or planning on a pregnancy would have been relevant. The Centers for Disease Control and Prevention (2000d) does not recommend the booster in this circumstance because of the risk of birth defects. Despite Phoebe's experience, Townsend (1998) suggested that specialist travel health advisers were seen by 68% of tourists to provide the most relevant travel health advice.

The travel health specialist who advised Phoebe about malaria prevention was the only one, according to the participants' reports, who recognised the relevance of informing the tourists that every fever experienced while travelling in, or upon returning home from, South East Asia should be regarded as malaria until proven otherwise according to (Conlon, 1995).

As discussed previously Yung (1994) suggested that Jennifer and Stacey did not require malaria prophylaxis because they were staying in Kuta Beach. Their travel health advisers did not consider the relevance of their holiday destination when advising them of the need for malaria prophylaxis. The fact that Phoebe and Wendy were travelling to the delta region of Vietnam was the most relevant factor in deciding to prescribe them doxycycline as an antimalarial. Their use of doxycycline however exposed them to other risks. They were aware of the photosensitivity which resulted from its use but had not been advised that they would need to revise their contraception as doxycycline may cause the oral contraceptive to be less affective according to McConnell (1998).

Despite the availability of travel health resources to advisers several studies have raised concerns about the relevance of travel health advice provided to tourists. These concerns range from irrelevant malaria and vaccination advice (Townsend, 1998) to irrelevant traveller's diarrhoea prevention strategies being given to tourists (McIntosh, Reed, & Power, 1997). These findings may have been affected by the limited opportunities available for training in travel health. The opportunities that are available are usually provided by drug companies with a bias towards the prescription of medication and vaccines and a dearth of advice on other health measures.

When Wendy sought travel health advice on traveller' s diarrhoea, from two general practitioners and a pharmacist, she was prescribed a treatment dose of oftinidazole (Fasigyn M) but had not had it dispensed. She was not convinced of its value and believed that her behaviour would not alter her chances of suffering traveller's diarrhoea anyway. In a study by Kodkani, Jenkins and Hatz in 1999 all of the pharmacists recommended anti-

diarrhoeal medication like Fasigyn M, but only 59% believed that increase in fluid intake was relevant when treating traveller's diarrhoea. The most relevant treatment for traveller's diarrhoea was the replacement of fluids and salts according to the Centers for Disease Control and Prevention (2000j).

After Veronique received advice concerning the need for food and water precautions, she decided she would treat her water with iodine. She thought that she would be safe if she added a few "*drops of iodine in one litre of water and letting it stand for half an hour.*" While chemical disinfection of water can be achieved with iodine, the degree of contamination of the water is the most relevant factor in achieving disinfection, not the amount of iodine added or the time that it is left to stand (Traveller's Medical and Vaccination Centre, 1995).

To be successful travel health advice has to be considered personally relevant so that the tourists might gain volitional control of their travel health intentions and behaviours. If the travel health is not directly relevant to the tourists receiving it, it will fail to persuade their travel health intentions and behaviours. This might explain Behrens, Steffen and Lookes' (1994) finding that more than half of the Australian tourists travelling overseas developed some illness or suffered an injury despite receiving travel health advice. It is only when tourists accept the value of 'new' beliefs and attitudes as relevant at a personal level that they are able to overcome potential obstacles, such as being swept away by a holiday romance, the affects of alcohol or other social pressures.

5.4 The Influence of Pre-Travel Intentions on Travel Health Behaviour

The theory of reasoned action (Ajzen & Fishbein, 1980) assumed that travel health behaviours are under volitional control. Therefore, the most immediate determinant of any given travel health behaviour was the tourists' intention to perform, or not to perform, that travel health behaviour. Considerable research reported by Wallace, Lord and Bond (1996)

demonstrated that, when properly measured, intentions are very accurate predictors of most social behaviours. Given the strong relationship between intentions and behaviours the primary concern of the theory of reasoned action has been the formation and change of intentions.

According to the framework suggested by Ajzen and Fishbeins' (1980) theory, the tourists'intentions were a function of two basic determinants, one personal in nature and the other reflecting the social pressures on the tourists. The personal factor was the relevance of the positive and negative arguments for preforming the behaviours in question; this factor is otherwise known as their attitudes toward the behaviours. The second determinant of the tourists' travel health intentions was the tourists' perceptions of the social pressures they faced to perform, or not perform, the travel health behaviours. In other words tourists intend to perform a behaviour when they have a positive attitude toward the behaviour and they believe that their friends and acquaintances think they should perform it.

Travel health advice designed to influence the tourists' travel health intentions, and thus their travel health behaviours, needs to be directed at one or more of the intentions determinants as set out above; the tourists' attitudes, social pressures and volitional control. Few empirical researches exist on the impact of intentions on travel health behaviours. Gehring, Widmer, Kleiber and Steffen found in their 1998 research that most of the studies that have been done have focused on the persuasiveness of AIDS prevention strategies. This could be related to the correlation between the advent of the AIDS epidemic and the recognition of travel health as a medical specialty.

One of the researches conducted by Mulhall et al. (1993) found that only 82% of the Australian tourists travelling to Thailand, in the hope of having sex, intended to use condoms with each encounter. There was no significant difference between the number of men and women who expressed this intention. None of the research participants acknowledged that 'safe sex' practises were relevant to their travel health behaviour as none of them

intended to have holiday romances. Most of them did however pack barrier protection '*just in case*'.

Eating offered the tourists another form of social interaction where they could have a good time. The tourists found that that the cultural mores, local rituals, fatigue of holiday activities and the hospitality they received greatly influenced their ability to follow through with their intended food and water precautions. The participants in this research are not alone in their failure to adhere to their intended food and water precautions. Ruff (1998) found that a group of Swiss tourists failed to adhere to their dietary intentions from the first day of their holiday, when 7% made dietary mistakes; at the end of the first week 80% had erred. By the end of their fortnight away, all of the tourists had been unable to sustain compliance.

During the post-travel interviews the tourists contemplated the gamble they had taken by not following through with their pre-travel intention to take the course of malaria prophylaxis as prescribed. They were unrepentant in their post-travel interviews about the fact that they had not taken their malaria prophylaxis as prescribed.

To be successful travel health advice has to provide the tourists with the opportunity to overcome obstacles that may impede the relationship between their intentions and behaviours. The 'new' belief and attitudes acquired from travel health advice must have such significant value that they support the 'new' intentions in controlling travel health behaviours. As we have discussed one of the biggest obstacles the tourists had when trying to follow through with their intended behaviour was their 'base' intention to relax and have a good time.

5.5 The Holiday Spirit

Although attitudes and social pressures both influenced the formation of the tourists' intentions, the relative importance of these two factors varied from behaviour to behaviour and from tourist to tourist according to Fishbein and Ajzen (1981). Thus, for some travel health behaviours and intentions, the attitudes were of greater value than the social pressures, while for other behaviours and intentions, social pressures dominated. Similarly, the intentions to perform travel health behaviours were predominantly under the control of attitudes for some tourists and predominantly under the control of social pressures for other tourists. Earlier in this discussion we covered the affect of the overwhelming value-strength of the tourists' attitude that they were holidaying in South East Asia to relax and have fun had on their beliefs, attitudes, intentions and behaviour. This desire is usually referred to in colloquial terms as getting into the 'holiday spirit'.

We have discussed the obstacles faced when travel health advisers try to change the tourists' behaviour by introducing 'new' beliefs, attitudes and intentions when the tourists' ability to reason is under the control of this holiday spirit. Similarly, if the tourists were being pressured by their friends and fellow travellers to adopt the behaviours, little was accomplished by trying to change the tourists' beliefs and attitudes toward adopting the behaviours.

South East Asia as an exotic holiday destination positively encouraged the tourists in their hope and desire to relax and have a good time. As one of the first researchers into Australians' travel health behaviours in South East Asia, Jill Rowbottom (1993) suggested, you could understand how easily the tourists best intentions regarding travel health, such as practising 'safe sex', preventing accidents and trauma, and taking malarial prophylaxis, were swayed or forgotten.

The dynamics of travelling with friends in such an environment appeared to inhibit Jennifer and Stacey's travel health intentions. Despite Jennifer's intention to have a holiday resembling a "*health spa week*" she did qualify it by adding that her attitude might change as "*anything could happen*" while she was on holiday in Bali. When she relaxed and joined a group of newly found friends at an Adventure Park pretty much everything did happen. She joined one of her new male friends on a slingshot ride. Her companion's "*amazing powers of persuasion*" overwhelmed all of Jennifer's beliefs, attitudes and intentions. The fact that he was affected by marijuana did not impede Jennifer' s belief in this stranger, or the value that she thought she would gain from this behaviour. As it turned out she screamed the whole time she was on the ride. Her attitude values must have changed midway through the ride as Stacey could hear her screaming "*I know I am going to die!*" Even so, she came off the ride exhilarated by the adventure.

Both Jennifer and Stacey ignored their pre-travel *intentions* when the same new male friend wanted them to travel with him to and from the Adventure Park. They only gave their road safety intentions a moment's thought. Jennifer and Stacey had said out loud that "*we are not getting on motorbikes*" but their adventurous holiday spirit found them on the back of motorbikes. Stacey recalled later that she did not believe she had done it. Upon reflection her attitude towards this new friend was that "*he was a maniac*". However, at the time neither his haste to get to the Adventure Park nor the fact that he was affected by marijuana, were significant obstacles to their getting on the back of a motorbike and going with him. Stacey reported that neither herself nor Jennifer wore protective clothing or helmets as passengers on these motorbikes. Jennifer obviously had not thought about the risk that a motorbike accident posed.

Krosnick and Petty (1995) suggested that the instability shown in Jennifer and Stacey's beliefs, attitudes and intentions might have been due to their age. In this instance, the cause of the inconsistency between their intentions' and actual behaviours was not directly attributable to age as Stacey was in the younger age group and Jennifer, a number of years older,

was in the older age group (refer to Table 3 p.57). Pugh and del Fante (1994) suggested that the carefree nature of their holiday spirit was the reason that trauma is often the tourists' least concern, especially when influenced by drugs or alcohol. The discussion of the findings in this research agrees with Pugh and del Fantes' findings, but would expand the affect of the holiday spirit to include the influence it had on all of the travel health areas of concern; trauma, diarrhoea, fever, vaccinations and sexually transmitted diseases.

Though Rachel was a much more experienced tourist in South East Asia than Jennifer and Stacey, she was still affected by the holiday spirit. Rachel had a positive attitude to her newly formed group of friends on her holiday tour. She valued their presence when she wanted to go to a night market in Kuala Lumpur. She was certainly at less risk than Sarah was, out on the same streets alone. As a part of a group, she went to areas of Kuala Lumpur that Sarah would never have considered going to alone.

The dynamics of being part of this group also influenced Rachel' s generosity when it came to sharing the medications she had been prescribed. When one of the tourists in her group suffered from a bout of diarrhoea Rachel's compassion changed the laissez faire attitude she had towards her own risk of contracting traveller's diarrhoea. She willingly shared her medication with them. Rachel had not been too concerned about this ailment on her own account and had decided that should would *"just eat rice"* to treat any bouts of vomiting or loose motions she might have. Her belief in this alternative remedy was not given a voice when the group as a whole had decided that combining medications was the way to go.

Stacey and Wendy were just as generous as Rachel was when it came to their attitude towards sharing medications with their new found friends. They did not appear to consider the risks of taking medications that were prescribed for somebody else. They had not considered the fact that pharmaceutical standards and restrictions vary considerably from one country to another.

Jennifer, Rachel, Stacey and Wendy all remodelled their travel health beliefs, attitudes and intentions to accommodate the pressures from their friends and fellow travellers. Bandura's (1991) research into social influence suggested that as the tourists' ability to reason had yielded to such social pressure thier 'new' behaviours would not persist in the absence of incentives. It was easy to see why the tourists' new friends and travelling companions had such an influence in remodelling their travel health beliefs, attitudes and intentions. When you consider that travel health advice needs to be personally relevant to the tourists their friends and travelling companions were the perfect models of travel health behaviour, as their beliefs, attitudes and intentions were likely to be similar in relevance to those of the tourists.

We have discussed the role of social pressures and the holiday spirit in the findings that the tourists in this research did not always behave in a manner which would lead to positive outcomes, even though they knew which was the most appropriate behaviours and had positive attitudes toward these behaviours. When coupled with their belief that they could learn from their mistakes they undoubtedly placed themselves at greater risk of suffering a travel related accident or illness. The tourists' travel health beliefs, attitudes and intentions were overwhelmed because the nature of South East Asia, as an exotic holiday destination, positively encouraged relaxation and social interaction; an important part of what makes a 'good holiday'.

5.6 The Conclusion

This research found that the tourists chose to holiday in South East Asia because it offered a novel, exotic holiday environment. It was the novelty of this exotic tropical holiday environment that placed the tourists at risk of travel related accidents and illnesses.

The tourists' hopes and desires for a holiday where they could relax and have a good time, by entering into the holiday spirit offered by South East Asia, impeded their ability to recognise the very real travel health risks they faced. As Robert Louis Stevenson found when exploring the exotic environment of Treasure Island, "*to travel hopefully is better than to arrive*".

The tourists' motivation to reflect upon the travel health advice they had received was impeded by the nature of South East Asia, as an exotic holiday destination, and their overwhelming 'base' desire to relax and have a good time. The quality of the travel health advice given to the tourists decreased the value they gave to their 'new' pre-travel travel health beliefs, attitudes and intentions particularly when engulfed by the exotic environment and holiday spirit offered by South East Asia.

The travel health advice received by the tourists had a marginal affect on their travel health behaviours because the source, extent and relevance of the advice was left wanting. The travel health advisers gave the tourists inaccurate information and inappropriate treatments. They did not take the time or effort to draw on the travel health resources available to them, with obvious results. The travel health advisers also lacked the communication skills to discuss the sensitive health issues that needed to be explored as part of giving relevant travel health advice to the tourists. The physical obstacles of the office environment, and time constraints on the consultation, also played a role in this.

The travel health advice followed the traditional line of focussing on the vaccinations and medications that the tourists required rather than attending to the more commonly faced health risks of trauma, traveller's diarrhoea, fever and sexually transmitted diseases. Both the travel health advisers and the tourists failed to appreciate that vaccinations are never 100% effective and are not available for the main areas of concern.

Even when given travel health advice some of the tourists' pre-travel intentions were to ignore the advice given as it required too much effort or did not correlate with their past experience. The experienced tourists participating in this research were found to be just as unlikely as the inexperienced tourists to follow through with their pre-travel health intentions in the face of the holiday spirit offered by South East Asia. The experienced tourists were more likely to reflect upon their beliefs and attitudes than the inexperienced tourists were. The inexperienced tourists went ahead and did what they desired while the experienced tourists thought about it before they did it anyway.

The tropical environment of South East Asia with its heat, humidity and the resulting lethargy played a role in the tourists ability to reason. The medications, such as malaria prophylaxis, also affected some of the tourists' neuropsychiatric functioning. Alcohol affected the tourists' ability to reason in the usual ways and the tropical environment and social pressures of South East Asia exaggerated the effect.

By the conclusion of this exploratory research we have found that the affect of travel health advice on travel health beliefs, attitudes, intentions and behaviours is a complex, and explicable process. We now know that the extent and nature of the tourists' ability to integrate the advice may be more important than the advice itself.

Ajzen and Fishbeins' assumption that tourists' travel health behaviours were under volitional control and would therefore reflect their beliefs, attitudes and intentions was tested sorely by the tourists participating in this research. From this research we found that attitudes towards travel health concerns were influenced in various ways, such as central versus peripheral routes, and that some attitudes were more accessible, stable and persuasive on behaviour than others. We also found that obstacles such as the weather or friendliness of the travel health adviser could impede the tourists intentions to behave in the way advised. It appeared that the overwhelming influence of the tourists' hopes to relax and have a good time, coupled with

their desire to make the most of the holiday spirit offered, needed to be explored further. When applied to the area of travel health, the framework offered by the theory of reasoned action needs to be expanded to facilitate a greater understanding of the psychology underpinning the affect of the holiday spirit on behaviour.

It could be suggested that if the tourists were to behave in the way advised, taking into account all of the preventative travel health behaviours required, the holiday would no longer be relaxing, fun or a good time. The tourists would find the experience hopeless and either not travel at all or throw caution to the wind in order to have a good time. In the end you can only provide the tourists with the best travel health advice available and hope that they find it reasonable. You cannot, however, save people from themselves.

5.7 Implications of this Research

Very little nursing research has been conducted into the impact of travel health advice on the tourist's intended and actual travel health behaviours. The research that has been done has come a long way from the traditional medical and scientific focus on the pathogenesis of travel related diseases but still has a long way to go. As the rapidly evolving specialty of travel health emerges there needs to be an even greater focus on exploring the 'how' and 'why' of travel health rather than just the traditional focus on the 'what' or 'when'. Nursing research methods would be particularly suited to this form of research where one wants to interpret health practises and cultural phenomena from the participants' point of view. The more that travel health advisers know about the factors influencing the tourists' decision to adopt or not adopt travel health behaviours and the psychology underpinning travel health beliefs, attitudes, intentions, the more likely they are to develop persuasive travel health advice.

The available travel health resources need to be expanded so that they cover travel health concerns beyond the pathogenesis and treatment of

diseases. Resources covering health concerns within the categories of trauma, traveller's diarrhoea, fever and sexually transmitted diseases need to have the same amount of attention given to them as vaccine preventable diseases have had.

Travel health advice should be developed so that the message can be delivered through various media, such as pamphlets or computer programs, not just verbally. These travel health resources need to be readily accessible to travel health advisers and they must be taught how to use them. The tourists need to have the advice readily available while on holiday so that they can use it as a prompt as needed or just have the opportunity to reflect upon the advice at their own pace.

This study highlights the difficulties in doing serious research on a topic concerning sensitive health behaviours. If this research were to be revisited there would be a need to employ multiple observers, multiple methods or multiple data. This would enable the research to take a broader focus and avoid the problems associated with only have one group of 'key informants' who also acted a 'gatekeepers'. A study into the travel health behaviours of Australian males in South East Asia could be used as a companion to the findings of this research. This research could be repeated with the same participants to further explore the affect of experience and belief that we learn from our mistakes on tourists' behaviour. The focus could also be expanded to involve other popular tourist destinations that attract tourists for different reasons. Further exploration of the complexities involved in the affect of entering into the holiday spirit on the tourists' behaviour is also warranted. If we want to provide tourists with the most relevant travel health advice there is a need to know what it is that defines the moment when the holiday spirit overwhelms reason.

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APPENDIX A

OCTOBER 1995

Travel Agency
Address

Mr Manager,

As a post graduate student in the department of Nursing at Victoria University of Technology I request your agency's assistance in accessing a sample of clients to participate in a study in the area of travel health; please refer to the attachment for details regarding the requirements of the sample.

This research is an integral part of my Master of Health Science Course and complements my professional practise working in the area of infectious diseases. This research is to be fully supervised by academics at Victoria University of Technology and has met the standards of the University's Human Research Ethics Committee.

Sixteen participants are required and travel agents at the travel agency have already indicated to me their willingness to approach clients regarding their participation in this study. I would need your agency to identify those tourists eligible for the study, to invite them to participate in the study by giving them a copy of the invitation attached and to take their names and contact numbers so that they may be approached by the researcher. Participants in this study will be approached on two occasions; once, for approximately one hour, prior to their departure on holiday and then again, for about the same length of time, upon their return.

Those clients eligible to participate in this study are those who are:

-Permanent residents of Australia

-Aged between 18 and 45 years

-Intending to stay in South East Asia for between one week and one month.

For the purpose of this research South East Asia includes:

Bangladesh	Lao People's Democratic Republic	
Brunei Darussalam	Malaysia	Singapore
Cambodia	Myanmar	Thailand
Indonesia	Philippines	Vietnam.

The sixteen participants will be approached between December 1995 and September 1996 for pre-travel and post-travel interviews.

The cooperation of yourself and your staff would be gratefully appreciated. Further information and a copy of the research proposal can be forwarded to you upon request.

Yours sincerely,

Julie Nunn.

APPENDIX B

INVITATION

As a tourist travelling to South East Asia you are invited to participate in a project which examines travel health concerns of Australians travelling to South East Asia. This project forms a part of my Masters of Nursing studies at Victoria University of Technology.

The project is concerned with your attitudes towards travel health, your knowledge and concerns regarding travel to South East Asia and your health behaviours while travelling there.

Through your participation in this project you will contribute to the development of better health services and educational programs for Australians travelling to South East Asia. At the pre-travel session you will receive basic travel health information and a list of travel health resource centres.

I request one hour of your time prior to your leaving for your holiday and a similar period of time after you return. The interviews can be negotiated for a time and a location most suitable to your self.

The pre-travel session will include a general discussion of your travel plans while on holiday in South East Asia. The post-travel session will be a general discussion of your holiday experiences. The interviews will be recorded on audiocassette. The findings of this project can be made available to you if you desire.

I will respect your anonymity at all times, protecting your real name, travel plans and any other identifying information. The data collected is confidential.Once you have agreed to these interviews please inform your travel agent at **********. You are free to withdraw from the project at any stage if you wish to do so. I thank you, in anticipation, for your generosity in making yourself available for interview.

Julie Nunn.

APPENDIX C

CONSENT FORM

I,.....

of.....

certify that I have the legal ability to give valid consent and that I am voluntarily giving my consent to participate in the research entitled:

"A study of Australian tourists' travel health intentions and behaviour while holidaying in South East Asia"

being conducted at Victoria University of Technology by:

Julie Nunn

I certify that I have the opportunity to have my questions answered and that I understand that I can withdraw from this research at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the confidentiality of the information I provide will be safeguarded.

Signed.....

Date:.....

APPENDIX D

DEMOGRAPHIC MAP

Pseudonym.....

Sex

Male..... Female.....

Age

18 – 30..... 31 – 45.....

Holiday Destination

South East Asia alone.....
South East Asia and other countries.....
Places visited.....
.....

Duration of Holiday

One week.....
8 – 14 days.....
15 – 21 days.....
Over 21 days.....

Time spent in South East Asia

Day 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28+

Travelling companions

Alone.....
Partner.....
Family.....
Friends.....

Accommodation

Hotel or resort only.....
Other.....

Eating Places

Hotels or restaurants only.....
Domestic outlets or roadside stalls.....

Health Advice

Sought.....
Not sought.....
Obtained previously.....

Source

Travel Agent.....
Medical Center.....
Acquaintances.....

Nature

Verbal only.....
Verbal and written.....

Mefloquine should not be used by certain individuals, particularly those with a history of serious psychiatric illness or neurological diseases such as epilepsy. The adult dose is one 250 mg tablet weekly. Mefloquine is not recommended for children less than 15 kg in weight.

C. DOXYCYCLINE (a tetracycline antibiotic)

Doxycycline, taken daily, is an alternative to mefloquine for short-term travellers to areas with chloroquine and Maloprim/Fansidar resistant falciparum malaria. This is the drug of choice in areas with multidrug-resistant malaria, such as parts of Thailand, Cambodia, Laos, Vietnam and Myanmar (Burma).

The adult dose is 100 mg daily which can begin 1-2 days prior to travel.

Side effects are generally not serious but include thrush, photosensitivity reaction (an increased tendency to sunburn) and gastrointestinal upsets. Doxycycline should not be used in pregnancy, breast feeding women or in children under 8 years.

D. MALOPRIM (dapsone and pyrimethamine) & FANSIDAR (sulfadoxine and pyrimethamine)

Maloprim and Fansidar are no longer recommended for prevention of malaria because of rare but serious side effects (particularly depression of the white blood cell count for Maloprim and severe skin rashes for Fansidar). Resistance to both drugs is increasingly widespread, and more effective alternative drugs are available. The presence of fever or severe sore throat while taking Maloprim requires urgent medical attention. Both drugs, if used, should be taken with chloroquine. Maloprim should never be used in a dose higher than 1 tablet per week.

E. PROGUANIL ('Paludrine')

This drug is not easily available in Australia. It is popular with European physicians.

Strains of P. falciparum resistant to proguanil are present in scattered foci in all endemic areas. Some strains of P. vivax are also resistant to this drug. It is moderately effective in East Africa, preferably as an adjunct (or an alternative) to chloroquine, but not in South East Asia or the Pacific. Proguanil is safe in pregnancy, young children and in long term use. The adult dose is 200 mg daily.

How is the choice made?

Since there is no drug that is completely safe or effective the decision to use a preventive drug and the choice of the drug must be made by weighing up the risk of malaria and the risk of the side effects of the drug. The choice is an individual one.

The two major considerations in the choice of malarial prophylaxis are the places to be visited and the risk of exposure to mosquitoes carrying the malarial parasites. That means we take into account the level of risk of the places to be visited (see above), the duration of stay, and the likelihood of being bitten. Other factors such as pregnancy, infancy, drug allergy would also indicate which drugs should not be used.

Different doctors may choose different antimalarial drugs. This is because a variety of combinations may be effective. What is clear is that travellers who don't take any antimalarials are at increased risk of severe, possibly fatal malaria compared with those who do.

How long should you take the medications?

Preventive drugs are generally commenced 1–2 weeks before departure to the endemic area, and continued for 4 weeks after leaving the malarious area.

PREGNANCY AND MALARIA

Pregnant women should avoid travelling to malarious areas because no preventive drug is completely effective, the disease tends to be more frequent and severe in pregnancy, and there is an increased risk of prematurity, abortion and stillbirth.

Proguanil and chloroquine are the only drugs which are without hazard to the foetus.

AFTER RETURNING HOME

Malaria may still occur after using antimalarial drugs, sometimes months or years after your trip. It is important that you seek prompt medical attention (within 48 hours) for fever, mention your travels and your concern about malaria to your doctor, and insist on a prompt blood smear examination.

MALARIA

APPENDIX E

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Fairfield Hospital Travel Health Information Line
0055 15676

Travel Health Clinic
Fairfield Hospital
Yarra Bend Road
Fairfield, Victoria
Phone: 280 2230

WHAT IS MALARIA?

Malaria is a potentially life-threatening infection prevalent in most of the tropics. It is a parasitic disease spread by the bite of Anopheles mosquitos. Around 300 million new cases of malaria occur annually, and about one million children die from this disease in Africa alone each year.

There are 4 species of the malaria parasite; the most common is called Plasmodium vivax and the most dangerous is Plasmodium falciparum. Vivax malaria is generally sensitive to chloroquine, but falciparum malaria is commonly resistant to this drug.

WHERE ARE THE MALARIOUS AREAS ?

The risks of contracting malaria vary greatly from country to country as well as in different areas within a country. Altitude and season are also important. Visitors to tropical Africa and the Melanesian region (Papua New Guinea, the Solomon islands, and Vanuatu) are at much greater risk than visitors to Latin America, North Africa, or South East Asia.

HOW CAN I PREVENT MALARIA?

You cannot depend on medications alone. The main aim is to prevent serious illness and death due to malaria — essentially all of which is due to the falciparum type. To achieve this you should adopt a 3 pronged approach:

- seek early treatment for possible malaria.
- minimise exposure to mosquitos.
- use preventive drugs.

1. Early treatment for malaria

To prevent death and severe disease from malaria the diagnosis needs to be made and treatment instituted early. You should recognise that any fever occurring when you are in or have been in a malarious area may be due to malaria. Unfortunately no preventive measure is 100% effective. If you have carefully avoided mosquito bites and taken preventive medications, the risk of malaria is markedly reduced, but not eliminated. Medical attention, including blood smear examination, should be sought within 48 hours of onset of fever, or earlier if you are severely ill.

The incubation period of malaria is at least 8 days, but it may be as long as a year or more. The principal symptoms are fever, malaise, headache, chills and sweats. Fever may be intermittent. Diarrhoea may be prominent. In severe cases. jaundice or coma may develop quickly. The symptoms vary considerably, but fever is virtually always present.

Since malaria can become life-threatening within a short time you should not delay seeking medical attention. Travellers who are likely to be more than 24 hours away from medical help, are often given one or more treatment courses of Fansidar (3 tablets for an adult), mefloquine (for adults, 2 tablets followed 6-8 hours later by another 2) or quinine (adult dose 600 mg three times a day for 7 days) to take with them.

Halofantrine, currently unavailable in Australia but available in some African and European countries, can also be used. The adult course is 3 doses of 500 mg (2 tablets), six hours apart (total dose 1500 mg).

Those taking mefloquine for prevention should avoid taking mefloquine and potentially also halofantrine for self-treatment.

Such emergency self-treatment may be life saving. Preventive drugs should be continued after treatment for malaria.

Cardinal rule: fever in someone in or from a malarious area should be regarded as malaria until proved otherwise. Seek medical attention including a blood smear test within 48 hours.

2. Measures to minimise mosquito bites

It is possible to reduce the risk of contracting malaria at least ten fold by consistent use of these measures, which also reduce the risk of the many other diseases transmitted by biting insects, such as dengue, encephalitis and filariasis.

- Sleep in properly-screened accommodation (this is generally the case with air conditioning) or under a mosquito net, preferably one impregnated with a synthetic pyrethroid insecticide such as permethrin.
- Avoid outdoor activities between dusk and dawn.
- Wear sufficiently thick long-sleeved clothing and long pants when out of doors after sunset.
- Use mosquito repellents on exposed skin; the most effective mosquito repellents contain DEET, eg. "Rid", "Muskol", "Apex Repel". Occasionally toxicity has occurred in children due to excessive use of DEET. Highly concentrated preparations (over 30-50%) are best avoided for children. For the few individuals who develop a rash with DEET, the best alternative is dimethyl phthalate (DMP).
- Use an insecticide aerosol, mosquito coils (although they may not last through the night) or an electrical vaporising mat containing a pyrethroid in your room.
- Avoid dark coloured clothing and strong scents such as perfume, cologne and after-shave, which tend to attract mosquitos.

3. Preventive drugs

A variety of drugs are used to prevent malaria. All have advantages and disadvantages.

A. CHLOROQUINE

Chloroquine has been the mainstay of malarial prevention for many years, but now has a much reduced role in the prevention of falciparum malaria because of widespread and increasing chloroquine resistance in many areas.

Minor side effects such as abdominal upset, headache, and blurred vision occur frequently. These can be minimised by taking the drug with or after food in the evening. Itching in dark skinned individuals is common. Chloroquine is safe in pregnancy and for young children, in whom a syrup can be used. The usual adult dose is 300 mg base once weekly.

B. MEFLOQUINE ('Lariam')

Mefloquine is highly effective as treatment and prevention against both vivax and falciparum malaria, including many strains resistant to other drugs.

Minor side effects, such as nausea, loose stools, and dizziness, tend to be transient and self-limited, occur no more frequently than with other antimalarials and often subside despite continued use.

Rare but severe neurological reactions have been reported; they include depression, and seizures. They have predominantly been associated with treatment rather than preventive doses. If severe side effects occur with any drug, it should be stopped and medical help sought.

- Poliomyelitis is a viral infection spread by contaminated food, which can damage the spinal cord causing paralysis.

Poliomyelitis remains a problem in many developing countries (especially in Africa and Asia). Outbreaks occasionally occur in industrialised countries. All travellers should be fully immunised against polio.

Immunity is gained after 3 doses, at least 4 weeks apart, of oral polio vaccine (Sabin) or injectable (Salk) vaccine, with a booster every 10 years.

Travellers who have never been vaccinated or are uncertain should receive a full course commencing a minimum of 6 weeks (and preferably 10 weeks) prior to departure.

For adults receiving polio immunisation for the first time, the injectable vaccine may be preferred.

Immunocompromised persons or their household contacts should not receive oral Sabin vaccine.

TETANUS AND DIPHTHERIA

- Tetanus is a potentially fatal illness consisting of severe muscle spasms and rigidity. It is caused by a toxin produced by a bacteria which grows well in dirty wounds.
- Tetanus occurs world-wide and is avoided by good wound care, and most importantly, by adequate immunisation.
- All travellers (and indeed everybody) should be immunised. This is usually done in infancy as part of the triple antigen immunisations given at 2, 4, 6 and 18 months of age. Boosters should be given at age 5,15 and thereafter every 10 years. Those undertaking injury-prone activities in remote areas should have received tetanus immunisation within the preceding 5 years.
- Persons who have never or partially been immunised should complete their immunisation.
- Diphtheria is still prevalent in developing countries, and the combined diphtheria- tetanus (ADT) vaccine should be given whenever tetanus boosters are due.

MENINGOCOCCAL MENINGITIS

- Meningococcal meningitis is an acute bacterial infection of the coverings of the brain. The disease is world-wide, and usually occurs in epidemics.
- The available vaccine covers types A and C, the types most commonly responsible for epidemics, and 2 minor strains.
- The vaccine course consists of a single 0.5 ml injection, and is associated with minimal adverse reactions.
- Duration of immunity is 3–5 years in those aged 4 years or older. The vaccine is less effective in young children. Those under 2 years can be given 2 doses 3 months apart; those between 2 and 4 years should be given a second dose at age 4.
- The vaccine is recommended for travellers to India, Nepal, Persian Gulf countries, Egypt and all Sub-Saharan countries apart from South Africa. Outbreaks also occur in other countries from time to time.
- Immunisation within the preceding 2 years is required for pilgrims to Mecca, Saudi Arabia, for the annual Haj.

JAPANESE ENCEPHALITIS

- Japanese encephalitis is a serious viral encephalitis (inflammation of the brain) which is present throughout most of East and SE Asia, from eastern Siberia in the north to Indonesia in the south, and from Japan, Okinawa and Guam in the east to Pakistan in the west. The virus is transmitted by mosquito bites, and transmission is highest during the rainy season in tropical areas (June to September).
- Three doses of vaccine are given on days 0,7 and 28, with a single booster at 12–18 months and then every 4 years if the risk of exposure continues. Allergic reactions to the vaccine (usually consisting of skin rashes) occur in approximately 1 per 500–1000 recipients.
- Protective efficacy is high, and some limited protection against dengue, a related but more common mosquito-borne infection, also occurs.
- Although widely used in many Asian countries, JE vaccine is not generally available in Australia. It is available only to armed forces personnel and at Fairfield Hospital. A course of vaccine started at Fairfield can be completed elsewhere. The vaccine is recommended for those of all ages planning to travel or live in Asia for 12 months or more.

IMMUNISATIONS FOR THE TRAVELLER I

Yellow Fever
Cholera
Typhoid
Polio
Tetanus/Diphtheria
Meningococcal meningitis
Japanese encephalitis

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Fairfield Hospital Travel Health Information Line
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Travel Health Clinic
Fairfield Hospital
Yarra Bend Road
Fairfield, Victoria
Phone: 280 2230

January 1994

YELLOW FEVER

- Yellow fever is a serious disease caused by a virus which is transmitted by mosquito bites. It received its name because jaundice is a prominent sign. Other features of the disease include chills, fever, headache and gastrointestinal bleeding.
- Yellow fever is found in parts of tropical America and Africa, but has never appeared in Asia.
- The vaccine is a live attenuated strain of yellow fever virus. The vaccine is extremely safe and effective, is given as a single subcutaneous dose, and confers immunity for at least 10 years.
- Reactions are rare unless the recipient is allergic to eggs (the vaccine is made from virus grown in chick embryos). Because young infants are at increased risk of reactions to the vaccine, it should generally not be given to infants under 1 year of age.
- Vaccine is only administered in approved Yellow Fever Vaccination Centres including Fairfield Hospital.
- The vaccine should be given a minimum of 10 days before entry into an "at risk" area.
- Yellow fever and cholera vaccines should be given 3 or more weeks apart.
- An international certificate of vaccination against yellow fever is valid for 10 years, beginning 10 days after vaccination.
- Persons living or travelling in endemic areas should generally receive the vaccine, which is a legal requirement for entry into many countries.

CHOLERA

- Cholera is a bacterial infection which causes very severe watery diarrhoea often leading to marked dehydration and, at times, death.
- The organism spreads via contaminated water (including ice) or food, especially shellfish. Person to person transmission is rare. Cholera is widespread in developing countries. In 1993, a new strain of cholera was discovered in Bangladesh, India and Thailand, against which the current vaccine is ineffective.
- Cholera is rare in travellers.
- The present cholera vaccine consists of killed bacteria, gives only about 50% protection for 3–6 months, and does not reduce transmission of the disease.
- Side-effects of vaccination are common and include redness and soreness at the injection site, and a mild flu-like illness for 1–2 days.
- Two doses are given 2–4 weeks apart, with a booster every 6 months.
- The vaccine is not recommended for children under 6 months.
- A certificate of cholera vaccination is no longer officially required by any country, but is occasionally required by some border guards in East Africa. To avoid such problems, a certificate of cholera immunisation may be useful for overland travellers in Africa.
- Vaccination may be reasonable for persons in highly endemic areas who are far from medical care and who have impaired gastric defences. However, in general, cholera vaccine is no longer re-commended due to its poor efficacy and short duration of action.
- Careful attention to eating and drinking safely is the best way to avoid cholera. Rehydration with appropriate fluids and salts is important for severe watery diarrhoea. If close contact with cholera occurs, a dose of doxycycline (300 mg) is likely to prevent diarrhoea.

TYPHOID

- Typhoid is a bacterial infection from the Salmonella group. It causes blood infection with high fever and occasionally diarrhoea, and may be fatal.
- The organism depends on a human source of infection and spreads via contaminated food or water (including ice).
- Typhoid is common throughout Asia, Africa, the Middle East and South America, and immunisation against this infection is recommended for travellers visiting these areas, particularly for those staying more than 2 weeks in areas of poor or uncertain sanitation and hygiene. Typhoid vaccine is not necessary for travellers to Western Europe, North America, or Japan.
- There are 3 different typhoid vaccines. All are about 79% effective:

1. Oral Typhoid Vaccine (Typh-Vax [Oral]):

- This vaccine is generally preferred to the injectable vaccine as it is oral, has fewer side effects and provides similar protection for a longer period.
- In Australia, generally 3 doses of this live attenuated vaccine are given. However, Fairfield's travel health physicians recommend 4 doses (one each on days 1, 3, 5 and 7) as evidence shows that 4 doses, as used in other countries, offer better protection than 3.
- The vaccine should be refrigerated but not frozen, and taken with cool liquid approximately one hour before a meal.
- It should not be given to patients with immune defects due to disease or drug therapy, or active inflammatory bowel disease.
- The vaccine should not be taken at the same time as antibiotics.
- Side effects are quite infrequent even among children 1-5 years of age.
- The vaccine can be given to young children if they can swallow the capsules (generally over 3 or 4). In children too young to swallow the capsules whole, several options exist:
  – on an empty stomach, first giving at least half a glass of water in which a Ural sachet has been dissolved, followed by the contents of an opened capsule in jam or honey;
  – suspending the contents of an opened capsule in a glass of cool, low-fat milk in which a quarter of a teaspoon of baking soda (0.8 g sodium bicarbonate) has been dissolved;
  – injectable vaccine (particularly intradermally)
- The protection conferred by oral typhoid vaccine has been shown to persist for at least 7 years.

2. Injectable Heat-killed Typhoid vaccine:

- Two doses at least 2 and preferably 4-6 weeks apart with a booster injection every 3 years.
- Fever (20-25%), headache, malaise, pain and swelling (40-50%) at the injection site are unfortunately frequent side effects.
- Giving one-tenth the usual dose as an intradermal injection is effective while reducing the incidence of side effects.

3. Vi Injectable typhoid vaccine:

- This more purified vaccine is expected to be available in Australia in early 1994. A single dose confers 3 years protection, and side effects are minimal. It should largely replaced the heated-killed vaccine. Unfortunately it may be less effective in children under 5, and particularly under 2 years of age.

Because of the long incubation period of the disease, **post-exposure immunisation** (given after exposure to a possibly rabid animal) is highly effective if given soon after the exposure - preferably within 48 hours. It is still worthwhile, however, if given after this time, and should consist of one dose of rabies immune globulin and 5 doses of vaccine (days 0, 3, 7, 14, and 30).

- Appropriate first aid for an animal bite is also important, and should consist of immediate washing of the wound with soap and water, followed by the application of an antiseptic, such as an iodine preparation (eg, Betadine).

MEASLES

- Since the introduction of measles vaccine in 1970/71 in Australia, many adults have missed the disease as well as the vaccine; they are highly susceptible to infection.
- The disease is still common in Asia and Africa. Non-immune travellers are at risk and are advised to be immunised.
- The vaccine is a live attenuated viral vaccine given by injection. The MMR Vaccine recommended comprises measles, mumps and rubella vaccines.
- A history of measles, rubella and/or mumps illness may be unreliable; a second MMR dose provides more effective protection than a single dose, and is now recommended in Australia.
- Like all live viral vaccines, it should not be given to those with reduced immunity, whether due to disease or medication.
- The vaccine can either be given on the same day as other live virus vaccines (yellow fever) or else they should ideally (but not necessarily) be separated by 3 or more weeks.

RUBELLA

- All women of child bearing age should be immune to rubella.
- A single dose of rubella vaccine is recommended for all susceptible travellers, particularly females. For those susceptible to measles, mumps and/or rubella or uncertain if they have had these infections the MMR vaccine should be given. No adverse effects occur with this vaccine in those who have previously had measles, mumps or rubella illness or vaccination.

INFLUENZA AND PNEUMOCOCCAL INFECTION

- About 10% of travellers acquire respiratory infections during their travels. The risk of exposure to influenza and other viral respiratory infections during overseas travel varies, depending on season and destination. In the tropics, influenza can occur throughout the year. In the northern hemisphere the risk is greatest during November to March.
- Apart from ruining one's trip influenza can be quite a severe illness, particularly in the elderly and those with heart or lung conditions. Protection against a secondary bacterial pneumonia due to pneumococcus is warranted.
- Influenza vaccine is an inactivated vaccine produced in eggs. It should not be given to those who are severely allergic to eggs.
- Pneumococcal vaccine contains purified capsular material. It is safe, and is given in a single dose.
- Both vaccines are recommended for those over 65 years of age, or with chronic medical problems, particularly heart or lung diseases.

TUBERCULOSIS

- Tuberculosis is common in the developing world, but is not a major hazard for the short-term traveller. The infection is transmitted by air, and usually prolonged exposure to a person with untreated tuberculosis is required for transmission to occur.
- For health workers and people (especially children) intending to live or work in high risk countries for prolonged periods of time, immunisation with BCG is advisable for those with a negative tuberculin skin test. This should preferably be given at least three months before departure.
- Revaccination is not necessary for those previously vaccinated against tuberculosis.
- As an alternative, the traveller to developing countries can have a tuberculin skin test before and 1 month after return to document whether a positive skin test has developed.

Travel provides a useful opportunity to update all recommended immunisations.

IMMUNISATIONS FOR THE TRAVELLER II

Hepatitis
Rabies
Measles
Rubella
Influenza
Pneumococcal infection
Tuberculosis

Fairfield Hospital Travel Health Information Line
0055 15676

Travel Health Clinic
Fairfield Hospital
Yarra Bend Road
Fairfield, Victoria
Phone: 280 2230

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HEPATITIS

- Hepatitis can be caused by a number of different viruses which infect the liver, often producing jaundice (yellowing of the skin and whites of the eyes). The 2 commonest causes of viral hepatitis are hepatitis A and hepatitis B. Immunisation against both of these is available.

- **Hepatitis A** is commonly acquired by travellers to Asia, Africa, South America and the Middle East. It is the commonest vaccine-preventable disease among travellers. It is usually acquired from contaminated food or water (or ice). The virus is passed in the faeces of an infected person. Good personal hygiene, particularly handwashing after using the toilet and before preparing food, helps to stop spread to travelling companions.
- In most developing countries, virtually 100% of persons have been infected with hepatitis A by adolescence. In industrialised countries, the likelihood of previous infection is less, but increases with age.
- Although persons with a personal or family history of jaundice or hepatitis may well have had hepatitis A, many persons who have had the disease and are thereby immune for life will be unaware of this fact. This is because infection occurs most often in childhood, when it does not usually result in any noticeable illness. Thus the only way to be sure of one's immune status to hepatitis A is via a blood test to check for antibodies, and this is useful for frequent or long term travellers. In the absence of a blood test, Australians under the age of 40 with no history of hepatitis are likely to be susceptible.
- Protection against hepatitis A can be achieved either by active (vaccine) or passive (immune globulin) immunisation.
- A safe and effective **vaccine against hepatitis A** was made available in Australia in July 1993. Although expensive, it is generally preferred to immune globulin as it provides a higher level of protection for an extended period (probably at least 10 years) and avoids theoretical concerns over injections of blood products. It is particularly recommended for frequent or long-term travellers to developing countries. A course consists of 3 doses, with the second generally 2–4 weeks after the first, and a third 6–12 months later. Two doses provide excellent protection for up to 1 year.
- An injection of **immune (or gamma) globulin** provides short lived protection. Immune globulin contains antibodies to hepatitis A virus and is prepared from donated blood. It does not transmit HIV or any other known kind of infection, and should be given just before departure. The maximum duration of protection from one dose is 6 months.
- It should be given at least 2 weeks after or at least 3 months before measles, mumps and/or rubella immunisation.
- It is not recommended that injections of immune globulin be obtained in developing countries unless it can be confirmed that the immune globulin has been prepared by the Cohn-Oncley cold ethanol fractionation method.

- **Hepatitis B** is spread like HIV (the virus that causes AIDS) by blood and other body fluids, but much more effectively. It can be transmitted sexually, by unsterile injection equipment, by cuts and sores and close physical contact. Some of those infected become carriers of the virus and are at risk of long-term complications. This is especially true of infections occurring in early childhood.
- Those planning to spend 6 months or more in areas where the disease is common (such as Asia, Sub-Saharan Africa and the Pacific islands) should be immunised, especially if close contact with local people is anticipated. Those travelling for shorter periods who are likely to have sexual, blood or other close physical contacts, or for whom hepatitis B vaccine is recommended irrespective of their overseas travel (eg. health care and emergency service personnel, homosexual men) should also consider immunisation. It is particularly important to immunise children at risk.
- Hepatitis B immunisation consists of 3 injections, ideally at 0, 1 and 6 months, but there is considerable leeway in the timing of the third dose. Anytime more than 4 weeks after the second dose is acceptable.
- The vaccine is highly effective and safe, and appears to be effective for at least 8–10 years.
- Pregnancy is not a contraindication.

- There are other types of viral hepatitis such as hepatitis E. This form of hepatitis is particularly dangerous in pregnant women. It is spread in the same way as hepatitis A, by contaminated food and water. Unfortunately no immunisation is available against this form of hepatitis. Hepatitis C is spread like hepatitis B by blood and body fluids.

RABIES

- Rabies is primarily a viral disease of animals, but may be transmitted to humans through bites from infected animals (usually dogs, cats or monkeys) whose saliva contains the virus. Licks or scratches of moist body surfaces or non-intact skin may also constitute an exposure requiring treatment.
- Rabies remains a serious problem in all continents except Australia and Antarctica. Japan, Malaysia, Singapore, Ireland, Sweden, United Kingdom, New Zealand, the Pacific islands and some other countries are also rabies free.
- Travellers should assume that all mammals may be rabid and therefore animals should not be patted, played with, fed or picked up. Particular care should be taken in temples in Asia where attacks by monkeys may be common and unexpected. Travellers suffering bites or scratches from possibly infected animals should seek medical attention immediately as established rabies is fatal.
- The vaccine, human diploid cell rabies vaccine (HDCV), is an inactivated virus vaccine, and is very safe and effective.

- **Pre-exposure immunisation** against rabies is expensive. It should be offered to workers at occupational risk, including livestock and wildlife workers, some laboratory workers and vets. Those living or travelling for extended periods where the vaccine, if needed, would be difficult to obtain, should also consider immunisation.
- Pre-exposure immunisation consists of 3 doses given on days 0, 7 and 28. The vaccine can be given either as 1.0 ml intramuscular dose, or a 0.1 ml intradermal dose. Boosters are required every 2 years for continued exposure in endemic areas.

APPENDIX F

Your Family Medical Practitioner

Travel Agent

Address

Telephone Number

Travel Health Information Line

0055 15676

Fairfield Hospital Travel Clinic

Fairfield Hospital

Yarra Bend Road, Fairfield, Victoria

03 9280 2222

Travellers' Medical and Vaccination Centre

Level 2/ 393 Little Bourke Street, Melbourne, Victoria

03 9602 5788

APPENDIX G

Memorandum

TO: Ms Val MacKinnon
Department of Nursing

CC: Ms Julie Nunn

FROM: Dr Beverley Blaskett
Secretary, Human Research Ethics Committee

DATE: 26 November 1996

SUBJECT: **Extension for application HRETH 103/95**

The Human Research Ethics Committee met on 21 November 1996 and considered your application for an extension of approval related to the project:

HRETH 103/95: A Study of Australian Tourists' Travel Health Intentions and Behaviour while Holidaying in South East Asia

The Committee resolved to approve an extension for HRETH 103/95 (HREC 96/231) to 31 July 1997.

If you have any further queries please do not hesitate to contact me on 4710.

Best wishes with your project,

Beverley Blaskett

LIST OF RELEVANT PRESENTATIONS

AUSTRALASIAN SOCIETY FOR HIV MEDICINE 8th ANNUAL CONFERENCE, Sydney 14 – 17 November 1996

Presentation of 'HIV Plasma Viral Load Amongst A Cohort Of Patients In Melbourne 1995 to 1996' (Research Assistant).

SECOND NURSING PRACTICE CONFERENCE, The University of Adelaide and Royal Adelaide Hospital, Adelaide 2 – 3 December 1996

Presentation of 'Australian Tourists' Travel Health Intentions and Behaviour While Travelling in South East Asia'.

SIXTH ANNUAL RESEARCH CONFERENCE, Victoria University of Technology, Sunbury 29 October 1998

Presentation of 'Australian Tourists' Travel Health Intentions and Behaviour While Travelling in South East Asia'.