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Nurse-led Pre-travel Health Consultations: Evaluating Current Practice and Developing a New Model

by

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A thesis submitted in partial fulfilment of the requirements for the
degree of Doctor of Philosophy in Health Sciences

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Declaration

I declare that this thesis is my own work and has not been submitted for a degree at any other university.

Signature of Adrienne Willcox:

Date:

Abstract

This study explores the pre-travel consultation between nurses and people who plan to travel abroad from the UK. Travel health services have developed *ad hoc* in response to rising public demand, and are mainly nurse-led in UK general practice. There is little research evidence to describe or evaluate pre-travel healthcare provision.

Using a mainly qualitative *bricolage* design of six methods, the research traces the 'journey' of health recommendations made to travellers. Starting with guidance documents produced by experts, it then tracks the fulfilment of these recommendations through consultations conducted by nurses and captures the ways in which travellers use or discard the recommendations while travelling. It explores the clinical reasoning behind activities in pre-travel consultations, and generates ideas for practice development.

The key findings are that pre-travel healthcare is medicine-centric and issues of time, organisation, and the model adopted by nurses affects the quality of consultations. Two styles of consultation were identified: the Kitchen Sink style was comprehensive and verbose; the Medical and Minimal style focused on vaccinations. Travellers recalled or used very little of what was imparted during their consultations, but far from being 'blank slates', travellers usually managed their health appropriately and had far more knowledge than nurses recognised. The thesis offers conceptual insights to the pre-travel consultation which relate to patient safety, quality and the legal integrity of practitioners. It offers a prototype model of the pre-travel consultation that takes account of the challenges associated with current practice.

The implications for practice relate to education for nurses in consultation management, patient-centredness, proactive versus reactive service provision, and patient education. PRE-TRAVEL - the new model for consultations - contributes a framework for engaging with these issues, subject to post-doctoral testing.

Glossary and Abbreviations

ABPI	Association of British Pharmaceutical Industry.
AV	Audio-visual recordings.
‘Blank slate’ travellers	A colloquial English term used in education to describe someone with no knowledge of a topic, needing to (passively) receive knowledge from a teacher or person with expertise.
BMA	British Medical Association.
BMJ	British Medical Journal.
BTHA	British Travel Health Association.
CATMAT	Committee to Advise on Tropical Medicine and Health, Canada
CDC	Centres for Disease Control and Prevention, US.
DH	Department of Health, UK.
DVT	Deep vein thrombosis.
Experts	Travel medicine specialists who contributed to the formal international and national guidance documents on pre-travel health care.
EC	European Community.
FCO	Foreign and Commonwealth Office, UK
GP	General Practitioner.
Green Book	A colloquial name used by the UK health care professions for the formal guidance on immunisation: Salisbury, D., Ramsay, M. and Noakes, K. (2006) <i>Immunisation Against Infectious Disease</i> . London: The Stationery Office.
GSK	GlaxoSmithKline, a pharmaceutical company.
HCA	Health Care Assistant.
HPA	Health Protection Agency.
ISTM	International Society of Travel Medicine.
LHB	Local Health Board.
Long-haul travel	Flights of longer than six hours duration.
MASTA	Medical Advisory Service for Travellers Abroad.

NaTHNaC	National Travel Health Network and Centre.
NHS	National Health Service.
NMC	Nursing and Midwifery Council.
ONS	Office for National Statistics.
PCT	Primary Care Trust.
PGD	Patient Group Direction. These are used for the supply and administration of prescription-only medicines by health care professionals who do not hold an independent prescribing qualification.
QOF	Quality and Outcomes Framework.
Quotes	In excerpts from the research transcripts, T = traveller, R = researcher, N = nurse participant.
RIAS	Roter Interactional Analysis System.
RCN	Royal College of Nursing.
RCPS(Glas)	Royal College of Physicians and Surgeons, Glasgow.
REC	Research Ethics Committee.
RPSGB	Royal Pharmaceutical Society of Great Britain.
TRAVAX	Online NHS database maintained by Health Protection Scotland to assist travel health professionals to advise those travelling abroad.
Travel health	A broad field of knowledge and practice that takes a biopsychosocial approach to risk recognition, reduction and management for travellers abroad.
Travel medicine	A specialist branch of medicine concerned with the prevention and treatment of travel-related health problems.
Travellers	UK citizens who travel overseas.
UN	United Nations.
VFR	<i>“VFR travel is generally undertaken by first or subsequent generation migrants who have settled and are resident in the United Kingdom (UK) and who travel abroad to Visit Friends and Relatives, usually to the country of their birth or ethnic origin.”</i> (Health Protection Agency (2008) <i>Foreign Travel-associated Illness – A Focus on Those Visiting Friends and Relatives: 2008 report</i> . London: HPA.

WHO World Health Organisation.

WTO World Tourism Organisation.

Coding All quotes from participants are accompanied by codes to provide an audit trail for the validity of the research, e.g. M6:G1:N4:T5:6

M = Method 6

G = Group 1 (applicable to method 6 focus groups only)

N = Nurse 4

T = Traveller 5

6 = line 6 in the original transcript.

To ensure anonymity was maintained in writing the thesis, codes and numbers originally allocated during data collection were reassigned in this document.

Chapter 1: Introduction

1.1 Aims, contexts and problems

The aim of the research was to examine nurse-led pre-travel health care provision in order to gain a better understanding of what might constitute an effective service.

The origins of this study were rooted in personal and professional experiences of travel-related health issues, and so this part of the thesis is written in the first person as I introduce myself and the contextual background for the research.

I have been able to travel widely as a result of my parents' work and lifestyle. One of my earliest memories is of emerging from an aircraft piloted by my father in the relatively early days of civil aviation. We landed at Entebbe airport, Uganda, and the quality of light left me momentarily blinded, and then awestruck – the light was so different, and so were all the people (I think it was the first time I had seen a black person). What I could not know or articulate then was the geophysical explanation that light appears brighter at the equator because of the earth's proximity to the sun – to me it was simply magical. I attribute my continuing curiosity for new places, my interest in different peoples, and particularly the Africophile in me, to that moment. Travel continued to be an exciting, regular part of my family life, and then weaved itself into my professional work. I can look back and see that many of the issues that are only now being recognised in the field of travel health, were occurring within the microcosm of my family, their friends and acquaintances, more than 40 years ago. We knew people who had infectious diseases such as malaria, hepatitis A and parasitic infestations; who suffered accidents and attacks by humans and animals; ex-pats who never really adjusted to life back in post-empire Britain; and some who did not make it back and were

buried in outposts of fading colonies before repatriation of the dead was routinely possible.

My first post as a registered nurse was on an isolation ward in a UK general hospital, a ward that I had enjoyed as a student because of the opportunities to learn about infection control, barrier and reverse barrier nursing, and the psychosocial aspects of being isolated with minimal human contact. The ward admitted the local population with serious infections such as meningitis, or those with impaired immunity such as leukaemia, as well as people with suspected infections arriving via a nearby airport. I therefore saw many tropical diseases such as malaria, and what eventually proved to be advanced AIDS – this was in 1981, just before awareness of HIV and AIDS entered the nursing consciousness.

I moved on to work in an accident and emergency department in southeast England, which was very different work, but where I began to form a conceptually wider view of global health matters. I remember occasional heated debates among the staff about who should or should not be treated on the National Health Service (NHS) – we received people from around the world because of the proximity of the airport and the ethnic demography of the local population. We also treated many people who used drugs, and I was aware of the miseries caused by dependency and habits. Staff therefore felt frustrated at their impotence to act when drug runners used the department to import illicit drugs. Their usual ruse was to feign chest pain on the incoming aircraft shortly before landing, whereupon an ambulance would be ordered to meet the aircraft and bring the passenger (clutching their hand luggage) to our emergency department. At some point in their examination, the passenger would leap up and run off with their bag, easily circumventing airport immigration and security controls. I began

to realise that travel-related health was a much bigger subject than tropical diseases, that it carried psychosocial implications as well as physical morbidity and mortality, and that globalisation was beginning to change the nature of health, illness and the provision of care and services.

This became a more focused view when I later got a job as a practice nurse in southwest England, and was tasked with setting up an immunisation clinic, a catch-all service for routine childhood immunisations, adult boosters, occupational health and travel vaccinations. Coinciding with phenomenal growth in foreign travel, and more demand in other general practices, I found my work changing and growing into advanced clinical, teaching, consultancy and quality assurance roles, with travel health at the centre of my interests. As a reflective practitioner, I asked myself questions about what I did and why, and did it work? As a clinical and classroom educator, I saw the many different ways in which general practices and individuals worked, and asked the same questions. I read widely, attended conferences, networked – and still doubts arose about what was being done in these lengthy pre-travel consultations, how and why was it being done, and what outcomes were achieved. I also sensed that there was ‘something different’ about pre-travel health consultations, but I was not sure what, or how to articulate it. As a general practice nurse I had lots of broad experience of the different reasons why people consulted. Pre-travel consultations seemed dynamically different from the treatment room tasks, the chronic disease clinics, or the urgent same-day appointments for ill patients. They were certainly time-consuming. In a period of growing demand upon the services of general practice, could the current provision of pre-travel health care be justified on the grounds of its evidence base, or its effectiveness? I was already aware from my educational work that optimal quality was not being achieved in some cases, for instance in the safe assessment of a

person's suitability for vaccination or malaria chemoprophylaxis. From this embryonic problem-formation stage grew the desire to examine practice more closely in the hope of making a contribution towards improving effectiveness, and the conceptual beginnings of a PhD.

1.1.1 Key terms

The term 'traveller' is used in this thesis to refer to the person travelling abroad. It is a term that is used and understood in the field of travel health, and differentiates the person's role from that of a patient, because they are not consulting for an illness. It shares no meaning with the same term used in association with Gypsies and Travellers, which requires capitalisation as an indicator of cultural and ethnic identity (Friends, Families and Travellers, 2008).

The terms 'travel health' and 'travel medicine' are often used interchangeably within the literature, although 'travel medicine' is most common. In this thesis they are used for specific purposes: 'travel health' is preferred because it encompasses a broad field of knowledge and practice, takes a biopsychosocial approach to risk recognition, reduction and management for travellers abroad, and is considered a more holistic approach to health. 'Travel medicine' implies a more specialised focus on physiological means to prevent and treat travel-related illness. Often, as the literature review will show, infectious diseases and tropical medicine feature prominently within travel medicine literature.

1.1.2 Travel health

There is much that is already known about travel patterns and trends. Global travel is now a normalised activity for much of UK society, and the subject of academic study on travel and tourism. It can be quantified – the Office for National

Statistics (ONS) estimate nearly 70 million trips abroad were taken by UK citizens in 2007 (ONS, 2009a). There is growing evidence of the health implications posed by international travel, both to individuals, their contacts, and to public health. Existing health problems and accidents are the main cause of death abroad, but infectious diseases do cause significant morbidity (Hargarten, *et al*, 1991; Freedman *et al*, 2006; Health Protection Agency (HPA), 2007). In the UK, preventive care is largely delegated to nurses working in general practice (Carroll *et al*, 1998; Royal College of Nursing (RCN), 2007).

Furthermore, the discipline of travel health is new and small, and is therefore under-researched generally. The literature exposes questions about the make-up and delivery of the pre-travel health consultation, and about what constitutes 'quality'. There is a lack of stakeholders' perspectives in travel health research (i.e., the opinions of travellers and nurses who deliver services), yet one recurring theme in the literature on quality is the need to take into account the multiple perspectives, and particularly patient views, on issues appertaining to quality in health care (Greenhalgh and Eversley, 1999). Many studies in the field of travel health are vaccine-oriented and funded by vaccine manufacturers. Small-scale quantitative studies using survey techniques dominate the methodologies of other travel health research. It seemed, therefore, that there was a case to be argued for adding qualitative research to the existing body of knowledge in this new field, and to use new and innovative research methods in so doing.

1.1.3 Quality

The ontological underpinning of the thesis is that any health care or aspect of nursing should aspire to provide the best quality possible – but just what 'quality' might be in pre-travel care was not certain, and this concept was therefore

explored in the literature review (Chapter 2). It revealed Donabedian's framework for quality care, which involves consideration of structures (tangible resources), processes, and outcomes of care.

1.1.4 Consultations

What was not known was what actually went on in general practice pre-travel consultations, and what travellers did as a result of those appointments. A review of the travel health literature revealed that there were many anecdotal recommendations on what the health professional should *tell* the traveller, but issues about quality, processes, health promotion techniques and consultation dynamics were lacking. There is very little research on consultations by nurses, although numerous studies on consultations by doctors are published. This led to an expansion of the review to encompass topics that relate to travel health: research on consultations, and on health promotion and education techniques. The literature on managing consultations has largely focused on the ill patient, or those with chronic conditions (Usherwood, 1999; Neighbour, 2005; Silverman *et al*, 2005), and health promotion research has not yet been directed to the pre-travel health consultation. A few isolated suspicions that the pre-travel health consultation was not optimal, as was generally assumed, surfaced from the literature (Bauer, 2005; Rombo, 2005). Models of consultation, and others relating to health promotion, did not seem to 'fit' the pre-travel situation.

1.2 Rationale and research questions

Together, the research context and the review of the literature articulated the following problem:

The pre-travel health consultation in general practice is delegated to nurses as a service response to increasing patient demand. It has developed *ad hoc* and there has been little research into the aims, methods or outcomes of this unique type of consultation. However, my anecdotal experience is that optimal quality is not being achieved.

Until there is evidence to describe what is *actually* happening in these consultations, it is difficult to specify whether accepted generic standards are met, and if not, what can be done to improve the quality of care. Researching these topics will enable a more systematic, comprehensive approach to practice development and will contribute to the understanding of the content and dynamics of the pre-travel health consultation.

The research questions formulated from practice and the literature focused the study on pre-travel health care by nurses in general practice:

1. What currently comprises the nurse-led pre-travel health consultation?

Subsidiary questions include:

- a. What structures, processes and outcomes are currently associated with the pre-travel health consultation?
- b. How appropriate are the interventions, when mapped against the 'expert' opinion and guidance available in the literature?
- c. Do nurses consciously adopt a model of consultation?
- d. How do travellers use the education, information, advice and interventions gained from the consultation?

2. What elements ought to be incorporated into a consultation model for pre-travel health?

Subsidiary questions include:

- a. Is a new model needed, and what would be its purpose?
- b. How could a core model be made flexible enough to adapt to the needs of different travellers?
- c. How can the views of different stakeholders (nurse, traveller and expert) be synthesised with evidence of best practice from models of consultation, health promotion, communication and education?

As the literature on quality stressed the need to understand quality issues from the perspectives of all stakeholders, a design was needed to capture the activities of three groups: the 'experts' who originate the advice about what should be risk-assessed and addressed in a pre-travel health consultation; the practice nurses who conduct them; and the travellers who attend. The literature also identified a lack of qualitative studies within the field of travel health, and so a qualitative research design was chosen to explore and interpret the behaviour, thoughts, experiences and attitudes of nurses and travellers.

1.3 Structure and overview of the thesis

Throughout the thesis Donabedian's *Structures, Processes, Outcomes* theoretical framework was used to organise material, to evaluate current consultation practices critically, and to inform the development of a new model of consultation. *Structures, Processes, Outcomes* theory has been developed and used in practice over a number of years, and has gained wide acceptability as a framework for evaluating and designing health interventions (Donabedian, 2003). However, it has not been used to examine travel health provision or the nursing

consultation in a critical manner, and therefore offers an original element to this study.

Chapter 2 provides a review of the literature. Its purpose is to lay out what is known about travel and travel-related health issues, to explore the concept of quality and the phenomenon of the consultation. Where there were gaps in knowledge, ideas for the research questions began to form. Starting with an understanding of travel trends and their consequences for health, then moving on to the broad context of quality within health care, the policy agenda for improving services is critically examined, and in particular, the emphasis on risk management. One facet of quality care provision is the interface between the patient and the health care worker, which leads into a review of the phenomenon of the consultation. There is consensus outside and within travel health that the consultation is the cornerstone of health care, and the two key concepts of patient-centredness and patient empowerment arise from its evolution. This is the contextual background for examination of the pre-travel health consultation, synthesising what is known about quality, consultations and travel health to identify the gaps in knowledge and to present a rationale for this research. Thus pre-travel health care is nested within the wider issues concerning consultations, which in turn form part of the quality agenda operating within health care today.

Chapter 3 provides an overview of the methodology. Six research methods are used, a technique which Denzin and Lincoln (1998) refer to as 'bricolage': the deliberate selection and combination of methods that are best suited to answering the research questions. An additional benefit of using a combination of methods is to crosscheck observations and to lend strength to the validity of the findings (Adami and Kiger, 2005; Williamson, 2005). The six methods are:

1. Documentary analysis of 'expert' guidance on pre-travel health care;
2. An audit of resources available to practice nurse participants;
3. Audio-visual recordings of consultations between practice nurses and travellers;
4. Health diaries kept by travellers while abroad;
5. Interviews with travellers upon their return;
6. Focus group discussions with practice nurses to explore issues emerging from the literature and the previous five methods.

The research is presented in three phases, representing how official guidance 'travels' from its origins to its implementation. Thus each phase presents a stakeholder's perspective: phase one is that of the experts who produce travel health guidance; phase two presents the perspectives of practice nurses; and phase three focuses on that of the travellers. Each phase briefly recaps the methods used to collect and analyse data, presents the findings, and discusses their interpretation and implications.

Chapter 4 presents the first phase, that of the experts who formulated the content for pre-travel health consultations. Identified through official, published guidance to practitioners, documentary analysis revealed the doctor-oriented focus of much of the guidance. This reflects that the UK is unusual in having nurse-led pre-travel health services. Much of the guidance was based on expert opinion rather than a strong evidence base. It consisted of a 'what to' cover approach, with very little consideration of 'how to' manage consultations and services.

Chapter 5 moves on to explore what practice nurses did with the official guidance, with the aim of describing the degree of congruence between prescribed and

actual practice. This second phase used three methods and produced insightful information. Firstly, an audit of the resources available to practice nurses for travel consultations was undertaken. Secondly, audio-visual (AV) recordings of consultations with travellers were qualitatively analysed with some additional assistance from a quantitative technique called the Roter Interactional Analysis System (RIAS) to identify categories of communication (Roter, 2005). Finally, focus group discussions with practice nurses were held. Findings included the difficulties nurses face in providing pre-travel health care, with a dominant issue of practitioner and patient safety emerging from the analysis.

Chapter 6 presents the third phase of the fieldwork, investigating what travellers did with the contents of their consultations, and how they managed their health (and any episodes of ill health) while abroad. This phase utilised data from the AV recordings of consultations, diaries kept by travellers while abroad, and telephone interviews with them upon their return. Key findings were that there is little evidence for the effectiveness of some interventions made by nurses within their consultations, that pre-existing knowledge of travellers is routinely underestimated, and that for many travellers, the perspective is one of travel being a health-*giving* activity, as opposed to the health-*threats* perspective of the nurses.

The literature review and findings from all three phases of the research are synthesised in Chapter 7. It expands upon the use of models to shape health care, looks back at established best practice in consultations and health education, and examines the research findings in relation to these standards. From this, a new model for pre-travel health consultations is proposed, the PRE-

TRAVEL model, to encompass concepts of patient-centred care, realistic risk assessment, empowerment and individually tailored information and interventions.

To conclude the thesis, Chapter 8 summarises the findings, and makes an appraisal of the strengths, contributions and limitations thereof. The implications for future research, policy, practice and education are based on this appraisal, and plans for dissemination of the findings are outlined. Figure 1 depicts the thesis structure.

Figure 1: Structure of the thesis.

Chapter	Research stage	Methods used
1	Introduction	
2	Literature review	
3	Methodology	
	Findings and Discussion	
4	Phase One: What do the experts say?	→ Method one: Documentary analysis.
5	Phase Two: What do practice nurses say and do?	→ Method two: Audit. → Method three: AV recordings of consultations. → Method six: Focus group discussions.
6	Phase Three: What do travellers say and do?	→ Method three: AV recordings of consultations. → Method four: Diaries. → Method five: Post-travel interviews.
7	Synthesis and Discussion	Discussion and synthesis of methods and findings.
	Towards a new model	Design of prototype model for pre-travel health consultations.
8	Conclusions	

1.4 Conclusions

The two contexts of quality improvement and the growth of travel-related health needs, present an intriguing paradox, as there is little, if any, research to link them. Achieving the aims of this study provides opportunities for practice development, contributes to the understanding of the content and dynamics of the pre-travel health consultation, and allows for personal and professional growth through the completion of original research.

The original contributions of this study are apparent in a range of domains. In terms of design and methodology, the thesis adds a qualitative study to a field characterised by a great many studies with biological or survey designs. The use of bricolage to trace the route of knowledge about pre-travel health care from its origins with experts to its utilisation by travellers, appears not to have been attempted before. For practice, this study offers a description of what *actually* happens in pre-travel health consultations, moving away from the commonly found assumptions of what *should* be done. It challenges the use of time and resources spent on interventions that are unproven, suggesting better educational techniques and approaches to information-giving, and identifying the need for more research on the outcomes of pre-travel health care. More immediately, issues of patient safety are identified that can be managed by individual practitioners. For education, the study emphasises the need for nurses to learn about consultation models and skills, not just isolated communication skills. For future research, a prototype model specific to pre-travel health is proposed for further testing. For travel health and consultation theory, it identifies the 'look' of a pre-travel health consultation and its dynamics as being different from other types of consultation.

UK citizens today have opportunities for global travel, the scale and speed of which is unprecedented. The rapidity with which so many people can move between different environments brings new health issues in its wake, and requires different approaches to health care provision. UK practice nurses have a unique role in meeting these needs, and it is hoped that this research will make some small contribution to enabling their practice.

Chapter 2: A review of the literature

2.1 Introduction

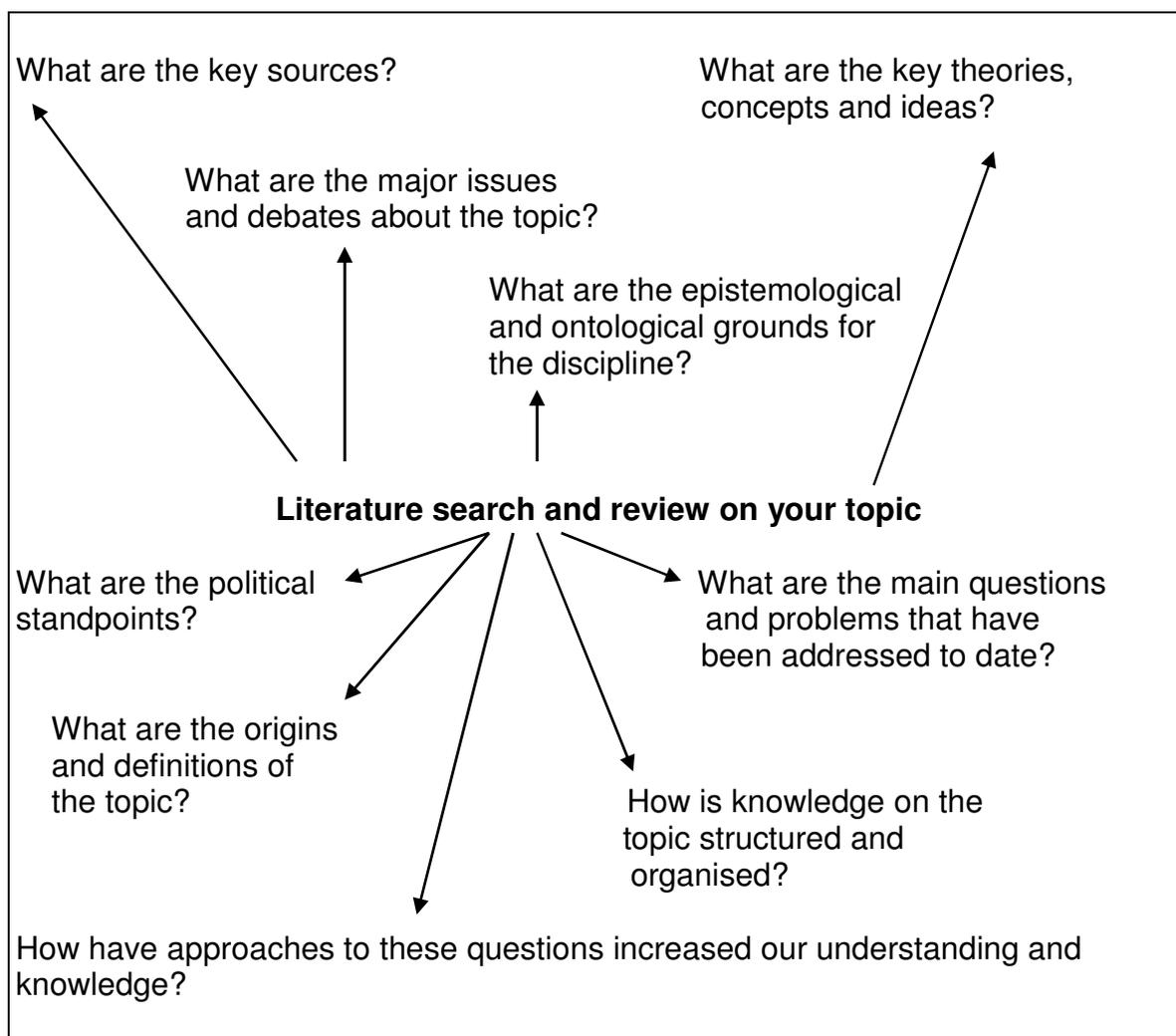
The phenomenon of mass global travel is arguably one of the defining features of the 20th and early 21st centuries. As with other examples of mass human behaviour, there are consequences upon health, and therefore implications for health services. Chapter 1 introduced the researcher's anecdotal view that pre-travel health care is an area of practice that lacks description and evaluation, raising questions about just what is being achieved through pre-travel consultations by nurses. The aims of the literature review are to set out the background to travel health, to examine the concept of quality within health care, and in particular, the phenomenon of the consultation. By considering the implications for the pre-travel health consultation within these contexts, the literature review is a key stage in justifying why and how the research was undertaken.

Literature was located using a number of techniques, and those specific to travel, quality, and consultations are addressed in sections 2.2, 2.3 and 2.4, respectively. The overall approach was to use key words and synonyms in Boolean combinations to search the following databases: PubMed (MEDLINE); OVID; BNI (British Nursing Index); CINAHL (Current Index to Nursing and Allied Health Literature); Cochrane Library; ASSIA (Applied Social Sciences Index and Abstracts); HealthPromis (health promotion); ProCare (research methods); PsychINFO (health psychology); NMAP (Nursing, Midwifery and Allied Health Professions); and NeLH (NHS electronic Library for Health). These were initially accessed in 2005 and publications dating from 1995 onwards were searched, with periodic updates to check for post-2005 additions because the study was undertaken on a part-time basis. Additionally, electronic and manual searches

were carried out in the libraries of the University of Warwick, the Royal College of Nursing, and the London School of Hygiene and Tropical Medicine. This involved searching for other papers by authors identified from relevant studies, checking subject-relevant journals, and checking references and sources used in relevant literature. Although primary research papers, then secondary papers (e.g. reviews) were sought, the 'grey' literature (e.g. theses) was also searched for useful contributions. The searches ended when no more new or useful references were found, or when concepts within papers had already been identified. No similar research projects were found in the Department of Health's (DH's) National Research Register (2005, 2009) or the RCN's Steinberg Collection of Theses (RCN, 2009a).

Once relevant publications were identified and retrieved, a systematic process of appraisal was undertaken. This involved honing skills such as reflection, critical thought, evaluation, analysis, interpretation, commenting on, agreeing or refuting points, questioning, synthesising and summarising content. University of Warwick skills development programmes assisted with this process, as did key texts, which included Blaxter *et al* (2001); Coombes (2001); Greenhalgh (2001), and Denscombe (2003). A useful tool for organising the appraisal was Hart's (1998) 'mind map' of questions for a literature review to answer, as shown in Figure 2 below. This was used as a guide to check that salient points were noted when reading papers.

Figure 2: Some of the questions a literature review can answer (after Hart, 1998:14).



Firstly, the context of travel is explored in section 2.2, and encompasses historical and current trends. The impact of travel upon health, and the ensuing responses of UK health services are examined, together with consideration of how and where UK travellers get their health care and information from.

Secondly, the concept of quality is addressed in section 2.3, from its historical origins to its manifestation within health care practice and policy. This exploration of the quality agenda provides the broad context for research into pre-travel health consultations by recognising that the consultation does not exist within a vacuum, but is shaped by other influences. It is from the context of quality that Donabedian's *Structures, Processes, Outcomes* framework is identified, and is

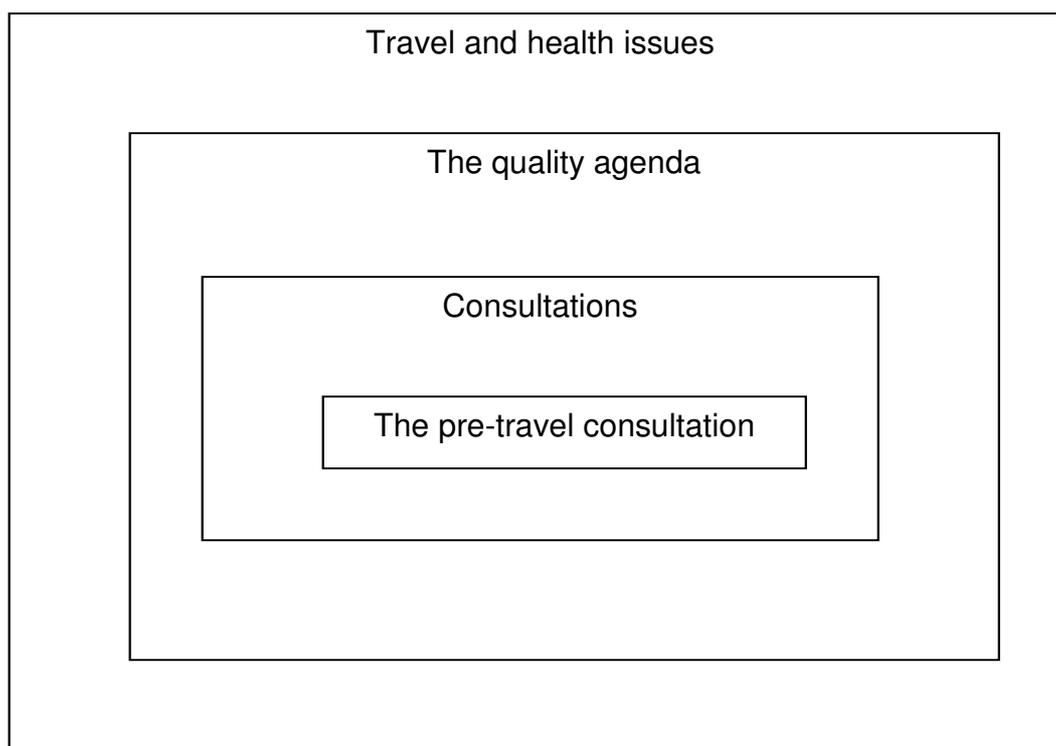
later used to organise many aspects of the research (Donabedian, 2003). The concept of managing risk is introduced as an important component of the quality agenda.

From the quality agenda, another key aspect relating to service delivery – the consultation – is selected for further scrutiny in section 2.4. The literature review narrows down a little from the broad contexts of travel and quality, to explore the phenomenon of the consultation. The role of the patient, and the way in which nursing has contributed to the provision of consultations, are also evaluated. The aim of this part of the literature search was focused primarily on finding *models* of consultation – meaning the overarching design of the interface between practitioner and patient or client – but revealed specific difficulties surrounding the terminology used by different practitioners. This is presented in section 2.4, and provides material for methodological discussion at several points further on in the thesis.

Section 2.4.4 focuses more specifically on the pre-travel health consultation, establishing what is already known about this particular phenomenon, and identifies where there are gaps in knowledge.

Finally, the conclusion synthesises findings from the literature review on the pre-travel health consultation, its place within current health care provision and its strengths and shortcomings in terms of meeting societal demand for pre-travel advice and interventions. The nested structure of this chapter is depicted in Figure 3 below.

Figure 3: Structure of the literature review.



2.2 Travel and health

2.2.1 Introduction

The literature review relating to travel benefited from both manual and electronic searches of the library at the London School of Hygiene and Tropical Medicine because it was started in 2005 when online access to research publications was less comprehensive than in subsequent years. Various combination search terms such as “travel AND health”; “travel AND illness”; “travel AND medicine” were used. As a relatively new discipline, travel medicine research was largely represented in the *Journal of Travel Medicine*, an official publication of the International Society of Travel Medicine (ISTM). Publications relating to the broader issues of travel health were more frequently located in books and practice nursing journals. Over 200 publications were retrieved, including research articles, peer-reviewed opinion papers and literature reviews.

2.2.2 Trends in travel

The need for travel health promotion can be viewed in the light of two contexts: the growth in travel during the 20th and early 21st centuries, and the complex, multifactoral reasons why people fall ill (morbidity) and die (mortality) as a result of, or during travel.

Mass transportation

Aircraft and cars are “*heralds of modernity*” signalling an age of widespread global travel for increasing numbers of people (Teich and Porter, 1990:54). Mechanical developments have revolutionised individual mobility, and international air travel has progressed from being accessible only by the very rich, to the situation today of ‘bucket’ shops, ‘no-frill’ budget airlines and ‘last minute’ Internet deals being available to the majority. Mass transportation can be said to have opened up the world and changed economies and cultures on a scale far in excess of the traders, explorers and colonialists of previous centuries. As John Simpson, the BBC’s World Affairs editor put it:

Once we had a planet. Now...we’re left with a suburb.

(Simpson, 2000:27).

Mass transportation also changes the risks posed by infectious diseases, as evidenced by the spread of severe acute respiratory syndrome (SARS) on a global scale in 2003 (Laurance, 2003) and ‘swine’ flu in 2009 (World Health Organisation (WHO), 2009). UK aviation is predicted to continue to grow (ONS, 2009b), but the way in which travellers book their flights is also changing and affecting the patterns of risk. At least 10 per cent of travel purchases are now made on the Internet, but sites offer little in the way of health advice (Horvath *et al*, 2003). There is also an increasing trend towards late or last-minute bookings,

with figures from 20 per cent suggested (Plus Four Market Research Ltd, 2003; Van Herck *et al*, 2003).

Numbers of travellers

The statistics on how many foreign visits are made by UK residents are impressively large with over 70 million visits abroad made in the 12 months to June 2008. (ONS, 2009c). In 2003, despite terrorism, the Iraq war, SARS and a strike by British Airways check-in staff, travel bookings went up, largely due to the success of budget airlines. The conflict in Iraq may actually have boosted bookings for those airlines prepared to carry thousands of journalists, diplomats and troops to and from the Middle East (Tuke, 2003). Economic recession has flattened the numbers of UK airline passengers in 2009, but this is considered a temporary feature, and the Department for Transport estimate that between 2010 and 2030 the total number of international passengers using UK airports each year will grow from 270 million to 464 million (ONS, 2009b).

Reasons for travelling

The reasons for travel are varied but holidays and social visits, including visits to family, are major motivations, and 70 per cent of foreign travel is for leisure purposes. Other reasons include travel for business and study; and pilgrims, migrant workers, military personnel, diplomatic and political staff, sports participants and spectators together form a significant number of travellers both to and from the UK (Dawood, 2002). A growing trend is to travel abroad for medical interventions, in order to reduce the costs and waiting times incurred in the UK (Dawood, 2008). Handszuh (2001) speculates that 21st-century tourism will be seen as the antidote to the pressures of living a high technology lifestyle in an industrialised country, and that tourism, whether it be a luxury spa package, or the

selling of excitement to those with an otherwise 'safe' lifestyle, will fill a gap in people's lives. Thrill seeking as an antidote to an everyday risk-managed life is recognised in the fields of sociology (Bradby, 2009) and health promotion (Naidoo and Wills, 2000), and travel is one means of achieving excitement. Overall, travellers are not a homogenous group, being of any age, either gender, all states of health and ill health, and with varying purposes to their journey.

Destinations

Whereas the majority of visits are made within Western Europe (particularly Spain and France) and North America, trends to visit the Middle and Far East, Africa, Asia, Central and Latin America and Australasia also show growth (ONS, 2009d).

Recognising the impact and growth of tourism

The huge growth in travel caused the United Nations (UN) to set up the World Tourism Organisation (WTO) in 2003 (WTO, 2003). It now has the status of a Specialised Agency of the UN, alongside industry, agriculture, transport, education, culture, health and labour. The WTO stance is that tourism has become just as important a human activity as these other fields, showing growth despite war, terrorism, natural disasters and epidemics. Sustainable tourism is seen as a key to alleviating poverty, stimulating economic growth, providing an incentive to protect the environment and cultural heritage of host nations, and a force for the promotion of peace and respect for human lives. Hart's (1998) guide to reviewing the literature, shown previously in Figure 2, acted as a prompt for questioning the debate on these aims. Such claims are laudable, but the risk of exploitation of one nation by another is as possible through tourism as it has been through trade, war and invasion. The benefits that tourism can bring to fragile economies of developing countries are acknowledged, but the accompanying

risks of 'new colonialism' problems such as sex tourism, and cultural and environmental erosion, must also be recognised (WTO, 2003; Pattullo and Minelli, 2006; Willcox, 2009). This is not a new critique: the ethics of African exploration have been questioned since the early days of empire. For instance, Henry Morton Stanley has been depicted as a sexual opportunist and a "*robber thief*", presenting an iconic image of the negative impact of travel in a search for personal satisfaction through adventure (Bierman, 1990:340).

The commodification of risk and excitement appears to be a feature of many travel brochures to long-haul destinations, but is also subject to the influences of what could be termed a political form of discrimination by western countries. Soon after the events of September 11th 2001 unfolded in America, Mayor Rudolph Giuliani appealed to people to come to New York. Its theatre, shopping, tourist and commerce sectors relied upon foreign visitors, and the appeal was direct and clear – the UK Foreign and Commonwealth Office (FCO) did not put out warnings against travel to the US. However, they did do so following the Bali bomb in 2002, and following the attack aimed at Jewish travellers in Mombasa, Kenya, 2002. The tourist economies of both Bali and Kenya were adversely affected, but the rationale for the difference in advice remains unclear and appears arbitrary. However, the trend for sustainable tourism that is of mutual benefit to the visitor and the host population is being highlighted (Pattullo and Minelli, 2006). Both the FCO (2009) and the ISTM (2009a) now publish codes of ethical conduct for distribution to the travelling public. Travel health care does risk being a western-centric service, focused only on the needs and wants of white westerners, but the global impact and dyadic nature of travel is acknowledged here, although it is not the focus of this research.

2.2.3 The risks of travel

Historical and global perspectives

The risks of morbidity (illness) and mortality (death) from travelling have a historical context that centres on infectious diseases, and this emphasis remains in the perceptions of travellers and many travel health professionals in the UK today. Reid *et al* (2001:3) declare that: “*The history of epidemics is the history of wars and wanderings*”, and the complex interactions between human activities and the emergence and re-emergence of pathogenic microbes is well documented by Karlen (2001) and Donaldson (2002). Bradley (2001) defines travel as a process of environmental change; but it is the traveller who changes their environment rather than the environment of a static person changing over time, and the rapidity of this process results in illness and even death for some travellers.

There are Biblical references to what was possibly bacillary dysentery amongst the Philistines who, having captured the Ark of the Covenant from the Israelites, travelled from place to place to escape recapture. Thucydides chronicled the Athenian plague of 430 BC, a major factor in the weakening of Athen’s power, and is speculated to have been bubonic plague, smallpox, influenza or measles (Reid *et al*, 2001). Infection-related language is woven into modern English usage: the word ‘quarantine’ is derived from the Italian for ‘40 days’, the period for which 14th-century ships were detained as a precaution against plague. Black Death, the haemorrhagic form of plague, followed trade routes from Asia, killing at least a quarter of the population of Europe. The arrival of Columbus is said to have brought measles, smallpox and syphilis to the native Americans, and half of the Aztec population of Mexico succumbed to smallpox following invasion by Spanish forces (Reid *et al*, 2001). Cossar and Reid (1992) researched the history of

Scottish missionaries travelling abroad between 1873 and 1929 and found that 25 per cent had to return home early as a result of health problems and 11 per cent died in service. Diarrhoeal diseases are colloquially linked with the geographical region in which they were acquired, hence the Turkey Trot, Delhi Belly, Rangoon Runs and Gypsy (Egypt) Tummy. The tendency for one nation to blame another for its ills is clear in the way that syphilis has been labelled since the Middle Ages:

In France it was the Italian disease, while in Italy, Germany and England it was the French disease. It was the Spanish disease in Holland, the Castilian disease in Portugal, the Polish disease in Russia, the Russian disease in Siberia, the German disease in Poland, the Christian disease in Turkey, the Turkish disease in Persia, and the Portuguese or Chinese disease in Japan. It became the most disowned infection in history (Karlen, 2001:124).

Perhaps there are echoes of this tendency today with the incidence of tuberculosis being blamed on immigrants and refugees in the popular psyche, and not on the social conditions and poor health status endured by these groups (HPA, 2008a).

Getting Ahead of the Curve, a report by the Chief Medical Officer, Liam Donaldson (2002), addresses strategies for combating infectious diseases. Despite success stories such as the near-elimination of poliomyelitis through vaccination, infectious diseases cannot be considered a thing of the past. The issues raised by Donaldson are that climate and changes in land use, global travel, human behaviour and microbial adaptation, all permit continuing threats to arise from new and re-emerging infections. Clearly the international traveller is both causal and at risk of disease, and the 2003 SARS episode and the 2009

H1N1 influenza pandemic depict this dilemma (Lever, 2003; National Travel Health Network and Centre (NaTHNaC), 2009a). The numbers of people travelling, the speed of travel and the degree of close human proximity that occurs in aircraft, cruise ships and large hotels are all factors in the ability of infections to spread rapidly today, whereas the incubation, infection and recovery periods of infectious diseases were often over by the time trade ships of previous centuries travelled the seas. Then, vectors such as rats played an important part in the spread of infection, but Gratz (2003) updates this concept for travellers today, warning that both rodents and mosquitoes have survived aircraft and ship travel and port inspections. The West Nile virus that is now endemic in several American states is one example of the introduction of a new infectious disease as a result of global travel. Ancient travel posed disease risks, but the mechanics of mass modern travel mean that outbreaks of infectious diseases are greatly accelerated and magnified.

What makes travellers ill?

Travel medicine is a new discipline, and its body of knowledge is still developmental. The evidence base for much of the standard advice is described as tenuous (MacKay, 2008). This is particularly the case for epidemiology because establishing trends and causal patterns relies on systematically collected data, and such activity is at a relatively early stage. However, the international and UK literature indicate that as a result of the number of travellers, and the speed at which it is now possible to travel, there has been an increase in illness and deaths abroad and shortly after returning home (Freedman *et al*, 2006; HPA, 2007). A decade ago, Lawlor *et al* (2000) estimated two million travellers consulted UK general practices for travel-related illness at a cost of £11 million a year. Hughes and Carlisle (2000) found that 41 per cent of travellers to high-risk destinations fell

ill, 14 per cent sought medical help abroad, and five per cent on their return home. Surveillance involves the systematic collection, organisation, interpretation and dissemination of data on health and illness, and is considered an important stage in the recognition and management of infection control (Donaldson, 2002). This importance can also be inferred for non-infectious causes of illness and death abroad.

However, exact statistics are difficult to assemble for several reasons. Until recently, there was no unified, international or UK surveillance system. Travellers converge on a seaport or airport to travel, reconfigure and return to various home destinations, facilitating the global dissemination of infections, with uncertainty about where, or whom it originated from (Maloney and Cetron, 2001). Kniestedt and Steffen (2003) draw attention to the difficulty in collating data in their study of Swiss travel insurance claims. They recognised that existing data came from surveys of patient self-reports; therefore data were missing from those who died or were repatriated because of serious illness. They reviewed all claims filed between 1997 and 1998, and of all the intercontinental evaluations of travel health risks, found that only travellers' diarrhoea was adequately recorded. Different countries vary in their ability to investigate and record causes of death, and the likelihood of deaths from different causes also varies according to the type of traveller and their destination. Steffen (2008) explained apparent contradictions in the data by identifying older people as the main travellers to warm, southern climes where natural causes were the predominant reason for death, whereas younger travellers to developing countries accounted for the higher rates of road traffic deaths. People are likely to fall ill or die from a condition that would have happened to them anyway had they stayed at home, and determining whether travel accelerated or exacerbated a health problem is often a clinical uncertainty.

Another reason for partial data on travel-related mortality and morbidity rates was identified by the HPA who, over successive years, cited clinicians and laboratories as failing to record key data that could determine the origins and likelihood of infections (HPA, 2007). Furthermore, the Agency does not include Scottish statistics, and only those UK citizens whose deaths abroad came to the attention of the FCO, are recorded. Between 2001 and 2006 there was an average of 4,000 such deaths each year, which the HPA acknowledge is a probable underestimation. Only 16 per cent of emergency department doctors noted a history of travel in patients who had an imported disease in a UK study by Smith (2006).

Where data are now being collected and compiled, a triad of features relating to mortality emerge: deaths from infections are low, accidentals deaths are significant, but the main causes of death are natural, particularly related to pre-existing medical conditions. Hargarten *et al* (1991) researched the deaths of US citizens occurring abroad, finding that only one per cent was due to infectious diseases and that 49 per cent were due to cardiovascular disease. Accidents abroad accounted for 22 per cent of deaths. A monthly incidence rate of one death in 100,000 travellers has been calculated by Steffen (2008), again with a *caveat* that this may vary because of population and destination characteristics; Shlim and Gallie (1992) provide a figure 15 times higher for trekkers in Nepal where altitude sickness is a significant risk; and Sheik *et al* (2000) identified intentional violence as the main cause of death in humanitarian workers abroad. For UK citizens, the main causes of deaths abroad are not differentiated between short-term travellers and expatriates, and are assumed to follow the age and destination-related trends in studies cited by the HPA (2007) and Steffen (2008).

Paixao *et al* (1991), Prociv (1995) and MacPherson *et al* (2000) from Scotland, Australia and Canada, respectively, provide evidence that men are more likely to die abroad than women, with ratios between 3:1 and 4:1 suggested. It is unclear why this is so, but possible explanations may be the higher prevalence of cardiovascular disease in men, more risk-taking behaviour by men, or less exposure to pre-travel health checks and advice by men. The MacPherson study estimated that more than a third of deaths in Canadian travellers were preventable through pre-travel checks; Reid *et al* (2001) consider almost all deaths abroad to be potentially avoidable. This appears to be an optimistic claim when consideration is given to the lack of evidence about what is achieved in pre-travel health consultations, that some deaths occur in people without a known pre-existing condition, and that the ability to predict an imminent cardiovascular event is uncertain.

The incidence of travel-related morbidity covers a spectrum of illnesses of different degrees of severity. Episodes of travellers' diarrhoea are the most common complaint, affecting 20 to 90 per cent of travellers, depending upon destination (Steffen, 2008). Most travellers' diarrhoea is self-limiting, but sometimes hospitalisation and serious infection occurs due either to the responsible pathogen, or because a person has an underlying condition that makes them vulnerable to complications. Hepatitis A and B, rabies, typhoid, polio and some forms of meningococcal disease are vaccine-preventable, and there are some nine travel-related vaccines licensed for use in the UK, but the diseases they protect against probably account for less than five per cent of all travel-related ill health (Kassianos, 2001).

However, a segment of the UK travelling population known to be visiting friends and relatives abroad (VFRs), disproportionately carry the burden of some infections such as malaria, typhoid, paratyphoid and hepatitis A infections on return to the UK (HPA, 2008b). Globally, 20,000 cases of malaria were estimated to be imported to industrialised countries each year (Muentener *et al*, 1999), with an approximate figure of 2,000 for the UK (HPA, 2008b). Malaria is the most frequent infectious cause of death in travellers (Steffen, 2008). In other global travellers, high rates of sexual activity, often unplanned and unprotected, are reported by Croughs *et al* (2008) and Ansart *et al* (2009). A spectrum of disease transmission is recognised, including gonorrhoea, hepatitis B, HIV infection, and to some extent, cases of hepatitis A, as well as other sexually acquired infections.

Data collection and surveillance are improving in respect to morbidity. A seminal study by Freedman *et al* (2006) presented findings from GeoSentinel, the global surveillance network for travel-related morbidity set up in 1995 by the ISTM and the US Centres for Disease Control (CDC). Although the data came from specialist tropical and travel clinics, and did not represent most general practice or emergency departments in the UK, the large sample of 17,353 people from six continents lends weight to the study. Between 22 and 64 per cent of travellers to the developing world developed health problems, most of which were self-managed. Eight per cent required medical care as a result of travel, and the links between destinations and diagnoses became better understood. Although morbidity data were not referenced to any pre-travel advice or interventions, the authors claim that the findings will help to prioritise pre-travel prophylaxis.

This section has discussed mainly infectious diseases and travel, reflecting the focus of much of the literature. For instance, the literature search showed that in

2008 the *Journal of Travel Medicine* published four editorials, three of which were on infections, and 40 original articles, of which 36 related to infections or medical emergencies and fatalities in travellers. However, there is recognition that other health problems occur in relation to travel. Issues such as sunburn and the risk of skin cancers, the consequences of sexual activity, or accidental harm are briefly mentioned in the formal guidance for practitioners analysed in Chapter 4. Many of these topics feature in discipline-specific journals, e.g. dermatological publications may focus on skin cancer, acknowledging the relationship to travel. However, it was outside the scope of this study to widen the search in this way, and it was of greater relevance to analyse the travel health and medicine-specific body of literature. Within this, textbooks offered the most comprehensive reviews of non-infectious causes of ill health in travellers. Lockie *et al* (2000), Dupont and Steffen (2001) and Keystone *et al* (2008) all include travel-related health issues associated with individual health status, behaviours and environment.

2.2.4 Travel health services

Defining terms

The provision of travel health services differs globally and within the UK. Whilst this might be expected of a new, evolving service, it is valuable to clarify or acknowledge the key terms used in service provision. The following definition of the subject is from the Committee to Advise on Tropical Medicine and Travel (CATMAT) within Canada:

Travel medicine is the field of medicine concerned with the promotion of health and the prevention of disease or other adverse health outcomes in the international traveller. The practice of travel medicine is distinct from the practice of tropical medicine (CATMAT, 1999:1).

CATMAT's differentiation between travel and tropical medicine is useful because it indicates the need to address wider causes of illness than just those caused by infections, which is the main thrust of tropical medicine. CATMAT's and others' (Zuckerman, 2002) description of travel medicine as a speciality is important: it is a new and evolving area of health care in need of better recognition by the public, health professionals, policy makers and the travel industry. However, the term travel 'medicine' rather than 'health' does indicate the dominance of medicine over other professional groups who contribute to the subject.

An overview of travel health provision

The discipline of travel health emerged during the 1980s and 1990s in response to the growing geographical movements of people, the speed at which they travel and the risks posed by such activity (Jong and McMullen, 2003). The ways in which travel health services are delivered have developed differently throughout the world and also within the UK depending upon the health service contexts in which practitioners are situated.

The network of the CDC (2009), the WHO (2002), and possibly in the future the WTO (2003), all exert some influence on the global provision of travel health services by advising on general issues and priorities. The WHO has also advised on the role of travel industry professionals, urging their involvement in pre-travel health advice to travellers. The travel industry operates on three different levels:

- retail travel agents who promote and sell tours, packages and services
- tour operators who put together the packages or tours
- suppliers such as airlines, resorts, hotels or car hire companies who supply the services that go to make up a tour.

There are growing calls for these industries to play a greater part in travel health services because they interact with travellers in the planning stages, and therefore have an opportunity to contribute to the prevention of travel-related deaths, injuries and diseases (Lawlor *et al*, 2000; MacDougall *et al*, 2001; Schiff, 2001; WHO, 2002; Wynn, 2004). However, travel industry staff are not health professionals or experts, they have a commercial interest in selling travel packages, tours and services and do not want to repel potential customers. A countervailing argument is that repeated custom depends on travellers returning home healthy and safe, and this could be encouraged by a travel agent who appears to care about the well-being of customers, making health advice a value-added factor in a competitive market. Schiff (2001) noted that there are no definitive studies on whether health warnings or advice discourage travel uptake. There are legal requirements driving the involvement of travel industry in health measures, most notably the European Community (EC) directive 90/314/EEC. This directive required EC countries to implement the following policy by 31st December 1992: *“The organizer and/or the retailer shall provide the consumer...with information of the health formalities required for the journey and the stay.”* (Article 4, 1(a) cited in Schiff, 2001:13).

Outside of the EC there are no such directives. The US has a variety of laws enacted by different states at different levels, although the accessibility of negligence jurisprudence may provide monetary liability where health is impaired as a result of travel agent or tour operator actions or omissions.

Individual versus collective perspectives on travel health

A perspective offered by Bradley (2001:xv) is that of the differing roles of individuals and society in travel health, something he refers to as *“the*

public/private ambivalence” that exists both within the field and towards it. He notes that travel medicine is preventive medicine and currently focuses on the individual needs of tourists, yet argues, “*prevention is as much an action of society as of the individual*”. This is a perspective that is supported by the field of public health which the DH (2003: no page number) defines as “*the science and art of preventing disease, prolonging life, and promoting health through the organised efforts of society*”. This definition could equally apply to travel health services, and supports Bradley’s view of the need for an organised societal approach to the field of travel health. Globally, the need to protect public health is recognised in the *International Health Regulations* of the WHO (WHO, 2005; Waner *et al*, 2000; Hardiman and Wilder-Smith, 2007b; Fricker and Steffen, 2008).

Bradley argues that two environmental changes occur because of travel. The traveller rapidly changing their environment has implications for that individual, but an environment that is changed due to the impact of travel and tourists has wider cultural, health and ecological implications. There are embryonic attempts at policy-making occurring in the UK, but these cannot claim to be a systematic approach to social and health policy in this field, and the separate examples do not ‘join up’. For instance, the FCO (2003) launched the *Know Before You Go* campaign, an attempt to educate travellers about the social risks of travel, such as the need for health insurance and awareness of drug and alcohol laws abroad. This was in response to the growing workloads of embassy and consular officials dealing with UK travellers in trouble of various kinds. However, the FCO sits in the Home Office, which is a different government office from an initiative funded by the Department of Health, the National Travel Health Network and Centre (NaTHNaC, 2003). At general practice level, travel health is a low priority – there

are no policy drivers to encourage activity, and it is invisible within the Quality and Outcomes Framework (QOF) system. Potential for a co-ordinated societal approach to travel health is not yet realised.

The new field of travel health is therefore vulnerable: it is in competition with other demands for DH funding, and needs to be convincing in its efforts to address societal and global health issues, and not just the holiday needs of short-term tourists. NaTHNaC's partnership with the HPA is a strategically valuable one as Bradley (2001) argues that in its maturation, travel health must consider the whole range of human migration in relation to health. Certainly the modes of travel and health needs of long-term travellers (stays of over 3 months), returning expatriates, forced migrants, refugees, aid workers and military personnel pose very different risks to individual and societal health than those of the short-term tourist. Bradley acknowledges this complexity: people expect a nationally agreed approach to the need for vaccinations and advice on foreign travel, yet also to receive an individually tailored pre-travel health consultation.

Travel health clinics

A telephone survey of Canadian travel medicine clinics by Keystone and Tessier (2003) identified several factors in common with UK general practice provision, including a lack of clinical practice guidelines and education for travel health professionals. However, there are notable differences between Canada and the UK. Canada has only a few hundred dedicated travel clinics, whereas nearly all UK general practices offer some level of travel health service. In Canada it is a doctor who makes decisions on interventions such as vaccination and malaria chemoprophylaxis, and a nurse administers them on the doctor's orders. Carroll *et al* (1998) conducted a questionnaire-based survey of 3,900 general practices in

the UK (with a response rate of 37 per cent), which indicated that 93 per cent of practices offered a pre-travel health advice service, with the majority of work conducted by nurses, 98 per cent of whom assessed, advised and immunised travellers. Hoveyda *et al* (2004) found 97 per cent of nurses and only three per cent of general practitioners (GPs) managed travel health in a 2004 study in the UK.

In a survey of European travel medicine clinics that did not include UK general practice provision, Rodriguez-Redington (2001) noted that clinic activities varied broadly between countries. One variation was found in whether health advice was given in addition to vaccinations. In Switzerland, Norway, Luxembourg, Spain and Finland 85 per cent of travellers received advice, whereas in France, Sweden and Germany the rate was 55 to 85 per cent, and below 55 per cent in Denmark, the Netherlands, Belgium and the UK. Most advice was given by a doctor, 25 per cent came from a nurse and 10 per cent from a non-health qualified clinic employee. Less than five per cent of clinics offered a service to returning travellers.

Pharmacists are increasingly recognised as having a valuable role to play in the provision of pre-travel health advice (Hind *et al*, 2008). Kodkani *et al* (1999) conducted a telephone survey of Swiss pharmacists, finding both their engagement with travellers and the quality of their advice to be 'satisfactory', although this subjective view can be challenged because no agreed standards exist as to what would constitute 'satisfactory' advice. For instance, only 31 per cent gave accurate advice on malarial protection to travellers to Kenya, where the most serious form of the disease *Plasmodium falciparum* exists, which seems a low threshold for 'satisfactory' care.

Hill (2001) gives an overview of travel clinics in the US and Canada, and argues a case for dedicated, specialist clinics rather than a service fitted into general practice facilities. This may well have implications for the future delivery of pre-travel health services in the UK because David Hill wrote this while Professor of Medicine at the University of Connecticut, but later became the Director of NaTHNaC, the organisation funded by the DH to impact upon travel health in the UK. Hill noted the growing role of nurses as providers of advice in both North America and the UK, but also commented on the lack of regulation and quality assurance, and the need for provider training. As NaTHNaC's work has developed, evidence of how quality standards and training have improved practice is emerging (Bryant *et al*, 2008).

There is growing provision of travel health clinics in the private sector in the UK, all of which offer pre-travel vaccinations, many offer comprehensive assessments of travellers' risks and needs, and offer advice as well as vaccines, and some complete the circle by offering post-travel advice, examination and clinical investigations, treatment and referral. They can be found through *Yellow Pages*, the Internet and other sources such as the ISTM, which offers international marketing of clinics on behalf of members (ISTM, 2009b). Examples of private clinics include Nomad, Interhealth, and The Fleet Street Clinic. Rodriguez-Redington (2001) noted that Air France and British Airways were the first airlines to set up travel health clinics for their passengers, although British Airways no longer do so. Medical Advisory Services for Travellers Abroad (MASTA) own Britain's biggest network of travel health clinics, and nurses can become franchise holders (Nursing Times, 2003). Another growing trend is for advice to be accessed online by using sites such as Fit for Travel (Health Protection Scotland,

2009a), which is an NHS service. There are links to the Malaria Reference Laboratory and NHS Direct who both offer telephone advice for travellers.

Pre-travel health advice and immunisation is increasingly recognised as a necessary specialist service throughout the world, but methods of service delivery vary between countries and within the UK (Farren, 2002). Furthermore, Farren argues that travel health should remain within the NHS because of public health implications in both pre- and post-travel screening, e.g. relating to tuberculosis.

There are also concerns that services operate largely without regulation, agreed levels of service or recognised educational requirements of providers. Bauer (2002) calls for better quality pre-travel health care, such as the provision of specialist clinics, in Australia. Ruis *et al* (2009) describe the Dutch register of travel health professionals as showing indications of improved levels of knowledge since specialist registration became available.

2.2.5 The current state of research

As an emerging speciality, travel health exhibits both gaps and strengths in its evidence base. Certainly there is a longer history and a vastly greater number of papers on tropical and infectious diseases than there are on travel health as a service, or on non-infectious causes of ill health. In the UK, the field of travel health is aided in its development by the already established institutions such as the London School of Hygiene and Tropical Medicine, the Royal Free Hospital, the Liverpool School of Tropical Medicine, the Faculty of Travel Medicine within the Royal College of Physicians and Surgeons (RCPS) (Glasgow), and other specialist centres which can support new research. Other supportive structures to its development include the WHO (2002), and to some extent, government

departments (DH, 2001a; FCO, 2001). There is also a wealth of pharmaceutical company research into vaccine development and use, although it has been acknowledged that vaccines can prevent only a small fraction of the ill health occurring in UK travellers abroad (Hoveyda and Behrens, 2003; Kassianos, 2001). McIntosh (2008) reviewed the topics of articles in the three main travel medicine journals, and found that malaria and vaccine-preventable topics predominated, with little written about, or evidence provided for, what constituted 'best practice'. This would support a view that topics of relevance to the pharmaceutical industry are more likely to attract funding for research.

The surveillance of travel-related morbidity and mortality poses particular difficulties within travel health, but the body of knowledge is now becoming established. The long history of recognising the relationship between infections and travel should not mask the fact that people travelling from industrialised societies to developing countries do not usually die of infectious diseases. The implications of findings from the literature for this study are that the scale of mortality and morbidity associated with travel make pre-travel services worthy of research. There are indications and assumptions that pre-travel advice and interventions have the potential to prevent deaths, which need further testing. The importance of checking the condition of people with pre-existing health problems prior to travel is stressed, but more evidence is needed. There is also much expert opinion on what should be covered in pre-travel consultations, but little attention given to the quality of the consultation itself.

2.3 Quality in health care

2.3.1 Introduction

'Quality' is a ubiquitous word that appears in most health policy documents of the last decade. The literature search outlined in section 2.1 identified these documents from key words and combinations such as "quality" and "health", together with publications relating to clinical governance. "Quality" and "models" identified further papers, and a total of 118 papers were initially identified for further review.

In *High Quality Care for All* the DH proposed that all providers of NHS care should produce quality accounts to provide the public with information on the quality of care they provide (DH, 2008). In travel health, practitioners are exhorted to provide high quality care too (Bauer, 2002; Willcox, 2006; Chiodini, 2008; Ruis *et al*, 2009). However, quality is a difficult concept to define, and has many facets. This part of the literature review considers what quality is, and why it is so prominent on the health care agenda today. The concepts of patient safety and risk management were selected from the different facets of quality for particular attention because they are referred to within both travel health literature and in studies relating to consultations. Different models of quality are identified and appraised, and a rationale for selecting Donabedian's *Structures, Processes, Outcomes* framework is presented.

2.3.2 What is quality?

Definitions and ownership

A globally comprehensive definition of quality is elusive, as it is a contested concept. The concept of quality can be traced back to ancient Greek philosophy, in which the nearest definition is translated as 'excellence'. It is interesting to note

that 'quality' and 'excellence' are used often interchangeably in government health policy (DH, 1997; 1998a). Smith (1986) referred to total quality paralysis to describe the inertia of managers caused by attempts to define quality and the myriad of initiatives used to create it, and Scally and Donaldson's (1998) introduction of clinical governance as the way to improve the quality of health care, fails even to attempt a definition of quality. The lack of definition at a time when improving quality was being planned as a statutory obligation is perhaps surprising. It duly became law through the Health Act 1999 (DH, 1999), which states that it is the duty of each Health Authority, Primary Care Trust (PCT) and NHS Trust to put and keep in place arrangements for monitoring and improving the quality of health care.

Chambers and Wakley (2000) illustrate the ways in which health care workers emphasise the need for a quality care process or outcome relevant to their own role. So a surgeon will concentrate on reduced waiting lists, but an anaesthetist, on the availability of intensive care beds. A physician will require clinical freedom to choose and use pharmaceutical products; a physiotherapist will need specialised equipment. Social workers wish to see social mechanisms to aid coping and caring, whatever the illness; health and social service managers need to address cost containment. Defining 'quality' in a way that gives priority to a single view may therefore not actually be best for the holistic care of patients.

Others also question the need for an absolute definition because of its complexity, changeability and subjectivity (Donabedian, 1980; Buchan *et al*, 1990; Attree, 1993, 1996; Kemp and Richardson, 1995). *Quality in General Practice*, by Greenhalgh and Eversley (1999), recognises the difficulty of defining quality, as it is not a fixed and stable concept but subject to change as new evidence becomes

available, and can be interpreted differently according to political and subjective contexts. Despite the debate about what quality is, or even what primary care is, Greenhalgh and Eversley (1999) came closest to a definition when describing 'good' primary care as being "...*accessible, ongoing, comprehensive and coordinated front-line care that improves well-being, extends life expectancy and keeps people out of hospital where appropriate*" (p.78).

Donabedian's (1982) contribution to the definition debate is widely held to be that quality consists of the interrelated systems and actions that make up the framework of criteria divided into structure, process and outcome elements of a quality service. What is less often quoted is his view that quality is so diverse that neither a single concept nor a single measure is applicable (Donabedian, 1980).

There appears to have been a slow recognition of the importance of the user's perspective on health care, and reasons lie partly with the difficulties in measuring patient satisfaction with any degree of reliability and validity. Entwistle *et al* (1996), Thomas and Bond (1996) and Ryan *et al* (2001) all address the methodological difficulties and flaws in seeking to involve patients and service users in meaningful ways, and the lack of guiding models. The work of Stewart *et al* (2003) identified the need for the agendas of both the patient and the doctor to be addressed if quality is to be achieved. As this relates closely to the consultation in which they meet, the concept of patient-centredness is discussed more fully in section 2.4 *Consultations*.

2.3.3 Why is quality important?

If, as Idvall (1997) claimed, Florence Nightingale's work can be considered the philosophical start of quality initiatives, it appears that very little progress was

made for another century until nurses in the US started to become research-active as a profession. Orlando's work on nursing between the 1950s and 1970s is claimed by Hallett (2002) to be the start of quality awareness with the patient central to the nursing process of assessment, planning, implementation and evaluation of the care given. It is interesting that the quality movement was activated by nurses, the medical profession still being rooted in the business of cure, not care, and generally not prominent during the first debates about quality. One notable exception during this period was Avedis Donabedian, an Armenian professor of public health. His work on the *Structures, Processes, Outcomes* framework of health care evaluation remains a central influence upon the field of health care quality today.

Efforts to achieve high quality care have since continued to receive attention for a number of reasons. Anti-medicalism and critiques of health care are ongoing (Illich, 1975; Cowen, 1994; Petit-Zeman, 2005), and the needs for greater health literacy, illness prevention, and care outside of hospitals have featured in successive health policies. High-profile NHS disasters and errors, public perceptions of declining standards of care, and rising costs of clinical negligence claims have all prompted closer scrutiny of care quality (Wilson and Tingle, 1999). There are demographic changes such as an ageing population in need of long-term care and NHS staff shortfalls (DH, 1998b), which also contribute to a renewed evaluation of care standards.

Quality is therefore established as an important concept for health care today, driven by public and professional concerns, and reflected in the language of health policies. One means of shaping policies, or of interpreting and putting them

into practice, is through the use of models. These key representations of quality are the subject of the next stage of the literature review.

2.3.4 Concepts and models of quality

There appears to be much greater consensus on the concepts that make up models of quality, than on the definition. Donabedian's paper, *The Seven Pillars of Quality* (1990), is the recognisable source upon which several quality models are built, such as the widely used temple model of clinical governance (Hallett, 2002). The seven Donabedian 'pillars' are:

1. Efficacy: the ability of care, at its best, to improve health;
2. Effectiveness: the degree to which attainable health improvements are realised;
3. Efficiency: the ability to obtain the greatest health improvement at the lowest cost;
4. Optimality: the most advantageous balancing of costs and benefits;
5. Acceptability: conformity to patient preferences regarding accessibility, the patient-practitioner relationship, the amenities, the effects of care, and the cost of care;
6. Legitimacy: conformity to social preferences concerning all of the above; and
7. Equity: fairness in the distribution of care and its effects on health.

These concepts appear elsewhere in the literature, refined and developed by various authors. For instance, Maxwell's (1984) six dimensions of quality are again specific to health care, and Klein's decalogue, or "...*the ten commandments for the NHS*" (Klein, 1998:551) combine Donabedian's and Maxwell's concepts, and were influential because they originated under the auspices of the King's Fund, an independent charitable organisation that works on improving the health care system in England.

There are many models of quality, but delineation can be fuzzy or overlapping, both between the models themselves, and the industries or sectors in which they are used. Furthermore, concepts that are sometimes claimed to be models, or representations of quality, are actually no more than tools used to measure or evaluate some aspect of quality, e.g. audits, performance indicators and standards. Walshe (2009:153) refers to the “*pseudoinnovation*” that appears to underlie this plethora of quality improvement models, many of which are the same. In the apparent absence of any uniting meta-theory of quality, the literature was searched for those most applicable to health care.

Eleven models were identified using the key words “model” and “quality” separately and in combination. They were appraised for evidence of their beneficial application in health care, for their ability to holistically represent a service and its stakeholders, and for their face validity of applicability to pre-travel health consultations. The models were Deming’s (1986) Plan-Do-Check-Act (PDCA) model; total quality management (TQM), total quality improvement (TQI), total quality systems (TQS) and continuous quality improvement (CQI), (Harris and Harrington, 2000; Stahr, 2001; and Moullin, 2002, respectively); SERVQUAL (Service quality), (Parasuraman *et al*, 1985), and SERVPERF (Service performance), (Cronin and Taylor, 1992); the European Foundation for Quality Management (EFQM) Excellence model (EFQM, 2003); Attree’s conceptual model of quality care (1996:26); the PIER (Plan principle functions, Identify indicators, Evaluate performance, Respond) model developed by Wilson (1992); and Kitson’s (1990) work on the Dynamic Standard Setting System (DySSSy).

Several of the models bore striking resemblances to the concepts proposed by Donabedian (1980, 1990). At their centre were criteria to examine structures,

processes or outcomes – but not always all three. Some did so too simplistically, others appeared too complex or unclear in their attempts to claim an overarching applicability. Greenhalgh and Eversley (1999) warned against models that are only partial, or contain performance indicators that are not valid indicators of the whole service quality, or transferable between different specialisms.

In reviewing the various models developed to depict how quality in health care may be achieved, a return was made to Donabedian’s *Structures, Processes, Outcomes* framework that underpins many later models. Donabedian’s (1966) work had roots in industrial concepts of input, throughput and output applied to production lines systems, but his adaptation to the provision of health services was clever in its simplicity, and clearly pervades most models subsequently developed specifically for use in health care delivery (Figure 4).

Figure 4: Donabedian’s framework of *Structures, Processes, Outcomes* (after Hallett, 2002).

Structure	⇒	Process	⇒	Outcome
Professionals	⇒	Diagnosis	⇒	Clinical
Facilities	⇒	Therapy	⇒	Functional
Technologies	⇒	Interaction	⇒	Perception
Organisations	⇒	Leadership		
Resources	⇒	Management		

Structure refers to tangible items that make up the environmental, physical, financial and organisational resources required to deliver health care, such as equipment, buildings, finances and staffing levels. Structure often dominates studies of quality, probably because of the relative ease with which its facets can

be measured (Irvine and Irvine, 1996). Florence Nightingale's earliest quality improvements tended to centre around structures such as the need for more staff, a clean ward environment and improved nutrition for patients (perennial requirements, it seems). Although important, it is the balance of all three components of the model that contribute towards quality; one on its own skews the holistic approach favoured today (Greenhalgh and Eversley, 1999) and provides an incomplete assessment of the quality, or worth of a service. Irvine and Irvine (1996) claim that structural components have only a tenuous link with a doctor's performance, which is a process, yet in considering this point in the light of the travel health consultation, structural components vary in their importance. A traveller may well be able to judge the quality of the consulting room décor and ambience, although these will have little, if any effect upon the quality of clinical care and advice received. The traveller is unlikely to be aware of national guidelines for maintaining 'cold chain' integrity – the assurance that a vaccine has been kept at its optimum temperature from the point of manufacture, through transportation and deliveries between wholesalers and pharmacies, to general practice and right up until the moment it is administered to the traveller (Salisbury *et al*, 2006). Structural factors such as an appropriate pharmaceutical refrigerator, temperature probe for recording minimum and maximum temperatures, and a record book and protocol *should* be in place if standards of clinical quality are to be met, but the traveller is in a poor position to be able to know of, or judge these.

Process refers to the actions and behaviour of the staff and their interaction with the patient/client; it is what people *do*, and includes assessment, planning and delivery of care, education and information provision, communication, documentation and evaluation. There may be many complex separate processes performed in order to deliver an episode of care, and today the dyadic, two-way

nature of the processes between health care professional and client are seen as being of paramount importance (Usherwood, 1999). Donabedian (1989) argues that the processes and consequences of care are dependent upon normative behaviour in relationships and in the practical application of science. Quality then becomes a reflection of what, at that point in time, is regarded by society as the current ability of science or technology to deliver care, coupled with society's view on how relationships between health care professionals and patients should exist.

Outcomes are the results of such interventions and interactions, e.g. the changed health status of the patient or client, an improved level of knowledge, different health behaviours or the level of satisfaction with the service. Donabedian's (2003) broad view of health enables outcomes to include social and psychological changes as well as physical ones. Changes can be for the better or for the worse, and it is important, when judging quality, to include negative outcomes such as harmful effects of treatment or dissatisfaction with care as these are levers for quality improvement and risk management in the future. Irvine and Irvine (1996:38) describe outcomes as "*...the final arbiter of quality*", and classify the "*five Ds*" as the potential outcomes of health care: death, disease, disability, discomfort and dissatisfaction. In fields such as travel health, where the aim of the consultation is to prevent the five Ds, perhaps it is their absence that should be recorded as an outcome.

Outcome does signify a somewhat final decision on quality that may not always be ascertainable. For instance, the aim of the travel health consultation is to prevent an infection such as yellow fever or an adverse event such as sunburn. However, definitive outcomes such as the absence of yellow fever or sunburn in the returning traveller are difficult to attribute *only* to the processes within the

travel health consultation, which cannot *prove* they caused the outcome. There are many variables coming into effect when people travel abroad, including their previous knowledge, or rejection of advice. Intermediate outcomes such as the offer of intervention or the degree of knowledge gained as a result of a process of care or intervention are now accepted within the fields of health promotion, because outcomes in this field are of a different nature to those when treating sick people (Ewles and Simnett, 1992; Naidoo and Wills, 2000).

The great strengths of Donabedian's framework are that it is now widely known and accepted, relatively easy to use and adapt, multidisciplinary, comprehensive in its coverage of service delivery and inclusive of both subjective and objective factors. It is surprising that it has not been applied to the field of travel health before, but this therefore presents an opportunity within this research.

2.3.5 Clinical governance

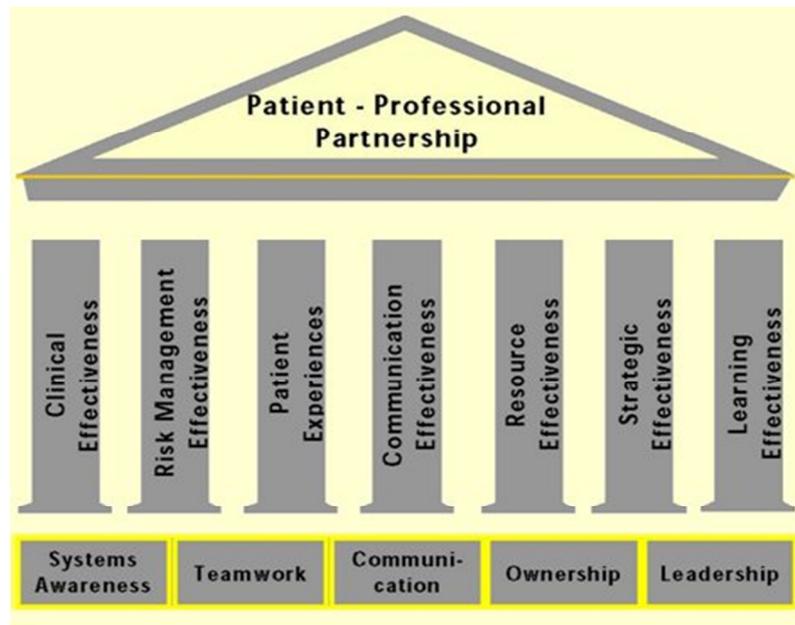
Donabedian's work is also key to understanding the advent of the conceptual framework of clinical governance, which appears to have subsumed some models and relegated others to obscurity. Scally and Donaldson's (1998) article heralding clinical governance has been regarded in the literature as the seminal introduction to the subject, aided no doubt by its publication in the *British Medical Journal* (*BMJ*) celebrating the 50th anniversary of the NHS.

The authors have been criticised for not providing a definition of clinical governance, and their paper has been described as an essay "...full of the 'what' but short on the 'how'..." (Goodman, 1998:1725). Other papers appearing shortly after Scally and Donaldson's pronouncements focus on various singular aspects of clinical governance, and this is both a strength and a drawback of how this new

concept was covered in the literature. There is so *much* to clinical governance: it is intended to work at different levels and is a responsibility for individual practitioners, teams and whole organisations. It has many component parts such as risk management, evidence-based practice and patient experience, any of which could be analysed on its own, but all interrelate and connect into a whole, the main function of which is to improve the quality of clinical care. The problem is that 'quality' is difficult to define; it is multi-faceted and can be viewed both subjectively and objectively.

The temple model appears to be a composite design to illustrate clinical governance. It has not been possible to accredit it to a specific author, but its contents arise from Donabedian's previously validated work. The seven pillars and five foundation stones provide the component parts or concepts, all designed to support the roof which represents the all-encompassing importance of the partnership between patient and professional (Figure 5). Clinical governance is the means by which quality improvements, encompassing quality control, assurance and improvements, are to be delivered within the NHS. It has the potential to make an abstract concept such as quality become a concrete reality. This is as well, because clinical governance has been imposed upon the NHS by legislation, and is therefore not an optional route either for individuals or for organisations. Perhaps the risk is that a model such as the temple can be subdivided into discrete parts. This may be helpful in making a huge task manageable, or it may mitigate against quality because of a reductionist approach, attending only to some, not all parts.

Figure 5: The temple model of clinical governance (after Hallett, 2002).



Risk

Despite caution about reductionism, one pillar – that of risk management effectiveness – is the focus of much attention in health care generally, and is pertinent to the study of travel health. Berry (2004) notes that definitions of risk vary, and in keeping with other authors (e.g. Gadd *et al*, 2003, and Hillier, 2006), describes two broad approaches to defining and conceptualising risk.

Firstly, a positivist approach is based on an assumption that risk can be objectively measured. A statistical formula - $risk = probability\ of\ incident \times severity$, is in current use as a means of quantifying risk (Collin and Lee, 2003; Harrabin *et al*, 2003). It echoes the work of Kaplan and Garrick (1981:12), whose work on the quantitative definition of risk offered the “*set of triplets*” questions about what could go wrong, how likely is it, and if it happens, what are the consequences? Where there is consensus on the certainty of numbers to populate formulae, this approach offers a useful tool for interpreting risk. However,

scientific evidence is often limited, which weakens the case for using a positivist approach.

A second approach takes into account the social constructions of risk. Collin and Lee (2003) recognised that there are often conflicting concepts – is the risk technical, economic, psychological, cultural or physiological in character? How risks are framed is often subjective, and this can skew objective measures. Caan and Hillier (2006) also recognised that in this social construction of risk, efforts to assess and manage risk can be political, not just scientific. This builds on the work of Douglas (1966:xi) and the way in which “...*impaired health as the threat*” is used to exert power, starting with parents who cite the risk to their child of not growing, or not having curly hair as a result of not eating a particular food. For Douglas, risks are cultural phenomena, embedded in the values and attitudes that influence behaviour. Green (1997) expanded upon this concept of the social construction of risks, which together with quantitative tools such as epidemiology, could be combined to gain a more comprehensive understanding of risk.

Gadd *et al* (2003) attempt to unify definitions of risk by clarifying constituent concepts. They identify hazards as being a situation or object capable of causing harm, whereas risk is the likelihood of that harm occurring within a period of time. Risk assessment has two components – firstly, an estimate of the likelihood of occurrence, and secondly, the severity or consequences of that occurrence. Risk assessment aids decision-making on what interventions can be taken to remove, minimise or modify risk – collectively called risk management. However robust the data is on quantifying hazards and their occurrence, a value judgement is always required on how much that actually matters. This involves consideration of whether that risk is to society, or to an individual.

Here lay problems associated with risk and travel. Epidemiology is beginning to provide data on risks, but on a population-wide scale. The pre-travel health consultation is concerned with individual risk assessment (RCN, 2007). It appears unclear from the literature about how practitioners make the transition from population risks to individual risks in pre-travel healthcare, an issue of risk communication, which is addressed shortly. A second point is that decisions on risks to the many or the few are an echo of utilitarian ethical principles which often underpin healthcare decision-making, particularly on funding. Again, an example is found in the costs of travel-related vaccines: typhoid and hepatitis A vaccines are free to travellers, funded by the NHS because of the potential of these infections to cause epidemics. They are also relatively common, unlike rabies, yellow fever or Japanese encephalitis. These are low frequency but high impact infectious diseases affecting individuals, and vaccination is charged for as a private service (Salisbury *et al*, 2006). Utilitarian principles (the greatest good for the greatest numbers), together with other drivers, feature in NHS efforts to improve health and healthcare quality.

The thrust of the NHS quality framework is for setting, delivering and monitoring standards through clinical governance activities (Nicklin, 2005). Guidance from the National Institute for Health and Clinical Excellence (NICE), the National Patient Safety Authority (NPSA) and National Service Frameworks (NSFs), have, over recent years, contributed to assessing and managing risk in several disease or client groups, although none relate specifically to health issues associated with travel. Haynes and Thomas (2005) argue that professional codes of practice help to promote performance and that risk management is therefore a defined responsibility for health professionals. In the absence of high profile travel-related health guidance at Department of Health level, it could be argued that professionals within this speciality are accepting their responsibility to improve

performance. For instance, the National Travel Health Network and Centre (NaTHNaC) have developed standards around the prevention of yellow fever (NaTHNaC, 2010), and the Royal College of Nursing (2007) have published the competencies expected of nurses working in travel health care, in which there is a strong focus on what risks to assess.

These risks mainly relate to dangers the individual may encounter, particularly those of infectious diseases, with less focus on public health risks. For instance the incidence; diagnostic and therapeutic issues, and personal consequences of acquiring an infectious disease for the individual receive more attention than the risk an infection poses to society, i.e. by its potential to cause an epidemic (e.g. Jong and McMullen, 2003). The range of risks is wide but can be categorised as:

1. general considerations such as travelling with a chronic condition
2. risks related to the mode of travel, e.g. thrombolytic risk
3. environmental health risks such as heat and cold injury, altitude sickness
4. injuries and violence
5. infectious disease risks (non-vaccine-preventable; excluding sexually acquired infections)
6. infectious disease risks (vaccine-preventable)
7. malaria
8. exposure to blood and body fluids (including sexual behavioural risks).

(Committee to Advise on Tropical Medicine and Travel, 1999; Department of Health, 2001a; Centres for Disease Control and Prevention, 2005; World Health Organisation, 2005). These four documents addressed risk comprehensively and were later selected for method one documentary analysis. See Chapter 4 *What do the experts say?*

The rationale behind such drives towards risk assessment and management is to improve the overall quality of care and patient safety, but there is an additional impetus. Litigation costs associated with medical error and poor risk management also drive the need for clinical governance activities. Sandars (2005) claims that there is little extensive research on the frequency and nature of medical errors in general practice in the UK, a view supported by Price *et al*, (2007), and Childs (2008). Sandars drew on estimates of errors occurring in the region of five to 80 per 100,000 consultations. These did not just involve health professionals – insistence by patients for non-ideal treatment options, and the roles of administrative staff were also implicated. Citing figures from the Medical Protection Society database (a professional indemnity organisation), 19 percent of risks to patient safety arose from prescribing errors. Practice nurses were involved in 3.2 per cent of errors, with injections and inappropriate advice among the most risky activities – these also comprise the two main procedures within the pre-travel health consultation. Additionally, breaches of patient confidentiality are described by Sandy (2005) as frequent problems requiring risk management. Such negative consultation outcomes can be prevented by systems to protect confidentiality (inferring a need for processes), as can a well-planned environment (inferring a need for structures). Here, Donabedian's framework of *Structures, Processes and Outcomes* is implicit in organising an approach to care delivery.

An initial task of the pre-travel consultation is to assess and identify risks to health, although there are indications that the quality of risk assessment is poor. Bauer (2002), Simons (2003) and Gushulak *et al* (2007) found distinction was not made between possibilities (hazards) and probabilities (likelihoods) when advising travellers, giving no sense of scale or proportion to the different risks.

Another task of the pre-travel consultation is that of risk management, e.g. to minimise those risks through interventions such as vaccines and medicines. Their administration or recommendation relates to clinical governance because patient safety depends upon the risk assessment that leads to the clinical decision-making about their use. From the principle of non-maleficence (doing no harm), to concerns of iatrogenesis, the literature now contains many voices on patient safety (Illich, 1975; Hendrick, 2000; World Alliance for Patient Safety, 2009), with particular emphasis on acute care and medical errors. Reason's (2000) work on individual and systemic reasons for breaches in patient safety has been particularly cited. However, there is as yet little to link the concept and practices of patient safety with pre-travel health care.

Risk reduction to travellers is also aimed for through the provision of information, advice and education in pre-travel health consultations. The quality of these interventions, and evidence that they work, is beginning to be questioned in literature within the field of travel health (Hayles, 2005; Rombo, 2005). Elsewhere, the ways in which health professionals 'frame' risks to patients, or use decision-aids to help people to choose risk-reduction strategies, is gaining interest (Edwards *et al*, 2002; Coulter *et al*, 2006; Elwyn *et al*, 2006). It is also noted that the conceptualisation of decision-making varies between professions (Buckingham and Adams, 2000a), and it can be difficult for nurses to integrate managerial and clinical decision-making (Buckingham and Adams, 2000b).

Risk communication

The concept of risk communication, referred to earlier in this section, is attracting increasing attention in health (Berry, 2004; de Sa *et al*, 2009; Visschers *et al*, 2009) and in travel medicine (Rombo, 2005; Bauer, 2005; Willcox, 2006; Behrens,

2009). Risk communication is defined by Hillier (2006; adapted from earlier work by Covello *et al*, 1986) as a purposeful exchange of information about risks between interested parties. It should include the level of risk, its significance, and ways in which it can be managed or controlled. This encompasses the triad of risk assessment concepts: hazard-likelihood-consequences; together with ideas of risk management. The purpose of risk communication is to enable people to avoid harm, which involves shifting their perceptions (Caan and Hillier, 2006). It is far from simple:

“...risk communicators must recognise and overcome a number of obstacles that have their roots in the limitations of scientific risk assessment and the idiosyncrasies of the human mind”. (Slovic, 2000:182).

Caan and Hillier (2006) acknowledge the political nature of risk communication, as well as the scientific one; problems with decision-making because people cannot detect omissions in the information they receive; unequal weight given to positive and negative aspects; poor quality of resources used to communicate messages (e.g. lack of visual imagery, or too high a level of language). Messages are infrequently solution-focused, a problem also identified by Collin and Lee (2003), where information for travellers and migrants was often negative, focused on morbidity and mortality, especially relating to infectious diseases.

Douglas realised that *“dangers are manifold and omnipresent. Action would be paralysed if individuals attended to them all; anxiety has to be selective.”* (1966:xi). Breakwell (2007) builds on this, arguing that risks are increased or amplified when they are poorly understood – whether that is at the level of the individual, the organisation or at a societal level. But how travellers conceive their risks, or to what extent nurses interpret and present risks during the pre-travel consultation, is not well addressed.

Risk, patient safety and decision-making are therefore three interlinked concepts arising from clinical governance, and tie together the topics of travel health, quality care and the consultation that are covered by this literature review.

2.3.6 Conclusions

This section began by asking the question: what is quality, and accepted the view that quality as an entity is too nebulous, too capable of shifting itself within time, culture and context to be reduced to a single definition. The literature review of NHS and other health care sectors revealed the need for a new approach to understanding the meaning of quality. What are definable, however, are the concepts that *contribute* to a sense of quality, the perspectives of different groups and the dimensions in which quality can be said to be present or absent. The work of Greenhalgh and Eversley (1999) has been instrumental in recognising the complexities of exploring the meaning of quality, for the way in which they emphasise the need for the views of different stakeholders.

By analysing a range of quality models, a case for the use of the *Structures, Processes, Outcomes* framework was made because it has strong credibility elsewhere in health care, and offers the potential to organise data on the pre-travel health consultation in a way that will comprehensively allow analysis of the quality of this pivotal part of the larger travel health service. Crucially, it lends itself well to the aim of including the perspectives of different stakeholders. As the pre-travel consultation is the focus for research, the literature on consultations forms the next phase of the review.

2.4 Consultations

2.4.1 Introduction

The initial literature search for “consult*” uncovered a vast body of research and commentary on the medical consultation, but also non-relevant papers on, for instance, public consultations or consultants. Key word combinations such as “nurs* AND consultation”, narrowed the field considerably. Initially, the following numbers of publications were selected for review: 84 on consultations by doctors in general practice; 24 on consultations by nurses in any setting; 35 on health education techniques; and 12 on communication that appeared to relate to the style or model of consultation. From this initial work it emerged that many papers referred to the communication (interpersonal) skills that could or should be used within a consultation. This was not all that was being sought: there is a vast body of literature in nursing, medicine and health that relates to specific skills, and the search terms had to be clarified. What was needed at this stage were examples of consultation *models*, meaning the structure or overall design of the consultation that houses those communication techniques. An audit of reading lists for pre- and post-registration nursing, midwifery and health visiting programmes was undertaken as part of the literature review. It showed that only nine per cent contained any reference to texts or papers on consultation *models*, whereas communication skills references were contained in 50 per cent, and there were no references to either in 41 per cent of reading lists. With such confusion over what is an over-arching model, and what are the skills it might contain, the need for clarity and an examination of other attempts to develop new models is required. The search was therefore (paradoxically) widened to search for this narrower focus of the model or framework for the interaction, looking for examples from any branch of health care. (Further discussion on the confusion in the literature over terms such as model and theory is undertaken in Chapter 8.) Other terms were

checked as the research progressed, and further shorter searches were conducted for specific topics such as the use of recording equipment in consultations. The search for papers addressing consultations by nurses and other health professionals, and criteria for their inclusion, had to be widened because the initial results were weighted with medical papers. Sources that did not report original research were therefore searched because they provided reviews, opinions or discussion on nursing consultation content and style. Attempts to find papers closely linking key topics produced limited results. For instance, a search of the British Nursing Index (BNI) in January 2005 found 83 papers on travel, 169 papers on consultations, but combining these terms only produced three discussion papers.

The literature indicated that medicine almost universally uses the term 'consultation' to describe a meeting between patient and health professional which is characterised by being discrete, usually pre-arranged or booked, and limited by parameters of time or task. GP Out of Hours services use a prefix 'telephone consultation' to denote the use of telehealth care (NHS Choices, 2010). General practice nurses have adopted the term 'consultation' too, although less often the term 'appointment' may be used. This is a trend associated with other health professionals such as dietitians (Eastern and Coastal Kent NHS Community Services 2010), occupational therapists (Slorance *et al*, 2002), and physiotherapy (Imperial College Health Centre, 2009).

In other areas of healthcare terminology is more varied. For instance, NHS Direct use the term 'your call' for telephone advice and 'visit' to denote use of online services (NHS Direct, 2010). In other areas of nursing, midwifery and health visiting, terms vary even more, particularly in community practice. 'Visits' are in

common use (in the UK and elsewhere, for instance the US), as may be expected by services which provide care in home settings (e.g. Kendall, 1991; Elkan *et al*, 2000; Christie, 2005; Bidmead *et al*, 2007), sometimes in conjunction with the term 'intervention' (e.g. Luker, 1982; Kingston *et al*, 2001; Christie, 2005). However, the following terms were also found and were used to widen the literature search for relevant papers on models used to shape or frame the consultation:

- Appointment
- Approach to care
- Consultation; style of; model of
- Interaction
- Interview; motivational interviewing
- Intervention; brief intervention
- Meeting
- Visit

The search was further widened to use these terms in combination with nouns such as nurse, health visitor, health professional; and nurse-patient/client relationship, therapeutic relationship, interpersonal communication, and across different databases. An example of one search is shown in Figure 6.

Figure 6: Example of a search strategy and results: British Nursing Index database, 1994 - March 2010

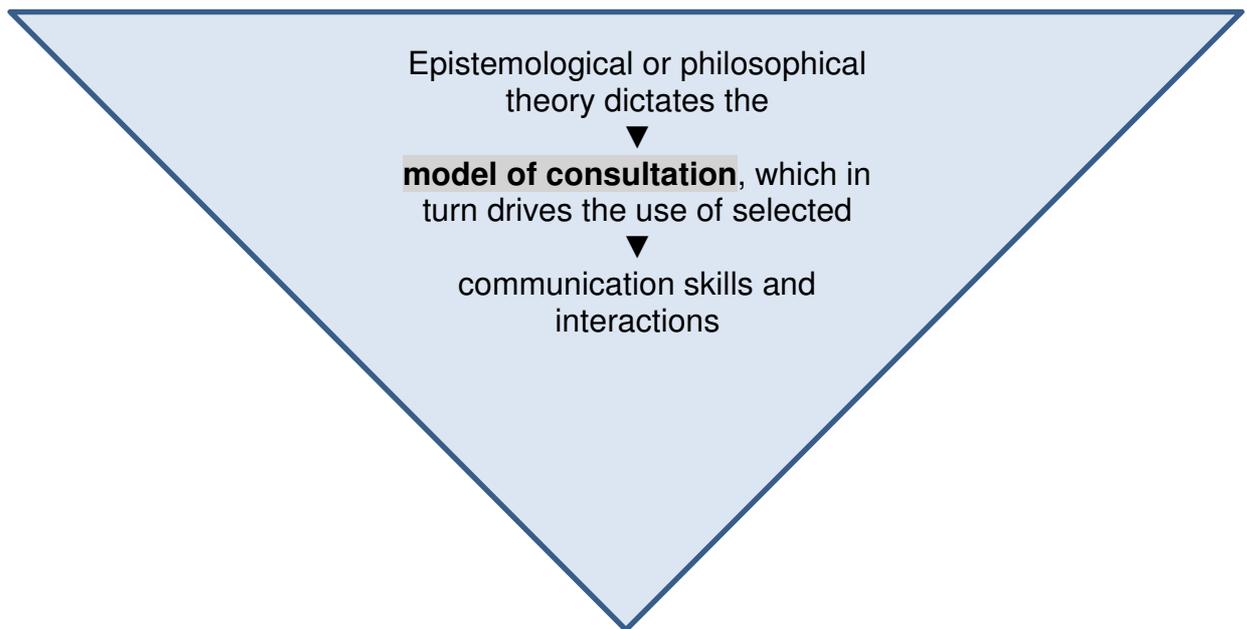
```
1  (consultation* or appointment* or interaction*).mp. [mp=title, abstract, heading words] (2216)
2  Nurse Patient Relations/ (3255)
3  1 and 2 (281)
4  limit 3 to (full text and yr="2005 -Current") (116)
5  from 4 keep 2-4,7,9,12-13,16-17,22-23,28-29,32,34,37,41,48,50,53,61,63-64,66,68-69,73,85,89,91,93,107 (32)
6  Communication/ (2585)
7  1 and 6 (196)
8  limit 7 to (full text and yr="2007 -Current") (31)
9  8 not 4 (23)
10 from 9 keep 14-15 (2)
11 Health Visiting/ (1122)
12 1 and 2 and 11 (4)
13 limit 12 to full text (3)
14 5 or 10 (34)
15 from 14 keep 1-34 (34)
```

The number of medical papers indicated that a great deal is known about the 289 million consultations that take place in UK general practice each year which, according to the NHS Information Centre (2007), equates to five visits per person to their GP. In 1995 one in five consultations was undertaken by a nurse whereas by 2007 it was one in three. The review of the literature also revealed just how much there is still to learn about the consultation in the context of nursing practice, and specifically, the pre-travel health consultation.

The search for the comparatively few non-medical models of consultation stimulated analysis of the different theories or philosophical approaches to the consultation, which in turn shape its model of delivery. For instance, the concept of supporting a family unit (not just an individual) underpins much of the work of health visitors and social workers. This philosophical approach is likely therefore to shape the structure and nature of their visits (length, place, participants, order or number of issues), and in turn cause practitioners to select their means of communication and interaction (e.g. listening, or style of questioning) accordingly

(see Figure 7). However, these are not well defined in the literature, and this issue is picked up again for discussion elsewhere in the thesis, and in Chapter 8 messages for academia.

Figure 7: Three levels of a consultation



An example of how indistinct they are can be found in a major nursing dictionary which defines a theory as:

A set of statements or principles devised to explain a group of facts or phenomena, especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena.

Whereas a model is:

A set of stated principles about nursing which gives professionals a way of formulating a plan of care, assessing its success and addressing any problems which arise from it. (Collin, 2007).

The somewhat blurred edges of these would benefit from further academic debate to develop the definitions and use of terminology in nursing research. However a working definition was needed for the purposes of this thesis. Kaplan (1964) argued from a philosophical perspective that if a 'model' was coextensive with a 'theory', then why use two words when 'theory' would do, and that distinction was necessary. Kaplan defined a theory as something from which it possible to learn about subject-matter; a theory states features about the subject-matter but does not exhibit those features itself – that is the task of a model. For example, in the Darwinian theory of evolution, individual species serve as models to exhibit and illustrate the theory. If a theory can be deconstructed to a causal focus level at which it can be said to state 'if x happens then y will result', then a model operationalises part or all of the theory. Communication skills and interactions are simply tools within that model. Specific communication skills and interactions (the lower part of Figure 7) were not within the scope of the search because the body of existing literature is already large and well considered in comparison to that on the models in which they are used. Whereas the literature on skills and interactions used in consultations is vast, it is the comparative paucity of *models* of consultation which created an intriguing gap in the literature and helped to inform the research and supported the anecdotal views and justification for research, as outlined in Chapter 1. The following section is therefore organised in a framework which displays the top level of Figure 7, the theoretical approaches to care. Within these, a search for models of consultations occurs: it is these that are of major

interest within this research project, and they are represented in the middle part of Figure 7.

2.4.2 The consultation: different theoretical approaches and their models

...the occasion when, in the intimacy of the consulting room, a person who is ill, or believes himself to be ill, seeks the advice of a doctor whom he trusts.

This is a consultation...

(Spence, 1949, cited in Balint and Norell, 1973, page number not provided).

This definition of the consultation is too limited for today's provision of health care. The consultation now takes place in environments other than the consulting room, for instance, in the patient's home, and it can be conducted by telephone or e-mail. The person may not be ill but seeking advice on promoting health and preventing illness. They can consult with a nurse or allied health professional as well as a doctor. The concept of trust has changed in a climate of greater awareness of medical fallibility, and the patient and clinician may never have met before to establish the trust that Spence refers to.

Regarding the purpose of the consultation, Usherwood (1999:116) identified it as a "*social institution*", recognising it as a creation of human society, not a 'natural' phenomenon, and cites Tudor Hart's work on the consultation having social meaning and value, that patients are co-producers of their health, not just consumers, and as such should have equal status with their health practitioner – both must contribute differently but equally to the production of health that occurs within the consultation. The concept of co-production has gained momentum more recently (Realpe and Wallace, 2010). Innes *et al* (2006) argue that within a consultation so many things happen on so many levels, and they can be studied from so many different perspectives (biological, psychosocial, sociological and others), that there exists no single unified model of consultation. The findings from

the literature reflect these different perspectives and philosophical underpinnings of consultations. The main approaches are set out below, and analysed for their potential contribution to developing the pre-travel health consultation.

The medical approach

The history of consultations has been well described by others (Cochrane, 1996; Thomas, 2005; Lakasing, 2007; Pawlikowska *et al*, 2007), following a route traced back to shamanism, care provision by religious orders and barber-surgeons. The 19th century witnessed the rise of the medical model and doctor-dominance within the consultation. The new 'medical model' (as it became widely known), emphasised the biological basis of the person, distinguishing particularly between the mind and the body. Three aspects of science grew in stature and explanatory reach for human illness and disease: anatomy, physiology and pathology. The causes of ill health came to be identified in terms of these perspectives, a reductionist approach that failed to properly acknowledge the influences and complex interactions of human emotions, environment and other factors recognised today (Jones and Porter, 1994). The work of Michael Balint (1957) heralded the beginnings of research into models of consultation: today it could be argued that the term 'medical model' more accurately describes a theoretical perspective because epistemologically it has a focus on physical systems that can individually be faulty and require medicine to diagnose and repair those faults. The term 'model', as used implicitly by Balint, more accurately refers to how such a medical perspective is operationalised in the consultation. For instance, a medical perspective is reflected in a consultation model in which the doctor is in charge and dominates the agenda, processes and decision-making. Within that model the doctor may commonly use 'tools' that further reflect its medical approach – e.g. closed questions on signs and symptoms, and authoritative statements telling the

patient what they should or should not do. The phrase 'medical model' is therefore a good example of how the terms theory and model are used interchangeably.

Some literature indicates that nurses copy the medical model, and perhaps this is unsurprising as there was also an emphasis on communication skills (tools) yet little on consultation models. Whether in hospital or community settings, nurses may be left to model their newly extended roles on those of medical colleagues, or are subconsciously socialised into doing so by the prevailing political and educational cultures operating within their health care setting. Other literature on the nursing consultation clearly, although not always knowingly, puts forward a medical model by assuming all patients are ill (Springhouse Corporation, 1998; While, 2002). Where this is appropriate, Bishop (2001), addressing the need for a consultation model for primary care nurses taking on minor illness diagnostic and management roles, uses Neighbour's (1987) five-step model because it advocates a patient-centred approach and can guide nurses whose clinical decision-making processes are, as yet, poorly understood (Thompson *et al*, 2005).

Kinnersley *et al* (2000) studied nurse practitioner consultations in general practice and challenged any assumption that the consultation styles of doctors and nurses can be clearly delineated. Interpretation in the nursing press was that nurses were moving towards a more authoritarian medical style, just when general practitioners were making great strides towards a more patient-centred approach (Anderson, 2001). This was not necessarily presented as a 'bad' trend because the nurses studied were nurse practitioners seeing patients presenting with a new illness, and therefore required a medical approach. These patients benefited, it is claimed, by having "*the best of both worlds*" as nurses combined medical and more holistic approaches within the consultation (Anderson, 2001:30).

Smith's work (2004) is heavily reliant on that of Kinnersley *et al* (2000), agreeing on the lack of delineation between the models of consultation adopted by nurses and doctors. Smith suggests that as these roles become increasingly blurred, a hybrid 'new' model can emerge, synthesising both medical and nursing models. This concept is worth further exploration via research and professional discussion, but the immediate limitations are that Smith is re-articulating previous work, does not identify *which* nursing model should be combined with the medical model, and has only explored the type of consultation employed by nurse practitioners engaging with patients who present with a (perceived) acute new health problem. Smith identifies the *Structures, Processes, Outcomes* framework for the consultation (without citing the originator, Donabedian), and advocates the Calgary-Cambridge guide (Kurtz and Silverman, 1996; Kurtz *et al*, 2003; 2005) as a preferred model, going on to expand upon the communication skills required by nurses.

Psychological approaches

Psychoanalytical models of consultation then emerged such as Berne's (1964), *Games People Play*. Berne built on the earlier work of Freud, contributing to an understanding of the consultation by analysing the transactions between doctor and patient. The emphasis was always on what the patient was doing however, and how the doctor could respond to avoid being manipulated, so it offered a somewhat reactive model. This decade also marked the rise of more person-centredness philosophies in policies within society, particularly in education and health care. The beginnings of patient-centredness within the consultation arose as part of society's view about how people should be treated, the downgrading of professionalism and the rise of liberal, individual influences, and it is a key concept addressed further on.

Building on counselling styles, motivational interviewing developed as a technique used in consultations, rather than a model of consultation *per se*. It is focused more towards a specific goal, unlike traditional counselling, aiming to bring about behavioural change (Rollnick *et al*, 2002). It has been adopted for use by health disciplines including nursing, particularly in addictive behaviours, and long term conditions (e.g. Dale *et al*, 2007). Rollnick and Miller (1995) distinguish motivational interviewing from brief interventions by several different criteria including the time spent with the client and the overall intention of the interaction. A similar approach, the brief, ordinary effective model (BOE) developed by Crawford *et al*, recognises the “*time-greedy*” nature of counselling-related models, and the time-limited nature of care systems today (Crawford and Brown, 2009:31). Cognitive behavioural therapy is another psychological approach which explores situations, thoughts, feelings and resulting actions. It is used by several health disciplines, perhaps most prominently by mental health nurses (Ekers *et al*, 2006). However, like brief interventions and motivational interviewing, cognitive behavioural therapy is a therapeutic technique rather than a model of consultation.

Biopsychosocial approaches

A philosophy of person-centredness continued to develop in the 1970s, with integrated biopsychosocial models gaining acceptance. Balint and Norell (1973) drew together critical perspectives on the consultation in *Six Minutes for the Patient*, further developing ideas on how to research the consultation, particularly the role of psychology within those six minutes of the average consultation. The over-arching model was still a medical one, focused on the sick patient, problem-solving and taking the doctor’s perspective. Becker and Maiman (1975) advocated the health belief model, the hub of which was recognition of the importance of the

patient's beliefs and attitudes. Engel (1977) further developed the concept of the biopsychosocial model, reintegrating the patient as a holistic being.

A variety of writings on consultations demonstrated a widespread acceptance in health care of the need for an holistic approach, and provided actual models – a structured framework – to reflect this epistemological assumption and to contain the various skills, communication techniques and interpersonal actions required to deal with the topic of that consultation. These were often characterised by a checklist of tasks or functions, to simply illustrate the model, but were backed up by strong rationale and research and development activities. Examples include the work of Pendleton *et al* (1984); Tuckett *et al* (1985) who conceptualised the consultation as a meeting between two equal experts, health professional and patient; Neighbour's focus on recognition of the part played by the health professional (1987); McWhinney's (1989) work on the development of patient-centred clinical interviewing, and Cohen-Cole and Bird's (2000) emphasis on understanding the perspective of the person and how that might shape their motivation and receptiveness to education; and Silverman *et al* (2005) work on the Calgary-Cambridge method. This was developed as a teaching template for doctors, but is increasingly adopted by nurses too (Miles, 2008).

Complexity theory: a new approach?

Complexity theory is the study of complex and adaptive systems and organisations, including the primary health care team (Plsek and Greenhalgh, 2001; Innes *et al*, 2006). It claims to offer an explanation for consultation dynamics unmet by other models, and acknowledges the uncertainties that exist within health care. The model challenges previous models, claiming that a consultation is not linear in nature. The rule-based models of the 1980s such as Pendleton *et al*

(1984) and Neighbour (1987) do work with the social rules that govern behaviour and interactions, but Innes *et al* (2006) argue that there are so many competing influences within a consultation that tidy rules no longer apply. They advocate a consultation “...characterised by the facilitation of free-flowing conversation...” (p.51), which can include the doctor’s personal life and experiences.

Complexity theory within the consultation appears to lie very close to the concepts of narrative-based primary care, and indeed they share the same proponent in Professor Trisha Greenhalgh (Plsek and Greenhalgh, 2001; Greenhalgh and Hurwitz, 1998). It arises from a social constructionist approach to medicine, whereby the *story* becomes the centre of the consultation, started by the patient and contributed to by the doctor, and possibly by others too. Launer (2002) claims it can offer both a theoretical framework and practical skills for managing the primary care consultation – and its wider contexts. The consultation does not sit alone within primary care but affects, and is affected by, other activities such as clinical supervision and teamwork. Launer (2005) claims the narrative model can therefore integrate the consultation comprehensively with a range of primary care work. Two key concepts are that firstly, the consultation is not linear, it is a system of circular processes; and secondly, the consultation is truly a “*shared act of creation*”, neither doctor-centred nor patient-centred (Launer, 2005:21). The narrative model uses grounded theory to understand meanings that are continuously created during a consultation.

Approaches within nursing

Terminology presented an initial difficulty in searching the literature because nursing (outside of general practice) rarely refers to its meetings with patients as ‘consultations’, but more abstractedly within ‘interventions’, ‘communications’,

'interactions', 'visits', 'sessions' or 'appointments'. Search terms such as 'interaction' resulted in many papers on communication exchanges or supportive/therapeutic activities, rather than the model (framework) of a consultation that was sought. Thus extracting specific models of consultation from the literature required many search terms, but even with diligent and varied search methods, there is comparatively little specific primary research available on the nursing consultation, as described in 2.4.1. And yet they are known to happen – practice nursing numbers have grown enormously within the last two decades, and much of the work previously undertaken by GPs, or new health promotional work, is now done by practice nurses working with consultation appointment systems within general practice (NHS Information Centre, 2007).

Nursing models

In light of the observation that the terms 'theory' and 'model' are used interchangeably in the literature, nursing provides an example. What are commonly called nursing 'models' are more akin to theoretical approaches to nursing, as distinct from consultation models. To take the issue back a little way and to look at what nursing *models* are employed, is a useful starting point. For a long time there were no explicit ones within the nursing literature; nurses relied not on models or theories but on instinct, intuition and empathy to perform their 'calling' as well as on ritual and habits (Aggleton and Chalmers, 2000). The nursing process was perhaps the first attempt to organise an episode of care (as opposed to the hospital ward) in a systematic way using the concepts of a linear, problem-solving approach (Yura and Walsh, 1967). It can be summed up as a four-stage process of:

1. Identifying (later to become assessing) the problem
2. Planning care
3. Implementing care;

4. Evaluating care.

This nursing process shares similarities with models relating to quality such as that of Deming (1986), and remains central to nursing care today. It has been expanded on by many writers since (Barrett *et al*, 2009), and integrated into subsequent and varied models of care as described in health visiting (Kendall, 1991), forensic nursing (Freedberg, 2008); critical care (Choi *et al*, 2004), hospital ward nursing (Jones, 2007), and spiritual care (Van Leeuwen and Cussveller, 2004). It is certainly evident within the pre-travel health consultation (Stringer *et al*, 2002; Willcox, 2004), but is not *per se*, a consultation model. However, it does provide a valuable framework or structure for care, whether episodic or continuous and long term, but on its own offers little towards understanding the processes, dynamics, meanings and differing types of outcomes of care.

The models of nursing that have since emerged use the nursing process to some extent, but also make an attempt to say what nursing is, or should be about. To a greater or lesser degree they make assumptions about the nature of people, health, illness and health care. Some examples are Henderson's model of fundamental human needs (1966); Roper, Logan and Tierney's model of activities of daily living (1983); Roy's adaptation model (Roy and Andrews, 1991) and Orem's self-care model (1995). There are a great many more, and Aggleton and Chalmers (2000) descriptive and analytical text *Nursing Models and Nursing Practice* provides a comprehensive overview.

However, it was found that terms such as 'model' and 'theory' were often used interchangeably in the literature, as if there was no difference. It could be argued that 'models' such as those cited above are more correctly viewed as theoretical

approaches; they are not so specific as models and do not offer a defined structure for managing a consultation, or specify the processes, dynamics and micro-objectives of care that might be expected of a consultation model. There appears to be a theory to suit most different types of care needs, for instance in mental health, rehabilitation, and acute nursing sectors, but there has been wide complaint that none of them suit the needs of patients and clients who consult with general practice nurses (Carey, 2000).

CAIIN models

The main work on researching the nurse consultation has been undertaken by staff at Leicester Medical School, culminating in the development of the CAIIN tool (Consultation Assessment and Improvement Instrument for Nurses). Hastings *et al* (2002) recognised that as primary care nursing roles expanded there was a need to assess and improve their consultation skills. The CAIIN tool was developed from work previously done with medical students and doctors, and features a medical symptom and sign-managing approach. However, it was used and tested in a range of nursing consultations including chronic disease management (diabetes), behavioural change (smoking cessation) and primary prevention and screening (cervical smear test) consultations. As a result the development team claimed transferability for the CAIIN tool, that it could be adapted for use in consultations for different purposes, and it allowed for the more holistic approach by nurses. Redsell *et al* (2004) further refined two versions for use in primary and acute settings, and from further research concluded the tool was both valid and reliable.

'Steps' models

Pearce (2003), a respiratory nurse consultant, developed a four-step model for the management of chronic asthma, which although specific to a relatively recent nursing role, is linear, falls into the detail of communication skills, and lacks reference to the literature and theory on consultation models.

de Lusignan *et al's* (2003) model is an eight-step series of questions for nurses to ask of themselves, together with an associated task. It is largely based upon Neighbour's (1987) work, with some reference to Pendleton *et al* (1984), Prochaska (1994) and Ogden *et al* (2002), and was developed for application in a coronary heart disease clinic. Although it invites comments on the fact that it is, again, linear and follows an 'ideal' consultation chronology, there does appear to be a more genuine attempt to synthesise different models with the introduction of Prochaska's work which is widely known in the field of health promotion, and does not focus on the patient who presents with an acute, new illness.

Health promotion approaches

The literature on preventive consultations uncovers several theoretical perspectives for consideration. Orbell (2003) writes on the theory of planned behaviour – but it relates to future *planned* behaviour, whereas travel-related ill health such as sexually acquired infections and accidents appears to be triggered by unplanned behaviour. Concordance and adherence models have mainly been developed by pharmacists to account for and improve patients' failure to adhere to prescribed treatment regimes (Butler and Rollnick, 2003). They offer insight into aspects of the pre-travel health consultation, such as non-compliance with malaria chemoprophylaxis, but fall short of a comprehensive consultation framework. However, sociological critiques have identified that these models still do not go far

enough in acknowledging the complexity and impact of lay theories about health, illness and medical or nursing interventions (Bissell *et al*, 2004).

A major nursing voice in the literature on health promotional models of care is that of Dean Whitehead, whose publications have established and clarified health education as one concept of many that make up the bigger framework of health promotion (Whitehead, 2001). He later refined health education and health promotion as closely related but not inter-dependent paradigms. He argues that many nurses still deliver preventive work within a biomedical framework, and that the profession needs to understand and implement health education before it can move on to the bigger and more complex demands of promoting health (Whitehead, 2004). This provides a timely pause for reflection on the travel health consultation, which is probably more about preventing illness and maintaining the individual's health, rather than aiming at improving or promoting health. Whitehead and Russell (2003) developed an evaluation model for nursing health promotion activity which could be adapted for use in measuring some of the outcomes of the travel health consultation. Outcome measurement is a neglected aspect of the field of travel health, and relates to Michie and Abraham's (2004) critique that so much of health promotion activity lacks evidence. Whitehead also examines the concepts of health *resistance*, where clients will actively resist acting on health messages, and health *reactance*, a subtly different negative reaction to forceful, expert-led instructions for health where the client feels the urge to do the opposite, and may even increase or take up the health-damaging activity as a result of the intervention (Whitehead, 2004).

Bauer (2005) agrees that the research void surrounding the pre-travel health consultation needs addressing. Her empirical experience and recent research

suggest that there are three areas of pre-travel health advice that raise problems and doubts about efficacy: the content of advice, the way it is given, and the effect it has. This has striking resonance with the works of Donabedian's Structures, Processes, Outcomes framework (1966, 1980, 1982, 1990). Bauer did not reference Donabedian but reviewed models of human health behaviour and models of communication as possible guides to the management of the consultation.

Transtheoretical model

Behavioural change models such as the social learning theory and the health belief model are prominent within public health and health psychology fields (Oldenburg *et al*, 1999); whereas the transtheoretical model and its central concept of stages of change has been highly influential in health promotion consultations by nurses. This model was developed by Prochaska and DiClemente (1998), and involves the health professional seeking to understand the stage at which a client with a problematic health habit is situated. With this understanding, the health professional is better able to adjust their consultation style and content to help the client move on through the stages, which range from pre-contemplation, contemplation, action, maintenance, and possibly relapse too. However, this model is designed for habitual behaviours harmful to health such as smoking, and requires regular, possibly long-term contact between client and practitioner. Therefore, despite it being a preventive model, it has little relevance to the pre-travel health consultation, its main contribution being linked to psychological adjustment.

2.4.3 Issues and debate

Methodological enquiry

So what are nurses doing in their consultations? It does not seem possible for a practitioner to work *without* employing some model of consultation, even though they may not be able to name it or even be aware of it. Implicit in the practice of each practitioner is some recognisable pattern, structure, process or demonstration of a recognised style of communication. This raises questions about how nurses learn to consult, who teaches them, and whom they model themselves upon. There are questions about what are they trying to achieve in a consultation, and what values are being made overt.

There is consensus in the literature that the nursing consultation would benefit through more primary research evidence to demonstrate how, where and when it takes place, which fields of nursing are engaging in consultations, and for what client or patient group or purpose (Bond *et al*, 1999; Hastings *et al*, 2003; Webber, 2003; Smith, 2004). This is a cause of mounting concern because, as Bond *et al* (1999:1065) put it, nurses are taking on the work previously done by doctors: *"...without there being any established professional standards that they must achieve before doing so"*. This infers issues of accountability, public safety and regulatory requirements.

There is also consensus in the literature on the necessity for new models of consultation to meet the needs of patients, clients and nurses interacting within health contexts other than that of the sick patient who presents with a problem (Carey, 2000; Anderson, 2001; Whitehead, 2001). Webber (2003) concurs with this as a nurse member of CASCADE, a group of East Anglian communications skills cascade facilitators (Cascade, 2005) – skills need a framework in which to

operate. An example of an innovative model is Swann and Brocklehurst's (2004:251) description of a "*unique*" health visiting model for family-centred public health practice, but it is designed to address service-wide needs, and not specifically the microcosm of a consultation. The paucity of research means that this need for models of consultation is largely unmet, but there are a few further studies or publications that identify the models currently employed, and attempt to develop new ones.

Bond *et al's* (1999) research on the assessment of nurse practitioners' performance in general practice consultations validates the need for greater understanding of what goes on within the consultation, and that as a method, video-recorded consultations assessed against a pre-determined scale, were useful. It was, however, a small study ($n = 4$) of nurses who had received prior training in consultation skills, and again, addressed only the type of consultation where sick patients were seen. Similarly, Richards *et al's* (2004) difficulty with assessment of telephone consultations by nurses resulted in the suggestion that recording them would assist analysis (although a search of the literature on consultation research techniques would have revealed this before the research took place). Morse *et al* (2000) established that qualitative methods could be used to evaluate nursing interventions and their outcomes, but again, only for ill patients. Parkin and Skinner (2003) explored the extent of agreement between patients and health care professionals (nurse specialists and dieticians) on their perceptions of the consultation. They found wide disagreement, and concluded that professionals needed to improve their communication skills. There was little recognition of the macro level of the consultation, its model, structure or epistemological underpinnings, which may have affected the perception of each party.

One model fits all?

Should practitioners look for one, elusive suits-all model of consultation, or is there a need for a range of models, a toolbox to use as best befits the patients' needs?

Neighbour (2002:965) reflected on aspects of the consultation, wondering if:

...we aren't in danger of elevating the consultation process to something rather more sophisticated than is good for it....despite all the flim-flam it still comes down to 'do as you would be done by'.

Neighbour's reflections did not give him cause to give up on the consultation (he went on, in 2005, to publish a second edition of his treatise on managing the consultation). The pre-travel health consultation occupies a unique place. It is not served by current models of health promotion with their emphasis on changing habitual behaviour, nor does the 'problem-solving' traditional consultation between practitioner and ill patient fit the diverse needs of travellers. There are other reasons to be suspicious of forcing the pre-travel health phenomenon into a pre-shaped medical model too, and these are, to paraphrase Marinker (cited in Pendleton and Hasler, 1985), hummed through the literature but never sung aloud. Launer (2002:184) identified four features that appear in, and indeed characterise most of the literature on consultations:

1. *"Patients arrive...with a fixed agenda (sometimes 'hidden'), which it is the doctor's task to discover."* It is the role of the practitioner to reveal these risks so that an agenda may be formed. Often, a traveller comes with an expectation and list of required vaccines, which may or may not turn out to be correct ones for their individual risk.
2. *"Their agendas can be determined by research interviews before or after the consultation."* However, their agenda may change within the consultation as an

individual risk assessment reveals topics for discussion. It can be a dynamic process involving both traveller and practitioner.

3. *“Each patient’s preferences are also fixed and the doctor needs to uncover them.”* Travellers may not have fixed preferences because they may not know what is in store in the consultation. The provision of new information sometimes leads them to need more time to consider their preferences, for instance, becoming aware of the potential adverse reactions of vaccines or malaria chemoprophylaxis.

4. *“The content of the consultation deserves more attention than the context...issues such as time constraints...are treated as incidentals rather than fundamental determinants of the consultation.”* This reveals one of the problematic tensions in travel health, where much of the literature addresses ideal content to include, but would be impossible in reality due to the very real time constraints and competing priorities faced by practitioners in primary care.

The literature reviewed included many models, which were no more than lists and expositions of good interpersonal skills. Skelton (2005) complains that such an intense focus on skills limits our consideration of the associated issues of attitudes that underpin their use and how those skills can best be deployed in different situations. However, there is little exploration of the attitudes of practitioners to pre-travel health issues, or of approaches such as the patient-centred consultation in travel health.

The concept of patient-centredness

A professional-centred consultation features the practitioner dominating proceedings, asking direct, closed questions, with a tendency not to enquire about the patient’s ideas and concerns, to ignore, or perhaps reject them. It is the health professional who does most of the talking. In contrast, the practitioner’s behaviour

in a patient-centred consultation is to listen actively, to ask open questions, to allow the patient to express themselves, and to check their understanding of what the patient has been saying (Moulton, 2007).

Patient-centredness is not a concept confined to the consultation however, but aspires to be the philosophy behind the health care system and the way in which organisations are managed (Pendleton *et al*, 2003). In describing components of a patient-centred consultation, Stewart *et al* (2003) include the need to build up a long-term relationship between the practitioner and patient. Whilst other components have direct applicability to the pre-travel health consultation with nurses, this aspect does not necessarily apply. Many practice nurses may see people for reasons other than travel health, and over a period of time, but it is also possible that the pre-travel consultation is a 'one-off' event. Nevertheless, patient-centredness criteria such as listening, or eliciting the traveller's concerns or beliefs, can be achieved in a pre-travel consultation. This has not been well addressed in the research literature, nor has the issue of whether the context of travel health services is geared towards the needs of individuals. Innes *et al* (2006) note that the term 'person centred care' is used in the literature relating to older people, especially in dementia studies. It seems a more global and appropriate term to use within health care where not every user is an ill patient – and travellers are just such an example. The work of Roter (2005), who developed RIAS, a system of analysing and measuring patient-centredness in consultations, is adopted and discussed more fully in Chapter 3.

However, some express unease about the assumption, in the name of patient-centred care, that health professionals can expect an automatic right of entry into the patient's subjective world. Whether or not one takes the sociological view of

Armstrong (1995), that patient-centred practice is just another way for health professions to maintain influence and control, there is certainly an issue of potential intrusiveness associated with the drive for recording information for targets or health promotion purposes.

Conclusion

It is acknowledged that this outline of the major approaches to consultations is designed for clarity in presenting the findings from the literature search. In practice, such approaches may not always be clearly delineated and can work in combination. Actual examples of a structure or framework (model) for particular types of consultation are very few indeed, and the literature appraisal has revealed the lack of specificity in the use of terms such as 'model' and 'theory'. Furthermore it is argued that consultations can be understood on three levels of theory, model and skills – an argument that is returned to later in the thesis. Perhaps the final feature to note of consultation theories and models in the early 21st century is that they are being adopted and adapted for delivery of health care in media other than the face-to-face consultation. Telemedicine, telephone consultations and online synchronous and asynchronous diagnostic interactions are developing mainly in response to meeting the demand for primary care services. The phenomenon of the consultation therefore remains an appropriate subject for further research.

2.4.4 Pre-travel consultations

In the UK, general practices in primary care are the major providers of pre-travel health activity, although specialist travel clinics are also available. The concept of general and specialist services is raised in the field of travel health in the UK (RCN, 2005), but with little research evidence to understand the differences between provision and traveller preference. The literature mostly fails to

distinguish which health professional directly provides pre-travel health advice, referring to the 'physician', who may delegate travel health work to nurses.

Hoveyda *et al* (2004) found that 97 per cent of practice nurses engaged in travel health in the UK, although this is not the case globally.

Hill (2001) claims there is little published research about how travel health clinics function, and this appears to be borne out by the available literature. There is, however, a consensus of opinion by authors and commentators to the effect that something more than advice on malaria or vaccines should be given during consultations (Dawood, 2002; Hoveyda and Behrens, 2003; MacKay, 2008).

This view acknowledges that travel-related health problems are not limited to medicine-preventable infections, but what else should feature in a consultation? It is a question posed by Hill (2001) who, like others, outlines what *should* be covered in a pre-travel health consultation (Driver, 2003a; Willcox, 2004, 2006; Chiodini, 2008). This includes the need to assess the risk of travel, patient demographics, travel plans, itinerary, duration and activities; the health status of the traveller, their medical history and conditions, medication, allergies, and vaccination history; and to provide advice on malaria, insect avoidance, prevention and treatment of diarrhoea, sexually transmitted diseases, water-borne diseases, blood and body fluid exposure, environmental and climatic factors such as exposure to heat, cold, altitude, jet lag and motion sickness, personal safety, animal bites and rabies avoidance; and preparation of travel medical kits, access to medical care overseas, travel insurance, and cultural adaptation.

Although such recommendations represent expert opinion on what should occur (rather than what practice actually consists of), issues about quality are raised by

Hill (2001). He advocates quality assurance measures such as the development of protocols and standards for practice, and consistency of advice, fees and resources for travellers. Simons (2003), in a study of UK nurses undertaking pre-travel risk assessments, found that only 58 per cent carried out a structured risk assessment, most of whom used a tool to assist themselves. The use of a checklist or template, and in-person consultations rather than telephone discussions are frequently advocated as ways to improve consultations (Hill *et al*, 2006; RCN, 2007; WHO, 2007). However, research evidence of the outcomes they achieve was not found.

Previously, Hill and Behrens (1996) identified 10 comments from health professionals on why delivering a travel health service was so problematic. Together these 10 comments comprised 82 per cent of all the reasons cited why pre-travel consultations are difficult, and they can be categorised as issues of structure (resources) and process. Hill and Behrens surveyed clinics throughout the world, thus potentially limiting the applicability to the UK, general practice and nursing, but found that the main problems for clinicians were:

- Insufficient space, time and staff to meet demand
- Last-minute travellers
- Telephone calls for advice
- The need for standardised, up-to-date advice for staff
- Conflicting and unreliable advice given to travellers by other sources
- Patient concern about the cost of the service and the vaccines
- Difficulty assessing patient compliance with and understanding of recommendations
- Difficulty in accessing new medications and vaccines
- Failure of insurance carriers to pay for service

- Travellers having preconceived ideas about their needs.

The pre-travel consultation clearly poses challenges to practitioners, and several studies have highlighted the deficit in education and training for health professionals engaging in travel consultations, including those of Gardner and Hill (1999), Zuckerman (2002), Simons (2003), and the British Travel Health Association (BTHA) (1999). This latter study was surprising as it was carried out using BTHA members, who might be expected to have an interest and knowledge above that of the average GP or practice nurse.

Pre-travel health care literature raises issues related to travellers too. Many travellers do not seek formalised, professional advice, although this varies between groups. The segment of travellers known as VFRs (visiting friends and relations) are very unlikely to do so, travellers for religious purposes are most likely – the vast Hajj pilgrimage and Saudi Arabian requirements of certificated vaccination may account for this in part. Possible implications for UK services are that awareness needs to be increased in travellers through multiple media, generating demand for appointments (HPA, 2008b).

It is more common to find reasons cited in the literature why people do not seek advice, and little is known about positive motivations for attendance, other than for vaccines. More distant destinations appear to be a trigger, but variables such as age and gender do not. There are two implications here: those who do not seek professional advice may face barriers such as a lack of awareness of preventive services, lack of time before travel, or difficulty accessing busy appointment systems. The second implication, for both traveller and practitioner, is the need to

take account of travel-related health beliefs, and perceptions of risk, and whether these match evidence of actual risks.

There is some evidence that travellers' *perceptions* of risks to their health when abroad differ from the evidence of what actually *does* cause them to fall ill or die, as shown in Table 1. The findings from 200 long-haul destination travellers are broadly congruent between age groups; the main messages are that more importance is placed on vaccination and little on road safety, yet the *actual* risks are in inverse proportion to these perceptions (Kassianos, 2001). There appears to be a sustained imbalance between perceptions of possibilities and probabilities, perpetuated by travellers and health professionals (Gushulak *et al*, 2007). The difference between what is *known* to put people at risk abroad and what people *think* will be a risk, constitutes a tension for health professionals involved in pre-travel health consultations. It is also evident in the literature: a strong repost from Hoveyda and Behrens (2003) was published following an article by Zuckerman (2002), which focused on travel vaccines.

Table 1: Percentage of respondents who consider an activity as a top priority (after Plus Four Market Research Ltd, 2003).

Travel health priorities	Considered as top priority (16–25 years)	Considered as top priority (over 50 years)
Receive vaccinations	35%	34%
Observe food hygiene measure	23%	27%
Only drink bottled water	14%	18%
Use sun protection measures	18%	12%
Avoid involvement with drugs	5%	2%
Avoid excess alcohol	2%	2%
Avoid extreme activities	1%	1%
Practise safe sex	1%	1%
Observe road safety measures	0%	2%

Yet the issue of health education within pre-travel consultations raises several uncertainties. Hayles (2005) questions whether assessing psychosocial risks is possible, or does any good. Bauer (2005) critiques educational attempts by health professionals. Teodósio *et al* (2006) found in a study of health professionals in Portugal that staff did not dispel myths surrounding travel health. Rombo (2005) suggests that advice is given by health professionals to protect themselves against litigation, and that it is often too much, impractical or unmemorable for the traveller to make use of. Despite statements that travellers should be empowered to educate themselves about health risks, or that information given to them should be based on a nursing assessment of risks and tailored accordingly (RCN, 2005, 2007), there is little evidence that knowledge to assist these aims was utilised from other fields such as health promotion and education. Knowles *et al*'s (2005) theory of adult learning is used elsewhere in nursing (Quinn, 2000; Redman, 2001; Mitchell and Courtney, 2005), but research on how to put across key health messages is not apparent in travel health.

This extends to the use of printed material, the effectiveness of which has been questioned generally by Paul *et al* (2003); by Kendall *et al* (2003) in terms of leaflets being perceived less favourably than one-to one information, and more specifically, in a study of leaflets used in Italian travel clinics by Carducci *et al* (2009). Indeed, literature on the pre-travel health consultation is marked by individualism, more so than by the collective approaches evident in public health; by an absence of discussion about the different approaches of health promotion and health education; and lacks critical analysis about the meaning and means of empowerment, 'tailoring' or patient-centredness that are raised elsewhere in health care (Kendall, 1993; Besner, 2000; Anderson and Funnel, 2005).

The lack of analysis about efficacy also applies to how travellers utilise the information. It is an infrequently addressed issue, other than there being established agreement that compliance with malarial chemoprophylaxis is poor (Banerjee and Stanley, 2001; Peetermans and Wijngaerden, 2001). It seems unlikely that all travellers come to the pre-travel health consultation as a 'blank slate': they may be experienced, have access to multiple sources of advice, and make use of what Bradby (2009:148) calls a "*therapeutic network*" of friends and relatives before travel.

Little is known about the importance or effectiveness of the Internet or printed materials, and there is an assumption in the literature that a non-attender is non-informed, and therefore an at-risk traveller. Bauer's (2005) discussion on the need to focus on the educational part of the pre-travel health consultation is illuminating, and Crockett and Keystone (2005) also contribute usefully. Information, advice, education, health promotion and counselling are all terms used more or less interchangeably, but they are quite different techniques. Several studies call for more education, either of travellers or practitioners, but none consider the existing knowledge of the traveller, or seek to start a travel health intervention at that point of cognisance.

Outcomes of the pre-travel health consultation – a consideration of whether it is successful in reducing morbidity and mortality – are not clearly identifiable. Behrens and Roberts (1994), Green (2003), Holmes (2003), Hoveyda and Behrens (2003) and Bauer (2005) all question just what it is that makes up a quality service. One implication for this study is to ask if the UK travel health professional can both learn and teach in ways that improve outcomes for travellers and practice.

There is no travel-specific model of consultation, and attempts to fit pre-travel health care into existing models are few and unsuccessful. Pender (2005) advocated a behavioural counselling model to guide pre-travel consultations, but the underlying assumptions that behaviour abroad is planned or predicted, and that several consultations occur in order for longitudinal care to develop, appear not to be the case for most consultations.

This literature review is congruent with anecdotal evidence that last-minute travel is an increasing feature of modern life. The implications in the UK are that travellers may be sub-optimally advised and vaccinated, this risk being compounded by difficulty accessing rapid appointments in general practice. The risks of under-treating travellers receives the most emphasis in the literature, but problems of over-treating are noted too, particularly in the work of Behrens, the only full-time travel medicine NHS consultant in the UK (Hoveyda and Behrens, 2003; Carroll, Daniel and Behrens, 2008; Behrens, 2009). Just what travellers in the consultation receive, or how it is delivered, are very under-researched issues, other than numerous studies measuring and reporting vaccine uptake in different ways. This indicates a need for further research to examine the structure, processes and outcomes of the pre-travel health consultation, and from the perspective of the traveller.

In conclusion, it is the pre-travel health service itself that is comparatively lacking an evidence base, and there is also a lack of research into the role of the health professional in travel health. The literature shows broad consensus on the need for better quality pre-travel health care, including the education of practitioners and travellers. There is little evidence about lifestyle and behavioural measures to protect health, and how they can be promoted. The literature shows that nursing

journal articles on travel health are largely anecdotal or sourced and compiled from tertiary sources: there is very little original research. The DH National Research Register (2005, 2009) did not show any similar research, and the Steinberg collection held by the RCN, the most comprehensive collection of nursing theses at master's and doctoral level, does not hold any work on travel-related health issues (RCN, 2009a). There is, however, a growing body of research and commentary on the quality of a general practice consultation, although nothing specific has been found on nurse-led travel consultations. There are methodological gaps indicating a lack of in-depth qualitative investigations and any diversity in research methods other than questionnaire-based surveys. Therefore this study of the pre-travel health consultation offers the potential contributions of synthesising the body of knowledge on consultations and the role of nurses in the field of travel health.

2.5 Conclusions

This literature review was driven by the notions and experiences set out in Chapter 1; that pre-travel health consultations by nurses are a significant feature of UK general practice. Their growth appears to lack strategic planning, and there is a sense of uncertainty about what such consultations should address, how they are delivered, and what they achieve. As a result, the literature reviewed is drawn from three key related domains: the topic (travel-associated health issues), the philosophical driver (achieving quality health care), and its means of delivery (the consultation).

Travel-related health issues (perhaps more accurately described as a focus on ill health) are now being identified and quantified in published research, although

significant gaps in surveillance and data gathering still exist. Nevertheless, there appears to be enough evidence to specify a wide variety of health problems on a spectrum ranging from mild, self-managed complaints to those which result in hospitalisation or death. The volume of global travel now makes these a significant group of health problems, which impact upon individuals, public health, and health services. The literature reveals claims that a preventive approach through pre-travel health consultations is supported by experts within the field of travel health, although evidence of successful (or indeed any) outcomes, is limited. The emphasis relates very much to what vaccines and topics to address in the consultation (a growing list), rather than to how travel health services are delivered. This part of the literature review justified travel health as a subject worthy of further investigation, and identified gaps in existing research. This offers the potential to make original contributions to practice, and to add a contrasting methodology to the plethora of questionnaires. A key research question arising from the literature is: What currently comprises the nurse-led pre-travel health consultation?

The concept of quality was the next area of literature to be reviewed because it was the philosophical driver for the activities aimed at achieving optimal travel health care described in Chapter 1. Definitions proved elusive and subjective, but underpinning concepts of equity, effectiveness, efficiency and other key values emerged from the literature. Although there are no major health policies relating directly to travel health, the advent of clinical governance provided principles applicable to all health service provision – giving further justification for researching the ways in which the pre-travel health consultation could be evaluated and improved. Additionally, the review of literature on quality identified the work of Donabedian, and demonstrated that the *Structures, Processes,*

Outcomes framework was an enduring, unifying influence in other models depicting quality, and provided the foundations for clinical governance. Furthermore, it had proved its durability and wide reaching applicability for different health care topics, initiatives and settings. This framework was therefore identified as a tool for shaping and organising much of the intended research, and to help answer research questions formulated from this part of the literature review such as: What structures, processes and outcomes are currently associated with the pre-travel health consultation?

The literature review on consultations was then undertaken. It established what was known: that much research on the consultation is primarily focused on the doctor in general practice and the sick patient, but research on consultations led by nurses is scant in comparison. The limited evidence mirrors that which has been done on the doctor-sick patient scenario, such as the nurse practitioner taking on the GP role of assessing sick patients. However, widening the literature search was necessary to include the many variable or alternative terms that are in use in order to find material on 'consultations'. In terms of relevance to travel health, the literature on approaches to health promotion appeared most relevant. However, research into models of promoting health is mainly focused on longitudinal, multi-contact behavioural change for habitual practices that present a threat to health (smoking, obesity, lack of exercise), which does not meet the need for a model to manage the often one-off nature and time-limited risks that are features of travel consultations. There was some limited evidence to suggest that current models of pre-travel health consultation by general practice nurses were deficient in respect of their structure, process, or outcomes (or all three). The search for specific consultation models (meaning structures or frameworks) revealed the interchangeable use of terms such as 'model' and 'theory', leading to

the need to conceptualise the consultation in three layers: an underpinning theory or philosophical approach to care, the model used to deliver it, and the communication skills used within it. It was this last layer of communication skills and interpersonal techniques that search terms such as ‘interaction’, ‘intervention’ or ‘style’ revealed, and there were very few examples of actual models as defined for the purposes of this study.

The pre-travel health consultation in general practice is delegated to nurses as a service response to increasing patient demand. It has developed *ad hoc* and there has been little research into the aims, methods or outcomes of this unique type of consultation. The literature exposed questions about the make-up and delivery of the pre-travel health consultation, and about what constitutes ‘quality’. The literature mainly argues what *should* take place in a pre-travel health consultation, but there is little evidence of what actually *does* occur. Throughout the travel health literature there is a lack of stakeholders’ perspectives in travel health research (i.e. the opinions of travellers and of nurses who deliver services), other than amalgamated responses to quantitative survey questions.

Consequently, two principal questions emerged about identifying how consultations are conducted, and how they might be improved:

1. What currently comprises the nurse-led pre-travel health consultation?

Subsidiary questions include:

- a. What structures, processes and outcomes are currently associated with the pre-travel health consultation?
- b. How appropriate are the interventions, when mapped against the ‘expert’ opinion and guidance available in the literature?
- c. Do nurses consciously adopt a model of consultation?

d. How do travellers use the education, information, advice and interventions gained from the consultation?

2. What elements ought to be incorporated into a consultation model for pre-travel health?

Subsidiary questions include:

a. Is a new model needed, and what would be its purpose?

b. How could a core model be made flexible enough to adapt to the needs of different travellers?

c. How can the views of different stakeholders (nurse, traveller and expert) be synthesised with evidence of best practice from models of consultation?

The literature has revealed that there is as yet no model that adequately meets the needs of nurses and travellers for a comprehensive consultation framework. For instance, the medical model and its focus on eliciting the problems and diagnosis for a sick person, is not applicable. A potential solution lies in synthesising existing best practice from different disciplines to meet the needs of the new field of travel health. For instance, health education and a biopsychosocial approach may offer a better solution in combination than separately. The next chapter describes how these questions shaped the design and methodology of the research study.

Chapter 3: Methodology

3.1 Introduction

The need for research into the pre-travel health consultation was established in Chapter 1, and the literature review of Chapter 2 crystallised questions about this phenomenon that remain unanswered. Chapter 3 provides information about how those questions will be answered, and gives a broad overview of the study's bricolage design and rationale, developed in response to the nature of the research questions. Each of the six methods is described, together with an explanation of how the research was conducted. This chapter also addresses ethical considerations, methodological rigour and the links between the different methods. The research took place within general practices in a Strategic Health Authority domain in England between 2006 and 2008.

3.2 The overall study design

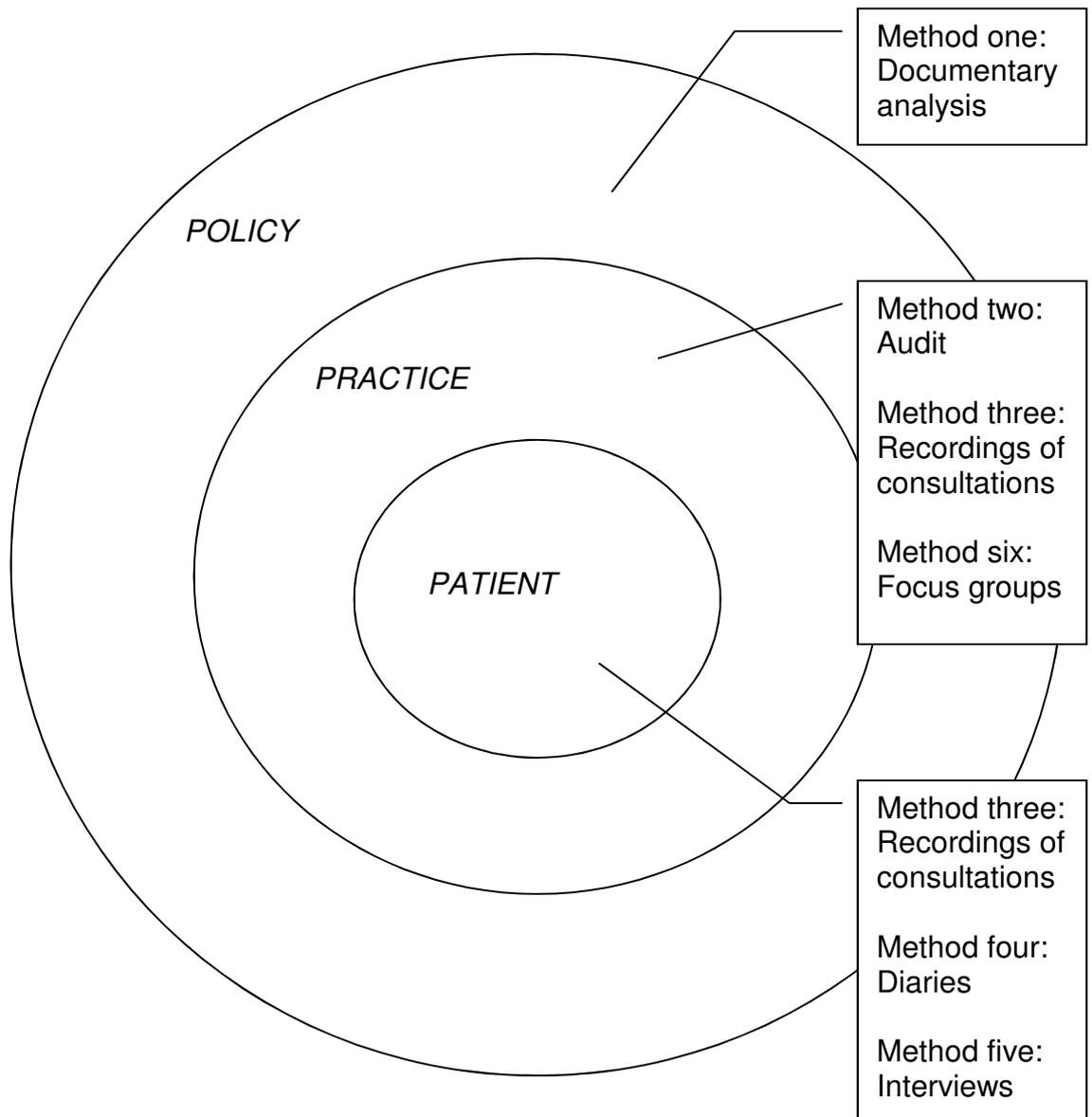
This study takes an ontological perspective that social phenomena (such as the consultation) are real and are entities worthy of study; they do not have to be tangible, physical 'things' in order to be researched. Imposing a hierarchical structure in which they have a place is problematic – the social world is not so easily squeezed into clear, mutually exclusive categories.

Nevertheless, frameworks can offer a useful device by which to organise and study phenomena, which might otherwise be too unwieldy and anarchic to interpret. Donabedian's *Structures, Processes, Outcomes* framework (1966, 1982, 1990, 2003) was selected from a range of existing models of quality because it offered the advantages described in the previous chapter. It has been developed and used in practice over a number of years, and has gained wide acceptability as

a framework for evaluating and designing health interventions. However, it does not appear to have been used to examine travel health provision or the nursing consultation critically. In travel health, inputs (structures) are readily identifiable, whereas outcomes (in terms of health gains or losses) require far more information than a single-handed PhD study can achieve. The emphasis was therefore on the processes that occur within the consultation, which are dependent upon human interaction, decision-making and interpretation. Hence the emerging epistemology was mainly a qualitative one.

The study design or methodology uses bricolage to achieve the aims of the research and to answer the research questions. Bricolage is a term derived from 'bricoleur', approximately translating from the French language as a 'jack of all trades'. Derived from the work of Levi-Strauss (1966), in qualitative research the term describes a pragmatic combination of methods chosen to examine a specific issue from a number of different perspectives, as propounded by Denzin and Lincoln (1998). An illustration of this is provided in Figure 8. A range of methods was reviewed in order to select those most suited to achieve the aims of the research. For example, observational methods were rejected because the presence of the researcher in consultations could potentially bias the study by altering the dynamics of the nurse-traveller interactions, and would not be able to capture data as completely as an AV recording. Similarly, survey-based questionnaires to travellers were rejected because they were deemed unlikely to achieve the depth of discussion that could be expected from interviews.

Figure 8: Bricolage – methods selected to investigate the relationship between policy, practice and patients.



Bricolage is a methodological technique widely employed in commercial marketing research where it offers ‘informed eclecticism’, meaning the drawing together of theories and methods from different disciplines (Barker *et al*, 2000). Hammersley (2004) expounds the value of bricolage in educational research, but in health care, it is less frequently found. Freeman (2007) describes how public health officials formulate policy out of a process of epistemological bricolage, and there are valuable arguments in support of its use in this study because of the nature of nursing practice. Slevin (2003:271) recognises that experienced,

competent practitioners draw on more than one perspective to understand something or someone; that nursing draws on different types of knowledge and that: *“There are no ready-made models or theories to suit all circumstances...”*.

Gobbi (2005) further explores these concepts, supporting the argument that nursing epistemology embodies *bricoleur* activity, drawing as it does on knowledge from different domains such as sociology, education, anthropology, psychology – and presumably from the clinical sciences such as anatomy and physiology too. Kincheloe’s critique (2001) supports bricolage as a technique for achieving methodological breadth. It is used in this study to achieve triangulation across the insights derived from using a range of different methods of data collection, which is particularly useful because of the small scale of this research. Denzin (2006) describes different types of triangulation, and in this study it is the use of two or more methods to cross-verify data that is sought in order to strengthen the credibility and validity of research findings. Combining methods can attenuate the weaknesses or biases inherent within a single method (Adami and Kiger, 2005). Kincheloe (2001:679) also maintains that bricolage is used to understand findings because recognition of different theoretical perspectives *“...avoids...the parochialism of unidisciplinary approaches.”* This shift from earlier thinking about bricolage as a multi-method form of inquiry (Levi-Strauss, 1966; Denzin and Lincoln, 1998) to *“...bricolage-as-praxis and/or bricolage as a theoretical concern”* is corroborated and supported by Lincoln (2001:693) in a direct response to Kincheloe. It is these concepts that shape both the methodology driving data collection, and the interpretation of the data analyses within this study.

3.3 Methodology

Both the research questions and the way in which travel health requires contributions from a broad range of disciplines in order to provide an holistic service, led to the sequencing of six different methods. Using the metaphor of a journey, so apt for the topic, the methods can be said to travel from a starting point of a literature review (Chapter 2), to what the 'experts' say should comprise a pre-travel health consultation (method one, Chapter 4), through to what practice nurses actually do (methods two, three and six, Chapter 5), continuing abroad with the travellers (method four) and back home again (method five) in Chapter 6, ending at a destination of a proposed new model of pre-travel health consultation presented in Chapter 7. With the potential for generating much data, collection and analysis was constrained to meet the aims and objectives of the research as discussed in Chapter 1. Although plentiful data allowed for a wide choice of analytical techniques, a focus was kept on the primary objectives of describing this hitherto unknown phenomenon of the pre-travel consultation, and the consideration of its model of delivery. The data collection and analysis methods are described in sections 3.3.1 to 3.3.6.

3.3.1 Method one: Documentary analysis of expert opinion

Documentary analysis is the first of six methods used in this study for researching the pre-travel health consultation. Each method builds sequentially upon the others to answer the research questions, and documentary analysis is therefore a foundation for the subsequent methods. This method draws on the official guidance for pre-travel health care produced by three national and one international health departments for health professionals. It therefore represents 'expert' opinion on the content, and sometimes the conduct, of the pre-travel health consultation.

Justification for this method comes from Blaxter *et al* (2001:171), whose reasons for the use of existing data, include: “*Because they may confirm, modify or contradict your findings*”. May (1993), cited in Blaxter *et al* (2001:207) claims that documents “*...do not simply reflect, but also construct social reality...*”, and one purpose of analysing these documents was to determine the extent to which expert opinion influences the pre-travel health consultation led by nurses. A benefit of documentary research in this instance is the ease of availability of official guidance on pre-travel health services, which are in the public domain and freely accessible through the Internet. Other advantages include cost effectiveness for the researcher, and the permanence of the data, which can strengthen the validity of research findings because the documents are available for scrutiny by others. Bowling (2002:417) refers to the “*relative non-reactivity*” of documents with the researcher as an additional advantage, suggesting that researcher-induced bias is minimised because the data already exists.

Despite such clear support and justification for documentary research, potential pitfalls and problems can occur. Cohen and Manion (1994) cite issues of availability, authenticity, sampling, inference and interpretation when using documents as data, and these were duly noted. Inference and interpretation are the two factors that are likely to be issues with the data, but that could be argued to be the case for *any* method of data analysis. Sapsford and Abbott (1992:85) question the validity of findings based on the “*...use of what is available, even if it does not quite match up to what we need*”.

This summarises a real issue for this research proposal: there *is* very little official or research-based guidance on the management of pre-travel health care, although there are numerous lists of topics to address, suggested by various

authors without particular justification. By analysing the official guidance, it is possible to identify the priorities that have filtered their way up to government health department level, to examine the congruence and differences between countries, and the presence of any value-laden messages. These documents represent what Sim and Wright (2000:61) call a “*professional orthodoxy*” framed in “*objective terms*”, which lack scrutiny and are largely unquestioned in the travel health literature.

Only a few official guidelines for pre-travel health care exist. In this sense, ‘official’ means that they are published by the government health department for a particular country or by the WHO for many countries. They are intended to guide pre-travel health service provision, are written by a group of experts rather than an individual, and as such have been through processes of scrutiny and consensus-gathering likely to exceed that of a peer-reviewed article.

The term ‘expert’ deserves definition here. There is no standard qualification that bestows the status of ‘expert’ upon an individual within travel health. For the purpose of this methodology, ‘experts’ were therefore taken to be the contributors to the documents analysed in this method, and they are detailed in the findings of Chapter 4, *Phase One: What do the experts say?*

Sampling and selection

The criteria for selecting the documentary sources were that they:

- were official publications by an official or government health department for a region,
 - country or group of countries
- were specifically relevant to pre-travel health care

- had a target audience of health care professionals
- made reference to structures, processes or outcomes associated with pre-travel health care
- were published in the English language
- were obtainable by the researcher
- were currently in use and the most recent edition at the time of analysis.

Using these criteria, guidance documents from four different government agencies were identified.

UK:

Department of Health (2001a) *Health Information for Overseas Travel*. London: The Stationery Office.

USA:

Centres for Disease Control and Prevention (2005) *Health Information for International Travel 2005–2006*. Atlanta: US Department of Health and Human Services, Public Health Service.

Canada:

Committee to Advise on Tropical Medicine and Travel (CATMAT) (1999) Guidelines for the Practice of Travel Medicine. An Advisory Committee Statement (ACS). *Canada Communicable Disease Report*, Vol. 25 (ACS-6) 01/12/99, pp 1–6, and an associated update: Committee to Advise on Tropical Medicine and Travel (CATMAT) (2003) Statement on Ethics and Travel. An Advisory Committee Statement (ACS). *Canada Communicable Disease Report*, Vol. 29 (ACS-9) 01/10/03, pp 1–8.

WHO:

World Health Organisation (2005) *International Travel and Health*. Geneva: WHO.

Data collection and analysis

The data were collected and analysed between July and September 2006 employing content analysis, as derived from Glaser and Strauss (1967). The process of analysis was to:

1. read each document, noting initial thoughts on any emerging categories, as well as labelling content that fitted into Donabedian's *Structures, Processes, Outcomes* framework.
2. Re-read the documents to review and refine the categories.
3. Analyse each document against those categories to test and finalise them.
4. Compare and contrast findings of the different documents, looking for commonalities and differences, gaps and overlaps.
5. Extract and identify over-arching themes, and to synthesise the findings.
6. Interpret the findings, relating them to the research questions.

Analysis was informed by Denscombe's (2003:222) specifications on what content analysis of documents can achieve, as identified in Table 2.

Table 2: Document content analysis (Denscombe, 2003:222).

Content analysis reveals...	...by measuring
What the text establishes as relevant	What is contained (e.g. particular relevant words, ideas)
The priorities portrayed through the text	How frequently it occurs; in what the text order it occurs (<i>sic</i>)
The values conveyed in the text	Positive and negative views on things
How ideas are related	Proximity of ideas within the text, logical association

The findings are presented in Chapter 4, *Phase One: What do the experts say?*

3.3.2 Method two: Audit of structures available in practice

A baseline analysis of current practice was required to ascertain what Donabedian (1980) refers to as the *structures* within a service. Structures are the tangible necessities and resources needed to conduct the service, for instance, a pharmacy refrigerator to store vaccines. The term 'audit' requires some justification at this point: it is not used in what has come to be the accepted meaning of medical audit, which is a process, a complete cycle to include standard setting, data collection, performance assessment and the implementation of changes (Irvine and Irvine, 1991). The term 'audit' is used here in a more generic sense to mean an inventory of resources that were used by practice nurse participants to assist themselves in providing pre-travel health care.

This method was selected for three main reasons. Firstly, to assist in answering the first research question: *What currently comprises the nurse-led pre-travel health consultation?* and a subsidiary question: *What structures, processes and outcomes are currently associated with the pre-travel health consultation?*

Secondly, the method was chosen as an aid to understanding the circumstances in which each practice nurse was working. Thirdly, to assist in the formulation of a new model for the pre-travel health consultation by contributing to answers to the research question: *What elements ought to be incorporated into a consultation model for pre-travel health?* An alternative method of collecting this data would be to observe it from the AV recordings (method three), but this was considered less complete and not so easy to compare across sites. The audit tool is presented in Appendix 1.

Sampling and recruitment

The audit used a non-probability, purposive sampling of general practice nurses, recruited from general practices. Six participants were considered to be a suitable number because, as with the other methods, the sample size was guided by the aim of achieving depth, rather than breadth of knowledge about the consultation (Sandelowski, 1995). The same sample was also recruited for method three, the AV recording of consultations with travellers. 'Non-probability' sampling means the aim is not to represent the whole population evenly and equally, because this was not possible in a single-handed project of this size and design. 'Purposive' sampling means that participants were selected according to specific criteria – in this method, the nurses must engage in travel health care. Participants were accessed through general practice addresses in the public domain, within the geographical region for which the NHS Research Ethics Committee (REC) and the PCT Research and Development Lead had given permission for the study to take place. Letters and participant information sheets were sent to general practice senior partners to seek their permission to approach their nurse employees and undertake the research on their premises. If the senior partner was in agreement, similar recruitment letters were sent to the practice nurses (see Appendix 2 for examples).

Tools and piloting

An audit tool was designed because no suitable instrument was found through the literature search. The development of the audit was firstly informed by the literature on research instruments (e.g. Parahoo, 1997; Blaxter *et al*, 2001; Denscombe, 2003). It was important for the tool to be reliable (able to produce the same results with repeated use), and valid (able to measure what it is supposed to measure), to achieve the methodological rigour outlined in section 3.5.

Closed, factual questions were used to facilitate clear resource comparisons between participants and practices. The content of the questions was derived from several sources, including the researcher's own experience, literature on travel health, and method one (documentary analysis) data. The Canadian document (CATMAT, 1999) in particular identified a list of resources necessary for travel health care, e.g. leaflets, record books, vaccine products, and sources of information. These were synthesised to produce the audit list, designed for rapid, convenient data collection from the practice nurse participants using a tick box facility for nominal and ordinal responses. The questions were organised in a logical order, grouping items such as treatment room facilities, sources of reference used by the participants, vaccines and equipment, and leaflets provided to travellers.

The form was piloted with two practice nurses, one with long experience; the other had entered general practice within the last two years. Both were able to recognise what was required and to complete it quickly. No changes were made other than to embolden and space some text for visual ease. This instrument appeared therefore to have some face validity because it was acceptable and functional for the pilot nurses, and some content validity because it reflected resources identified and synthesised from the expert opinions found in method one documents and the wider literature on travel health (e.g. RCN, 2005).

Data collection and analysis

Data were collected by giving participants the audit form and a reply-paid envelope after obtaining their informed consent to participate in the research, and took place between April and September 2007. Analysis involved the use of frequencies and other descriptive statistics, e.g. the mean, where appropriate, and

presenting the data in tabulated form which facilitated interpretative comments and discussion. The aim was to characterise and compare the resources available to nurses in each of the practice settings. The findings are presented in Chapter 5, *Phase Two: What do practice nurses say and do?*

3.3.3 Method three: Audio-visual recordings of consultations

Recording consultations is an established research and training method for doctors in general practice (Coleman, 2000), but is less commonly used for nurses (Bond *et al*, 1999). It is also widely used for audit, assessment and medico-legal reasons, and audio-visual (AV) recording was selected for method three. Guidance on AV recordings in general practice has long been available (Southgate, 1993), and benefits include the observation of non-verbal communications, environment and actions. The aims were to collect data to answer much of the first research question about what currently comprises the nurse-led pre-travel consultation; to describe the current provision and to analyse the organisation, flow and phases of the consultation; to establish whether a consistent or specific consultation model is adopted, and to examine the communication processes between the nurse and traveller.

Other choices of method were considered for capturing the consultation. Sitting in as an observer and making field notes was quickly discounted because of the difficulties of capturing all the available (verbal and non-verbal) information within the consultation; because a third party changes the dynamics of a consultation; and because there would be an obligation for the researcher to intervene (as a registered nurse with travel health knowledge) if the care or advice offered was not in the best interests of the traveller (Nursing and Midwifery Council (NMC), 2004). Post-consultation interviews with participants were discounted because of their reliance on memory, which can be highly selective, their lack of ability to capture all communication and interactions used in the consultation, and the time required of participants to complete them. Simple audio-recordings were also rejected because they would only offer the possibility of linguistic analysis, whereas the overall research design employs Donabedian's (2003) holistic

framework of *Structures, Processes, Outcomes*. A tape recording would be insufficient to capture data on all of these aspects, e.g. facial expressions or eye contact. AV recording was therefore selected as offering the best balance between advantages and drawbacks.

Advantages of AV recordings include:

- a complete record of the consultation
- all modalities of the nurse-traveller interaction can be assessed simultaneously (Coleman, 2000)
- the ability to view and hear the consultation repeatedly aids the researcher's familiarity with the data
- AV can be re-played for inter-observer reliability testing
- participants can view the recording for reliability testing, should this be required.

Drawbacks of AV recordings include:

- intrusiveness
- the equipment is expensive
- additional consent procedures are required
- internal validity may be compromised if participants alter their behaviour as a result of being filmed
- external validity may be compromised if participants who consent to AV recording are somehow different from those who withhold consent, thus only allowing researchers access to a restricted sample group.

Research by Coleman (2000) and others indicates that these last two drawbacks are not consistently or widely problematic. Furthermore, Coleman's

recommendations for researchers could help to uncover instances where these drawbacks do occur, which can then be critiqued and made transparent. His recommendations were adapted for this research study, and include:

- reporting the methods of recruiting the nurse participants to this method, comparing those who consent with those who do not
- clear documentation of the methods of obtaining traveller consent, comparing those who consent with those who do not
- consider monitoring behaviour seen in the AV recording for signs of bias or altered behaviour as a result of the camera's presence (see Chapter 5: *Phase Two: What do practice nurses say and do?*).

Sampling and recruitment

Two sample groups were required for the consultation recordings – practice nurses and patients seeking pre-travel health consultations. All participants were accessed through general practice addresses in the public domain and with the permission of the senior partner.

The practice nurse sample (n = 6) has been described in method two above. For the travellers, it was intended to recruit a minimum of 30 and a maximum of 36. This figure was judged to provide a balance between depth and breadth of data, to be achievable given the size and design of the study, and to allow for some attrition as they were also recruited for follow-up in method four (travellers' diaries) and method five (post-travel interviews). A total of 32 were recruited in a non-probability, convenience group of travellers. Although the non-probability factor meant that the sample would not be representative of all types of traveller segmentation, a satisfactory spread was achieved, and is detailed in Chapter 6: *Phase Three: What do travellers say and do?* Convenience sampling meant that

participants were selected on the basis of the first ones who were available and consented to participate.

Where possible, participant information sheets were left with the practice nurse participants to forward on to travellers booked in for pre-travel health consultations. This was in keeping with local NHS REC guidance to allow two weeks for potential participants to decide if they wished to take part in studies. However, as the literature review widely documented the increasing trend towards 'last minute' bookings, ethical permission was sought and gained to recruit travellers when they attended the practice, immediately prior to their appointment.

Tools and piloting

The pilot study could not be conducted with actual travellers because, as NHS patients, ethical approval was still awaited, and was therefore conducted using role-play with a nurse colleague playing the part of travellers. The main aims of the pilot were to become familiar with the AV recording equipment, identifying and rectifying problems before they arose in the field, and testing the process of analysis (Table 3). The pilot study resulted in two adjustments: a wide-angle lens and a variable height tripod being purchased to ensure the best capture of data in a variety of different consulting rooms. Secondly, the pilot study led to slight adaptations of Silverman's (2001) transcription coding technique to improve and standardise the transcripts ready for analysis (Appendix 3).

Data collection and analysis

Data collection took place between April and December 2007 using the following process:

1. informed consent of all participants and gatekeepers was obtained prior to the recordings being made.
2. The camera was set up in the treatment room, prior to the nurse coming on duty and was made as unobtrusive as possible. The nurse was shown how to stop the recording immediately, should a traveller request it.
3. The researcher started the recording as the consenting traveller was called in to their consultation.
4. The researcher waited outside the treatment room until the consultation was over, then switched off the camera and took the traveller to one side to complete the post-recording consent form and to confirm the diary (method four) and interview (method five) arrangements;
5. The researcher awaited the next recording opportunity, or removed the camera.

Two types of analysis were selected, offering complementary ways in which to examine the AV data. The major analysis involved a qualitative approach based on grounded theory (Glaser and Strauss, 1967), whereas a quantitative tool – the Roter Interaction Analysis System (RIAS: Roter and Larson, 2002) made a useful but much smaller contribution. Little is known about what the pre-travel consultation comprises and how it works, and so these analytical techniques were selected to meet the research aim of describing current practice.

RIAS provided a 'skeleton' of measurable, numerical interpretations of the data, using pre-defined categories of talk to identify and describe the content and components of the consultation process. It helped to construct a picture of the consultation 'shape' – its flow and dynamics, particularly the share of talk between nurse and traveller, and the occurrence of pre-identified phases of the consultation

(see Appendix 5). The more open, qualitative content analysis allowed the 'fleshing out' of numbers with examples and potential explanations for trends and anomalies, which could then be considered in the light of the literature review. It identified the content of consultations, e.g. what nurses say and do, and behavioural elements emerged such as a theme relating to the dominant role of women within consultations for the travelling public.

The benefit of using these two forms of analysis was that both illuminated the use – or lack of – a model of consultation. This elusive model was sought in the literature review (rather than just the communication skills in use), and no single, applicable one was found for pre-travel consultations. Therefore these analyses fulfilled the purpose of describing what happened in practice, and enabled the inference of models in actual use. Combining these two types of analysis provided the additional advantage of a form of triangulation whereby the findings from each analysis could be compared with the other. This mutual cross-checking can strengthen the validity of findings.

Other analytical techniques were considered, including the spectrum of discourse and conversational analysis. The edges of these are often blurred (Traynor, 2006), but Willig (1999:160) defines discourse analysis as:

"The process by which strategies of meaning construction are made visible. Discourse analysis is concerned with the ways in which language constructs objects, subjects and experiences."

The ability of language to construct social actions and relationships is well detailed in the literature (Gunnarsson et al, 1997; Wood and Kroger, 2000; Rapport, 2004; Trappes-Lomax, 2006; Bloor and Bloor, 2007). In health care the applications

have been wide and varied, encompassing Foucauldian perspectives on ideology and power relationships (Cowen, 1994); biographic narratives used in hermeneutic approaches (Chadderton, 2004); and ethnomethodological analysis of conversations, e.g. the adjacency and frequency of turn-taking between speakers such as doctors and patients (Bloor and Bloor, 2007). The work of Heritage established conversation analysis as a key technique in researching institutional talk, and together with discourse analysis, presents techniques that have been used in health visiting (Heritage and Sefi, 1992; Kendall, 1993); psychiatric nursing (Middleton and Uys, 2009); and many other disciplines (Traynor, 2006).

However, using specific or singular techniques of discourse analysis was not selected in this study for two reasons. Firstly, there is some debate about them being most useful when pre-conceived perspectives need to be understood within the data. Gunnarsson et al (1997) give examples such as historical factors, power relationships, parameters of behaviour, linguistic evolution and moral stances. Due to the lack of previous research on travel health consultations, as established during the literature search and review process, the use of pre-conceived factors was not appropriate or applicable. It was first necessary to achieve a fundamental description of actual practice. Maynard and Heritage (2005) advocate conversation analysis as a means to improve medical communication, but again, an assumption would have to be made prior to data collection that communication was in need of improvement. Furthermore, the focus needed to be maintained on reaching an understanding of models of consultation, rather than specific communication skills used.

Secondly, the main choice of analysis techniques (as with methods) was guided by the need to answer the research questions. These sought an understanding of

the journey of knowledge from experts, through nurses, to travellers. As the literature revealed little on this, a much more open, broader approach to analysis is required.

Grounded theory is a qualitative research methodology described by Glaser and Strauss (1967). Epistemologically it offers a contrast to the traditional scientific deductive approach by which a pre-existing hypothesis is tested. Instead, grounded theory emphasises the generation of theory from data during the process of research. This approach lends itself to the study of social phenomena, particularly those for which there is little existing research-based knowledge. Originally a grounded theory approach advocated research without any pre-conceived framework (Benton, 2000). Rather than moving in a linear direction, processes were iterative and concurrent, using constant comparison of data to shape both the next research stage and to adjust the emerging theory.

However, schisms developed between the originators Glaser and Strauss, and later in the various interpretations of grounded theory by other researchers (Denscombe, 2003). What remains a central tenet is that theories should be generated by the data. It is now expected that a more systematic approach should be adopted than was perhaps employed in some early research. This is both a challenge to the notion of setting out with a 'blank' mind (requiring instead an open mind); and a response to the demand for reliability and validity, or at least an audit trail to indicate how the research and the theory-generation proceeded. Table 3 shows how systematic stages were planned for this study.

Grounded theory analysis is therefore used to allow the data to reveal concepts that are not yet recognised or understood. It offers a broad, strategic view of the

phenomenon of the consultation. Unless this is first established, it is difficult to know in advance of the data whether other techniques – such as conversation or discourse analysis – are going to be useful. Silverman (2001) describes a need for a ‘funnelling’ technique in research: this supports the analysis techniques selected for this study as they represent the broad top of the funnel. As a result of this initial analysis, there is later potential to re-use the raw data and subject it to other forms of analysis such as discourse analysis to examine more specific perspectives (the narrow part of the funnel). However, the subject of pre-travel consultations needed grounded theory analysis to first reveal the issues which could later guide subsequent research. In Chapter 8 the chosen methods and analysis techniques are subject to critical reflection. The potential for re-analysis of the data using techniques such as discourse analysis is made in the light of findings that were not pre-conceived, but which emerged as the result of using content analysis from grounded theory.

Although grounded theory is derived from the original work of Glaser and Strauss (1967), it has been subject to critiques, refinements and adjusted applications since then, and in many different subject areas. It has long been accepted that no single, original model of grounded theory analysis should be used by all researchers. Turner (1994:200) states:

“There is no need to search for an orthodoxy here: the format chosen is likely to be one which fits both the investigator and the kind of problem under scrutiny.”

In health care research grounded theory is recognised as an important method for the content analysis of qualitative data. In selecting this approach the aims were to display, organise, reduce and make sense of the data. Analysis was firstly undertaken using a systematic transcribing and coding process, drawn from the literature on qualitative methodology, and described in Table 3 and illustrated in

Appendix 6. It was derived through examination of the main techniques advocated in the research literature, particularly that of May (1997); Parahoo (1997); Cormack (2000); Blaxter et al (2001); Silverman (2001); Bowling (2002); Denscombe (2002, 2003); and Hammersley (2004). These authors all use congruent analysis techniques originally derived from Glaser and Strauss (1967), which they describe in different levels of detail and application. Therefore their writing does not present a choice of different approaches to be selected from, but illustrates broad acceptance and use of key stages of analysis. Table 3 represents these and permits the data analysis to be based upon recognised and accepted conventions of good practice. It was also designed to fulfil the main research aim of describing the hitherto unknown phenomena of pre-travel health consultations, their content, dynamics and salient features.

Grounded theory method guides the collection and analysis of data but does not define which perspective a researcher should adopt (Parahoo, 1997; Moore, 2009). Sim and Wright (2000:47) differentiate and define “...*potentially confusing terms...*” used in association with grounded theory, such as phenomenology, hermeneutics, ethnography and symbolic interactionism. Whilst Denscombe (2002) places these (and others) under an umbrella term of ‘interpretivism’, they do share an ontological basis in their questions about the nature of the social world, and belief that social reality is subjective. Table 3 (particularly section 3) illustrates a broad interpretivist approach is to be used during data analysis, rather than a unitary perspective (as supported by Ghezalje and Emami, 2009). However, it is acknowledged that the data could be subject to future, different analyses – for instance symbolic interactionism which Sim and Wright (2000:47) describe as “...*a sociological perspective*”, and which Moore (2009) separates out from an erroneous automatic association with grounded theory. A specific, focused

analysis of the data from a symbolic interactionist perspective would add to knowledge about the self-images and roles of the protagonists within a consultation. A call is therefore made in section 8.5 for the expertise of disciplines such as sociology and psychology to further illuminate understanding of pre-travel healthcare and consultations.

Table 3: The process of qualitative data analysis for method three AV recordings of consultations.

What?	Why?	How?
1 Transcribe the AV recordings	To display the data. To become familiar with the data.	<ul style="list-style-type: none"> • Code each speaker: N = Nurse, T = Traveller, O = Other. • Number the lines of text in the transcript, and mark where each minute of the AV recording corresponds, for ease of reference. • Record all spoken utterances (words). • Record tonal quality (e.g. raised voice). • Record emphasis place on particular words and silences. • Record paralinguistics (e.g. laugh, sigh). • Record non-verbal language (e.g. frown). • Record actions (e.g. nurse checks computer, gives injection).
2a Selective coding of the transcript	To organise and reduce data. An initial broad sweep of the data to identify the structures and processes within the consultation. At this stage outcomes were not analysed, because although each consultation has <i>consequences</i> , Donabedian (1990) intended the term to refer to actual changes in health status or knowledge, and these were not measurable at this stage of the research.	Colour code transcript text to identify structures and processes.
2b Descriptive coding of transcript	To further organise and reduce data.	<p>Data relating to <i>Structures</i> assigned into a categories framework identified from method one documentary analysis and used in method two audit tool.</p> <p>Data relating to <i>Processes</i> assigned into two frameworks – assessment and interventions/advice, with sub-categories identified from method one documentary analysis. See Appendix 4 coding framework and Appendix 6 transcript.</p> <p>Data segmented to identify the phases of the consultation.</p>
2c Open coding of transcript	To look for unforeseen categories and themes.	<p>Check each transcript, AV recording and notes for data that:</p> <ul style="list-style-type: none"> i) cannot be easily classified: artefacts, oddities, exceptions, singular occurrences; and ii) to develop themes, look for commonalities and concepts that arise separately from the pre-existing categories in 2b.
2d The	To build connections between methods;	Write up themes for each method.

beginning of axial coding	to go back and forth between methods to explore the development (or limits) of themes.	Go back and between the data for other methods to look for evidence to deepen or (refute) that theme.
3 Interpret the data	To make sense of it.	Describe it. Comment on or discuss: <ul style="list-style-type: none"> • regularities • inconsistencies • how categories/concepts link and relate to each other... • ...and to theories • an explanation... • ...and plausible alternative explanations • address links with other methods • have these findings answered the research questions? • how did findings shape the design of methods five (post-travel interviews) and six (focus groups with nurses)? • what are the implications for a new model of consultation? • what are the implications for future practice or research? • how these factors relate to the literature.
4 Critique the material	To demonstrate awareness of bias, flaws and weaknesses in this study. To address validity and reliability.	

Silverman's (2001) method of coding transcriptions was specifically adapted for this study to ensure consistency in the transcribing and analytical processes (Appendix 3).

The second analysis tool used was the RIAS, selected to elicit quantitative, objective and standardised features of the interactions within the consultation, and to test validity of the qualitative findings (Roter and Larson, 2002; Roter, 2005). RIAS is a method of coding linguistic-based medical dialogue directly from the AV recording, and processing it through Access and Statistical Package for the Social Sciences (SPSS) databases to provide a quantitative analysis of the segments and utterances within the consultation. RIAS has been tested extensively in consultations in a variety of settings (Roter and Larson, 2002; Roter, 2005), but never with practice nurses in the unique pre-travel consultation. Based upon social exchange theory derived from the work of Bales (1950, cited by Roter and

Larson, 2002), RIAS provides ‘big picture’ measures of the phases of a consultation, designates ‘blocks’ of talk, and further drills down to assign mutually exhaustive categories to all utterances (shown in Appendix 5). RIAS authors explain that blocks of talk can be adapted or extended to include topics of specific interest within a study. These, together with three changes to the terms used to describe phases of the consultation, are shown in Table 4.

Table 4: Examples of RIAS codes.

	RIAS terminology	Adapted version
Nomenclature for phases of a consultation	Opening	Opening
	History taking	Assessment of risks
	Examination	Physical treatments (vaccines, malaria prophylaxis)
	Counsels	Advice/information
	Closing	Closing
<i>Blocks of talk</i>	Varies according to content and specific interest about the consultation	Block 1: Nurse <i>assessment</i> of eight specific risks, as identified in method one documentary analysis Block 2: Nurse <i>advises</i> re: those eight specific risks
<i>Categories of utterances</i>	40 categories	Original categories used

The findings are presented in Chapter 5, *Phase Two: What do practice nurses say and do?* and in Chapter 6, *Phase Three: What do travellers say and do?*

3.3.4 Method four: Travellers’ diaries

The fourth method in the research design was to ask participants to keep diaries during their travels abroad. Travellers’ diaries were designed to prompt observations on real or perceived, actual or potential health risks to the traveller,

and offered the opportunity to engage service users directly in the research process. According to Sim and Wright (2000) diaries can answer both exploratory and descriptive research questions, and in this study one of the research questions posed is: *How do travellers use the education, information, advice and interventions gained from the consultation?* The aim was that diaries would be the catalyst to answering this because they offered certain advantages, e.g. the diary findings would help structure the telephone interview schedule for method five, and were expected to reduce recall bias, which may be high if *only* telephone interviews are used. Some researchers report better response rates when using electronic diaries (Coombes, 2001). Walker *et al* (2004) list the added advantages that data are easy to verify, analyse and summarise if collected electronically. A study by Weiler *et al* (2004) presents contesting results, whereby paper diaries were found to yield results indistinguishable from electronic formats, but 85 per cent of patients preferred a paper format. Their conclusion that the choice of data collection tool should depend upon the features of each study is a realistic one because providing electronic diaries was out of the financial and pragmatic reach of this study, and therefore paper diaries were used.

Sampling and recruitment

The sample set were those travellers consulting with nurses (n = 32). This comprised non-probability, convenience sampling of the first five travellers (per nurse) to consent to become participants. Their recruitment has been detailed in method three, above.

Tools and piloting

The diaries consisted of a front page with a participant identification code and brief instructions about how to complete the diary while abroad, together with a

stamped, addressed envelope for its return. Inside, a sample entry was shown, and a page provided for each day in a two-week period (more pages were provided for longer-term travellers). Each page asked three questions: *Please describe your health problem or risk; Was this a new problem for you? What did you do to avoid, treat or manage this problem or risk?* These questions were devised pragmatically to meet the needs of the study because few examples are published in the literature about diaries as a research tool. Their purpose was to provide an *aide mémoire* to the traveller, and to enable the researcher to use them in preparing the interview schedule for method five. The final page thanked the traveller for their time and provided a reminder to post the diary to the researcher upon their return.

The diaries were designed to be quick and simple to use, and to fit within the passport. They were piloted with two travellers before use in the study. No changes were required for the textual content or the process of using the diaries, but different formats and bindings were experimented with to achieve a user-friendly, robust, passport-sized instrument. The pilot travellers reported their ease of use, and a sample diary is provided in Appendix 7.

Data collection and analysis

Data collection took place between April and December 2007 by giving diaries and postage-paid return envelopes to all traveller participants after their consultation was recorded. Reminder letters to return diaries were posted to all participants, to arrive on the day of their return to the UK. If diaries were not returned within seven days, a second reminder was sent.

Content was analysed using a coding framework to identify the perceived health risks and adverse health episodes experienced by travellers, and the actions they took to manage their health or ill health. The findings are presented in Chapter 6, *Phase Three: What do travellers say and do?*

3.3.5 Method five: Interviews with travellers

A semi-structured telephone interview was chosen as the most suitable method of capturing the health experiences of travellers abroad, to compare with the content of their pre-travel consultation. Whereas the video consultation represents the *pre-travel* part of the participants' pathway, and the diary represents their *during-travel* pathway, the telephone interview completes the cycle of their health experiences by exploring the *post-travel* pathway. The aim of the interview method was to answer three aspects of the research questions:

1. How did the participant use (or disregard) the contents of their pre-travel consultation?
2. What coping or prevention strategies did participants use to manage their health?
3. How did they acquire that knowledge, skill or attitude?

This will contribute to the knowledge of health issues from travellers' perspectives, a concept that is currently fragmented and poorly understood within the literature.

Interviews with travellers offered an opportunity to check the validity of the researcher's findings and interpretations of the consultation recordings and diaries used in methods three and four. The semi-structured interview met a need of the research to explore themes arising from previous methods, yet allow for new, perhaps unanticipated concepts to be aired. Careful design, administration and analysis can achieve both rigour and freedom to explore arising issues (Parahoo,

1997). By loosely following an interview schedule the researcher can gain specific data to answer the research questions, but is also free to explore arising topics in depth, and to encourage the participant to talk about the factors that were important to *them*. The research participant is therefore active in jointly setting the agenda, although it is acknowledged that this is within the parameters set by the researcher (Clarke, 1999). Emerging themes can be compared with those arising from the wider literature, the documents analysed in method one, and themes emerging from previous methods. Other advantages include potential access to emotions, experiences and feelings, an access point to sensitive issues, and the production of data that Denscombe (2003) refers to as 'privileged information', which might not be available through any other means of data collection.

However, the apparent simplicity of recording a structured 'conversation' is a potential hazard for researchers, requiring careful planning and constant awareness of the sensitive and complex paths of human interaction. The risks of getting it wrong include the production of poor and invalid data, and negative impacts upon participants (e.g. a sense of invaded privacy, or wasted time). There are other factors affecting the nature and progress of an interview that might not always be apparent, and yet exert an influence upon the results. These include age, gender, social and ethnic differences between the researcher and the participant. To counteract this, Denscombe (2003) suggests the researcher adopts a passive and neutral manner, including their dress and appearance, although this can be contested: what is 'neutral' to one person, for instance a grey suit, is loaded with authoritarian values to another individual. Although such visual cues are absent from telephone interviewing, the voice and accent cannot be considered 'neutral', as Denscombe would imply. Ethical boundaries also need to be preserved, such as tactics to avoid being drawn into agreeing or disagreeing

with a participant's viewpoint, which could risk appearing antagonistic or partial. The interpersonal skills required by the researcher are manifold, and well documented elsewhere (Parahoo, 1997; Cormack, 2000; Sim and Wright, 2000; Denscombe, 2003). The salient skills needed within these interviews include:

- attentiveness
- the appropriate management of silences
- the use and timing of prompts and probes
- using paraphrasing or mirroring of what the participant has said in order to check understanding of their intended meaning
- clarifying information and seeking examples
- avoiding leading questions
- the purposeful use of open or closed questions.

Participants may feel awkward or intimidated knowing the discussion is being recorded, and the researcher has an ethical duty to allow time to put the participant at ease, to explain how confidentiality and anonymity will be maintained, and to avoid coercion (Oliver, 2003).

The possible advantages of conducting a face-to-face interview over a telephone interview include the ability to pick up on non-verbal cues by the participant. On balance, this was considered to be relatively less of an advantage in this phase of the study than the practical benefits offered by the telephone technique. As written, informed consent had already been achieved when first meeting the participant at the surgery, continuing consent was checked verbally at the start of the telephone interview. This method also enhanced the ability of the researcher to conduct the interview at a time that was most convenient for the participant, and offered considerable savings in time and travel for the researcher. Such

pragmatic considerations must be balanced with methodological rigour in a single-handed, self-funded study such as this PhD.

Sampling and recruitment

The sample set were the same travellers who consulted with practice nurses in the AV recordings and completed travellers' diaries (n = 32).

Tools and piloting

The design of the interview schedule was informed by several factors relating to the content, the order of questioning, and interviewing techniques. The content and choice of topics arose from the literature and findings and interpretations from previous methods. Findings and themes from the video-recorded consultation (method three) and the traveller's diary (method four), also contributed to question formation in the interview schedule, e.g. whether products recommended by the nurse were used. Findings from the official guidance documents were influential in deciding on interview topics, and the schedule reflects their key categories such as infectious disease prevention, bite protection, food and water hygiene, and sun exposure.

The logical ordering of topics was derived from the literature on patient education and communication skills – for instance, the requirement to move from simple to complex issues, neutral to potentially invasive or embarrassing topics, is propounded by various authors (Nelson-Jones, 1996; Burnard, 1999; Quinn, 2000; and Redman, 2001).

Interviewing techniques (such as managing silence, or the use of closed or open questions), are well articulated in research literature (Parahoo, 1997; Bowling, 2002; Weinberg, 2002). These were applied and checked in the pilot study and as an ongoing concern throughout data collection and analysis.

Appendix 8 contains the generic interview tool, but there were slight variations during data collection because the semi-structured nature of the design allowed participants to develop lines of discussion relevant to their experiences. For instance, the interview tool contains lists of possible topics to discuss, e.g. malaria prevention. If the participant had not visited a malarial region, this question was omitted.

The design of the interview schedule applied the following principles:

- An introductory phase to establish the ground rules for the interview;
- An ice-breaking phase to set the participant at ease and to start the interview process;
- The main questioning phase, moving from simple to complex, non-threatening topics to potentially more sensitive ones (e.g. discussion of sunburn came before diarrhoea, and diarrhoea before sexual health), unless the participant freely changed this taxonomy of questioning;
- A clarification phase: the participant was invited to offer any further topics that had not been discussed, or to ask questions. The researcher summarised their understanding of the main issues and checked for accuracy with the participant;
- A closure phase for the researcher to thank the participant for their time, confirm arrangements for feedback and provision of a book token.

The interview schedule, equipment and technique were piloted on two travellers who were not included in the final sample. The following changes were made as a result of the pilot:

- Electronic feedback problems were eliminated by re-positioning the recorder further away from the telephone;
- Reflexive separation of the roles of *nurse* and *researcher* within the principal investigator. There was a temptation to ask the traveller about their health, as if they were consulting with the investigator as a nurse. The pilot recordings honed the interview technique to avoid blurring these roles;
- Questions were added to the interview schedule to facilitate greater depth of answers, to ask about perceptions of risk, and to align the questions with the categories of risk identified through the documentary analysis.

Data collection and analysis

Data collection took place between September 2007 and July 2008. Travellers received a pre-arranged telephone call at a time and number preferred by the participant, and at the researcher's expense. This was timed to be approximately two weeks after their return from travel, a period of time judged to be early enough to reduce recall bias further, but late enough to allow any travel-related problems such as jet lag or minor infections to have resolved or been diagnosed.

Arrangements were made for the researcher to call again if the planned interview was at an inconvenient moment for the participant. At the end of the interview travellers were thanked for their participation and sent a book token in recognition of their time.

An automatic two-way telephone conversation recorder was used (Phonapart TL1076) with a new 90-minute tape cassette for each participant. Interview recording was conducted within the Office of Communications (OFCOM, 2007) guidelines, notably informing the participant on tape that the interview was being recorded, and ensuring their consent was still current before proceeding.

The tapes were transcribed in an environment that ensured the participant's confidentiality, using the conventions and style previously described for the transcription of the AV consultation recordings. Analysis of interview transcripts followed the framework used in the interview schedule to identify:

1. episodes of ill health or health problems
2. how the traveller managed and dealt with that problem
3. how they *knew* how to manage that problem
4. whether they had specifically employed advice given to them in their consultation
5. whether they had chosen not to act on advice received in their consultation.

Points four and five required comparative analysis between advice given by the nurse in the AV recordings of consultations and evidence of the traveller acting in accordance (or not) with that advice. A final element of analysis was thematic, to search the data for evidence to support or refute themes that had emerged from previous methods, or for any new themes. The findings are presented in Chapter 6, *Phase Three: What do travellers say and do?*

3.3.6 Method six: Focus groups with practice nurses

Focus group interviews with practice nurses formed the sixth and final method in the study, and were used to explore current practice, and the potential structure, process and content of an 'ideal' pre-travel consultation. They provided a useful form of triangulation to test the validity of findings from other methods, and to provide a rationale and shape of a prototype for the new model of consultation.

Focus groups have been defined as “...*an interaction between one or more researchers and more than one respondent for the purpose of collecting research data*” (Parahoo, 1997:296).

This method was chosen to gather data because it offered the following advantages:

- Focus groups are a recognised method in health care research, particularly for exploring health promoting beliefs and activities (Parahoo, 1997);
- There is an opportunity to use group dynamics and interactions to generate more ideas and perspectives than might be achieved through individual interviews (May, 1997; Sim and Wright, 2000);
- They are a forum to test the validity of findings from other methods; a useful form of triangulation (Adami and Kiger, 2005);
- An assessment can be made of the degree to which health professionals support, oppose or contribute to a proposed new model of pre-travel health consultation (Sim and Wright, 2000);
- Focus groups can be a cost-effective way to gather data (Parahoo, 1997).

Sampling and recruitment

A minimum of 20 and maximum of 30 participants were sought for method six. Five focus groups of between two and six practice nurses were achieved, with a total of 23 participants. This represented non-probability, purposive sampling, because the aim was not to represent the whole practice nurse population evenly and equally, and participants were selected according to criteria – the nurses had to engage in travel health care and work in general practices that had not participated in the audit of structures and AV recordings of consultations. Potential participants were identified through general practice addresses available in the public domain. PCT and practice details, including whether travel health services were provided, were available via the Internet. Only those practices within PCTs who had given ethical permission, and who had not provided participants for previous methods, were selected. Letters of invitation and participant information

sheets (Appendix 2) were sent to 35 nurses in 20 general practices. A response rate of 66 per cent was achieved: six declined, one did not attend, five could not make any of the dates offered, and 23 participants completed the focus group interviews.

Despite a non-probability sample, the 23 practice nurses worked in a variety of general practices, from one single-handed GP practice to those with partnerships of eight, ranging from rural branch surgeries, suburban premises, to inner city practices. They had a range of experience within practice nursing of between six months and over 20 years, and none were newly qualified. Although information about age was not specifically collected or required for this study, the participants appeared congruent with statistics that 46 per cent of practice nurses are over the age of 45 (RCN, 2009b). A pre-paid envelope was provided for replies, and the nurses accepting participation were then contacted to arrange the date and venue most convenient for them.

Tools and piloting

The process of developing a discussion schedule was similar to that of the interview schedule used for travellers – the topics to be discussed were distilled from the literature on consultations and travel health, and from the findings and themes from previous methods in this study. They are detailed below under *Data collection and analysis*, and a discussion tool about consultation styles is found in Appendix 10. The role of the researcher was different from other methods, and in the literature is variously called a moderator or a facilitator rather than an interviewer, reflecting the different processes to be managed in focus group discussions (May, 1997; Sim and Wright, 2000; Parahoo, 2007).

The discussion schedule was piloted with a group of four nurses who were not included in the final study. This permitted familiarisation with the recording equipment, playback and transcription process, and to check on timing. The pilot transcript was used to assess the researcher's techniques as discussion facilitator and appropriateness of the discussion topics. Techniques used with groups, e.g. ensuring every participant's views are heard, or the use of probe questions, were already familiar to the researcher, but the pilot provided an opportunity to check and reflect on these, and to ask for objective feedback from group members. No major changes were required.

Data collection and analysis

The five focus groups were held in September 2008. An Olympus DS50 digital voice recorder with multi-directional microphone was selected because of its silent and discreet operation, and software compatibility with Windows programmes for playback and transcription. The process was to welcome and introduce participants, establish ground rules and rapport, facilitate the discussion using a semi-structured schedule, and to close proceedings. The full schedule is shown in Appendix 9.

The recordings were stored according to data protection requirements, and transcripts created to organise data for analysis. Silverman's (2001) adapted transcription technique, as used for AV consultation recordings and interviews with travellers, was employed (Appendix 3). Consideration was given to coding using qualitative data analysis software, and introductory training was undertaken on an NVivo programme. This offered potential advantages such as auditing the analytical process, and to a degree, checks on reliability and validity. The timescale for the study and full NVivo training did not coincide, and therefore

analysis was started 'by hand'. This proved to be advantageous because thorough familiarity with the data was gained, enabling interrogation of a small sample in greater depth and accuracy than was achieved through an NVivo pilot.

The content was first analysed by each of the eight topics to make explicit the full range of responses to each topic. Data were then searched and categorised by themes identified in previous methods. These were analysed for congruence with, or dissonance from those themes. Finally, the contents were searched for any new concepts or themes not found in previous methods. Analysis was undertaken using the researcher's interpretation of text to allocate it to coding categories and themes. Computerised colour coding and cutting and pasting of text facilitated this stage. Secondly, computer keyword search functions were used to check all text had been found and appropriately categorised within a topic, code or theme. The findings are presented in Chapter 5, *Phase Two: What do practice nurses say and do?*

3.4 Ethical considerations

Regard for the ethical aspects of this research formed a continuous thread throughout. During the planning stage people from the potential sampling frames were invited to comment and contribute to the research design. Four practice nurses, four travellers and two GP gatekeepers across two general practices were involved, and all expressed a willingness in principle to take part in or to facilitate such a research study within their practice. One nurse expressed anxiety at being video-recorded; whilst in the second practice video-recording was in regular use by both nurses and GPs as part of peer- and self-review of practice, and those nurses were very willing to take part. Travellers, once the purpose of the research and the requirements of them were explained, also expressed a willingness to

participate and one voiced an opinion that it felt good to be helping health services in this way. These views assisted the design, methodology and feasibility of the study. The University, PCT Research and Development staff, and local NHS REC reviewed and approved protocols for the research design and execution, and the study was allocated REC protocol code 06/Q2005/95. Letters of invitation, participant information sheets and consent forms are provided in Appendix 2.

Consenting participants were allocated a coded identification number to ensure that the anonymity and confidentiality of people and places were maintained (Wisker, 2001). Their contact details were retained so that arrangements for data collection could be made or altered, to inform them of the progress and outcomes of the research, and to provide recompense for travel or a small gift in recognition of their participation. The Data Protection Act (Parliament, 1998) governed the storage of personal information, and arrangements were made for electronic and paper data storage to comply with the Act, and accepted by the NHS REC for this study. To ensure anonymity was maintained in writing the thesis, codes and numbers originally allocated during data collection were reassigned.

General principles of consent apply to this study, and informed consent was actively sought, and accepted if freely given. It was made clear that participants were able to withdraw if they wished. The consent of traveller-participants to take part in method three required additional consideration because of the use of AV recording during their consultation. The General Medical Council (2002) recommendation is that participants should be asked to sign a consent form prior to, and again after the filming of their consultation. This provides a genuine opportunity for an individual to change their mind, for instance because of some occurrence within the consultation that they do not wish to share. In respect of

this, the application to the NHS REC for this study contained two consent forms for traveller-participants; a general one for entry into the study, and a specific one for the consultation recordings (Appendix 2).

In method four, the front page of the diaries carried the traveller's identification code, so that if lost in the post they were not attributable to the participant. A maximum of two reminders were sent if diaries were not returned, a decision made in an attempt to gain the best response rate without harassing the participants. Those who took part in the telephone interviews occasionally apologised for not having returned their diary, and care was taken that they were not made to feel awkward about this, and to reassure them that their continued participation in other parts of the study was greatly valued.

It was anticipated that travellers might feel intimidated knowing the telephone interview was being recorded. At the start of the call the researcher checked the time of the call was convenient for the participant, explained how confidentiality and anonymity would be maintained, took care to check for continuing consent and to avoid coercion, and tried to put the participant at ease (Oliver, 2003). Ethical boundaries needed to be preserved during the discussion, and the researcher was careful to avoid being drawn into agreeing or disagreeing with a participant's viewpoint, which could risk appearing antagonistic or partial. Tapes and transcripts were coded to protect the anonymity of participants and kept in locked storage to maintain their confidentiality under the Data Protection Act (Parliament, 1998) regulations.

Inconvenience to focus group nurse participants was minimised by arranging a variety of venues, dates and times for them to choose to attend. As with all other

methods, participation was optional and subject to consent. Ground rules were established with each group prior to recording the interviews to encourage open, respectful debate and to allow the expression of different opinions. An agreement of confidentiality by the researcher and by participants was reached. Thank you letters and small gifts (educational resources and a book token) were provided to acknowledge the participants' time, travel and expertise.

3.5 Methodological rigour

Ways to reduce bias were built in to the methodology during the research design phase of the study. Consideration of how to minimise or recognise bias was ongoing through the different stages of the research, and is reported in the relevant sections on data collection, analysis, findings and discussion. Table 5 provides a summary of the actions taken to reduce bias. In particular, care was taken to establish appropriate relationships with participants through honest explanations of the scope and purpose of the research; awareness of personal and professional self, and the potential effects upon participants (Appendix 2 correspondence with participants provides some evidence of this).

Table 5: Actions taken to reduce bias.

Type of bias	Actions
In the literature review	Systematic searching; recognition of 'saturation' point when no new papers or concepts were uncovered; use of critical review tools to appraise publications.
In the research design	Inclusion of experts, nurses and travellers in order to examine the pre-travel consultation from different perspectives. Selection of Donabedian's framework to organise, examine and synthesise methods, data and analysis. Bricolage design to select the methods most suited to answering the research questions, and to triangulate approaches to an issue. Scrutiny by both the University and the NHS REC.
Sampling and recruitment bias	Selection of domain: the locality did not have specialist travel medicine units or teaching centres likely to influence local services. Selection of general practices to avoid known colleagues and therefore potential bias.
Data collection bias	Choice of research methods, e.g. video recording of consultations enabled the researcher to remove self from the consultation. Pilot studies. Adherence to the normal practice within surgeries, e.g. clinic and consultation times. Setting up data collection tools and equipment to maximise reliability and validity, and to minimise impact upon participants, e.g. choice of an unobtrusive camera and tripod position.
Data analysis bias	Designing tools to maximise reliability and validity. Pilot studies. Triangulation through bricolage design enabled comparison of findings from different methods. Coding frameworks testing: method three against RIAS and method six by a peer. Keeping an audit trail of all data, findings and decision-making for PhD supervisors and examiners.
Biased interpretation or conclusions	Searches for other explanations; clinical and doctoral supervision; peer testing. Crosschecking findings from method three consultation recordings with method five interviews with travellers and method six focus groups with practice nurses.
Researcher bias	Supervision from experienced primary care researchers and research training at the University of Warwick. Personal reflection, clinical and research training and supervision.

The concepts of reliability and validity were considered throughout the research process. Reliability relates to how well the research has been carried out and whether methods are consistent – for instance, whether another researcher could replicate the research and findings using the same tools. Although it can be argued that reliability is problematic in qualitative research because individual

cases and contexts can vary so much, it is nevertheless important to provide a clear audit trail of research activity to show how findings and interpretations were reached (Wisker, 2001). This study considered reliability relating to each of the six methods; carried out pilot studies to test them; maintained an audit trail of data collection and writing; retained data in line with University of Warwick guidelines; kept a book of field notes and memoranda recording the research process and the development of ideas; and used a senior nurse with experience of both research and travel health to examine the findings and discussion using the analytical frameworks developed for this study. Ten percent (n=3) of each set of transcripts from the AV recordings, interviews with travellers and focus group discussions were checked for reliability. The technique involved assigning each section of talk into a category, then the coding was compared to that of the researcher. An inter-rater reliability score averaging 80 percent was achieved, meaning identical categories had been selected for eight out of ten sections of talk. Analysis of the 20 percent assigned to categories that differed from the original researcher showed that some ambiguity was possible, e.g. talk relating to first aid kits could be assigned to the category 'personal safety', or to 'exposure to blood and body fluids' (see also Appendix 4). Therefore the wider context of talk needed to be taken into account to clarify which category was the most accurate in which to place the comment.

Validity is central to the integrity of research (Cormack, 2000; Denzin, 2006). It refers to the strength of the findings and conclusions, and whether they are judged to be correct or true. Like reliability, in qualitative research a single, irrefutable result is often inapplicable or irrelevant because of the need to take into

account different perceptions of 'truth'. There are different perspectives to validity to assist with this.

External validity relates to the generalisability of the findings. It is not claimed for this study because of the small sample. Instead, the objective is to create, with stakeholder involvement, a prototype model for pre-travel health consultations ready for post-doctoral testing. In line with Coleman's (2000) recommendations, notes were kept about the response rates to look for indications of something different about participants or non-participants that skewed involvement in the study, and therefore also potentially skewed external validity. Each of the methods used in the study are long established in qualitative research, and the tools for each were developed with attention to recommendations from the published literature on qualitative methodology. The RIAS tool has been subjected to tests for reliability and validity (Roter and Larson 2002; Roter, 2005), and the coding technique within the University was successfully tested for reliability with the original developers at Johns Hopkins University, Baltimore.

Content validity was sought by drawing upon the known literature for tools such as the audit of resources available to practice nurses, the AV recordings and RIAS categories for analysis, and the interview schedules devised for travellers and nurse focus groups, and piloting them with participants drawn from the groups researched, thus validating the tools as representative of what is known. Internal validity refers to the extent to which an instrument or tool measures what it is intended to, so that conclusions are valid and just. For instance, in the AV recordings of consultations, the concept of internal validity aided assessment of whether the process of being filmed would alter the behaviour of participants. Ways to reduce this included unobtrusive camera positioning and scrutiny of the

recording for unnatural behaviour such as continual glancing at the camera, or exaggerated actions, which may indicate such issues. Trochim (2006) suggests the alternative term of *credibility* to replace internal validity, requiring the results of qualitative research to be believable. To assess this, interpretations from the documentary analysis were verbally checked with nurse participants; interpretations relating to the consultation recordings were checked with the travellers who had participated and with practice nurses during the focus groups; and interpretations of diary entries were checked with the travellers during their interviews.

The focus groups were also used to explore other possible explanations of processes used within consultations. A powerful example of a credible or valid interpretation was the description of different consultation styles in Appendix 10, which were drawn from observations of the consultation recordings, and validated by nurse participants in the focus groups.

An audit trail of data collection, analysis and interpretations was kept, e.g. original recordings and transcripts were kept to allow verification with other researchers within the NHS REC boundaries.

The bricolage design proved useful in providing triangulation of methods and findings to strengthen concurrent validity within the study (Adami and Kiger, 2005; Williamson, 2005). For instance, results from the established validity of the RIAS tool were congruent with findings arising from thematic analysis.

3.6 Conclusions

The bricolage technique of combining different methods carries risks of producing masses of data that are unwieldy to analyse, and creating breadth rather than depth of meaning. These problems were avoided through developing a methodology designed to answer specific questions, and an iterative analytical process to identify and develop the main themes running through all the methods. A summary table to show the methods chosen to answer the research questions is shown in Table 6. Although no single method in itself can be said to be original, the combination used in this study is believed to be an original contribution towards understanding the phenomenon of the pre-travel health consultation. In particular, the views and actions of different stakeholders are revealed, and are elucidated by the structure of the thesis which now moves on to present these in three phases: the experts, the nurses, and the travellers. The findings from all three are then interpreted and discussed to develop a new model of pre-travel health consultations. As all practice must start from a knowledge base, that which comprises the official guidance from national and international sources – the experts – is considered next.

Table 6: Methods selected to answer the research questions.

Research question	Method of answering it
<p>1. What currently comprises the nurse-led pre-travel health consultation?</p> <p>Subsidiary aspects to this question include:</p> <p>a. What structures, processes and outcomes are currently associated with the pre-travel health consultation?</p> <p>b. How appropriate are the interventions, when mapped against the 'expert opinion' and guidance available in the literature?</p> <p>c. Do nurses consciously adopt a model of consultation?</p> <p>d. How do travellers use the education, information, advice and interventions gained from the consultation?</p>	<p>a. Method 2 - Audit of structures, and method 3 – AV consultation recordings.</p> <p>b. Method 1 - Documentary analysis, and method 3 - AV consultation recordings.</p> <p>c. Method 3 - AV consultation recordings, and method 6 - Focus groups.</p> <p>d. Method 3 - AV consultation recordings, method 4 - Diaries, and method 5 - telephone interviews.</p>
<p>2. What elements ought to be incorporated into a consultation model for pre-travel health?</p> <p>Subsidiary aspects to this question include:</p> <p>a. Is a new model needed, and what would be its purpose?</p> <p>b. How could a core model be made flexible enough to adapt to the needs of different travellers?</p> <p>c. How can the views of different stakeholders (nurse, traveller and expert), be synthesised with evidence of best practice from models of consultation, health promotion, communication and education?</p>	<p>a. and b. Literature review; synthesis of documentary, audit, video, diary, interview and focus group findings and discussion.</p> <p>c. Design of prototype model.</p>

Chapter 4: Phase One:

What do the Experts Say?

4.1 Introduction

Documentary analysis is the first of six methods used in researching the pre-travel health consultation. It draws on the official guidance for pre-travel health care produced by three national and one international health departments for health professionals, and therefore represents 'expert' opinion on the content, and sometimes the conduct, of the pre-travel health consultation. Chapter 3 *Methodology* detailed the rationale and techniques used for this method, which in brief, involved analysing and categorising the content of these four key documents:

UK: Department of Health (2001a) *Health Information for Overseas Travel*.

London: The Stationery Office. Also available online:

<http://www.archive.official-documents.co.uk/document/doh/hinfo/> (accessed on 30/07/06).

US: Centres for Disease Control and Prevention (2005) *Health Information for International Travel 2005–2006*. Atlanta: US Department of Health and Human Services, Public Health Service. Also available online:

<http://www.cdc.gov/travel/yb/index.htm> (accessed on 30/07/06).

Canada: Committee to Advise on Tropical Medicine and Travel (CATMAT) (1999) Guidelines for the Practice of Travel Medicine. An Advisory Committee Statement (ACS). *Canada Communicable Disease Report*, Vol. 25 (ACS-6) 01/12/99, pp 1–6. Also available online:

<http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/99vol25/25sup/acs6.html>

(accessed on 30/07/06).

WHO: World Health Organisation (2005) *International Travel and Health*. Geneva:

WHO. Also available online: <http://www.who.int/ith/en/> (accessed on 30/07/06).

4.2 Findings

Analysis involved iterative processes of reading and re-reading the four documents, noting then coding the main concepts and assumptions, then noting the commonalities and differences, making comparisons between the four documents and determining how they related to the literature available on the various topics addressed. Findings are presented at three different levels in section 4.3.

Firstly, an overview is provided in section 4.3.1 of the commonalities and differences between the documents, together with categories of the exposed gaps in knowledge. A summary of this analysis is provided in Table 7 below, and discussed throughout this chapter.

Secondly, an assessment is made of the different emphases within the documents which relate to themes that emerged during the analysis as being important. These are:

1. the quality of expert advice (discussed in 4.3.2)
2. the social context of the documents (discussed in 4.3.3)
3. risk awareness versus risk interventions (discussed in 4.3.4)
4. structures, processes and outcomes of the pre-travel health consultation (Donabedian's framework, 2003: discussed in 4.3.5).

Thirdly, eight categories of health risks to travellers were identified through synthesis of all of those raised in the documents. They are:

8. general considerations such as travelling with a chronic condition
9. risks related to the mode of travel, e.g. thrombolytic risk
10. environmental health risks such as heat and cold injury, altitude sickness
11. injuries and violence
12. infectious disease risks (non-vaccine-preventable; excluding sexually acquired infections)
13. infectious disease risks (vaccine-preventable)
14. malaria
15. exposure to blood and body fluids (including sexual behavioural risks).

Table 7: Summary of comparisons between the official guidance.

Documents →	UK	US	Canada	WHO
Shared authors:				
Dr M Parise		√	√	√
Dr J S Keystone		√	√	
Dr A McCarthy			√	√
Dr M Cetron		√	√	
Dr P E Kozarsky		√		√
Dr R H Behrens	√			√
Address risk assessment as a priority	√	√	√	√
Recognise traveller segmentation and need to tailor consultation	√	√		√
Address health needs of returning travellers	√	√	√	√
Overlap of content between documents	√			√
Travel health referred to as a doctor-led activity	√	√	√	√
Expected outcomes of service provision are specified				
Health priorities are stated	√	√	√	√
Provides details of expected content of a pre-travel consultation			√	
Main focus is on infectious diseases		√		
Behavioural risks to health are addressed	√			√
Evidence of contributions by nurses	√			
Risks to health are quantified				
Provides details of how to deliver travel health services				

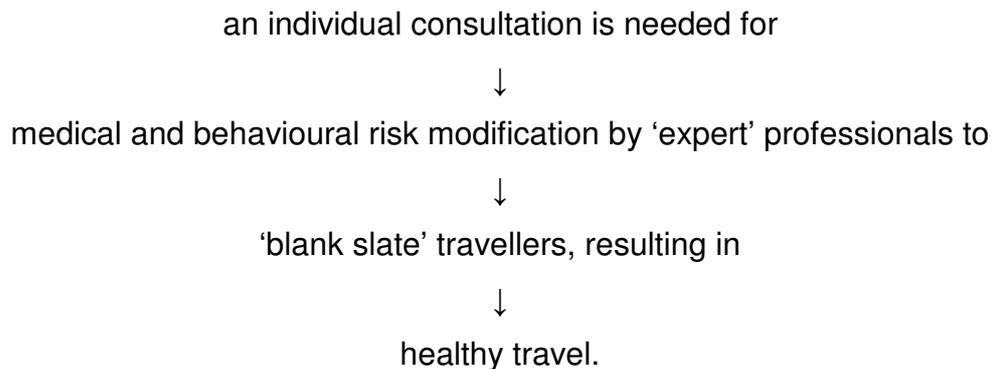
4.3 Interpretation and discussion

4.3.1 Method one: Overview of findings and themes

Analysis of the four main documents on pre-travel health care painted a picture of a new health discipline emerging in response to a global social context of increasing international travel. This is reflected elsewhere in the literature where statistics (ONS, 2008) and debate (Wilder-Smith *et al*, 2007a) concur.

Despite some differences on clinical issues, the four sets of guidance broadly share a view of international travel being subject to risks of infectious disease which can be mitigated through a doctor-led pre-travel health consultation with individual travellers. Much of the literature shares and reinforces this view (DuPont and Steffen, 2001; Keystone *et al*, 2004).

However, there is an undercurrent of opinion in the literature (e.g. Bauer, 2005) that questions the following thesis that is expressed in the 'expert' documents:



Whether this questioning of expert advice is justified or not, can be assessed from further examination of the four themes arising from the documentary research:

1. the quality of expert advice
2. the social context of the documents
3. risk awareness versus risk interventions

4. structures, processes and outcomes of the pre-travel health consultation (Donabedian's framework, 2003).

4.3.2 The quality of expert advice

Table 7 shows that one of the commonalities was that some authors contributed to more than one of the documents, indicating some degree of international co-operation and reliance on resources from more than one nation. The status and experience of the experts who contributed to the documents is of high calibre. Stemming as it does from medical experts with experience in tropical medicine, the information on infectious disease risks is detailed.

Table 7 also indicated some differences of opinion between experts, for instance, the US document (CDC, 2005) is most sharply focused on specific infectious diseases and contains some contentious statements for which evidence is not supplied, and which are not found in the UK, WHO or Canadian documents. For example:

- Recommendations for a traveller's health kit (CDC, 2005:35–36) include antibiotics for "*moderate*" diarrhoea, without discussion of the risks of contributing to microbial resistance or masking non-bacterial causes of diarrhoea. In contrast, the UK text (DH, 2001a:70) explicitly explains the dangers of doing so and outlines the exceptional instances when it may be necessary;
- Cough suppressants and expectorants are recommended (CDC, 2005: 36) although they are recognised to be of limited, if any, efficacy;
- Epinephrine (adrenaline) auto-injectors are recommended "*...especially if history of severe allergic reaction*" (CDC, 2005:36). However, the *British National Formulary* (British Medical Association (BMA) and Royal

Pharmaceutical Society of Great Britain (RPSGB), 2006) recommends that these prescription-only items should be provided for individuals *only* if there is a history of severe allergic reaction;

- Variant Creutzfeldt-Jakob disease is included as a food and water-borne infection presenting a risk for US travellers to the UK (CDC, 2005:86).

One commonality between the documents is the frequent acknowledgement that a research base for recommendations is often lacking. The US document stated when there was no research to support a recommendation, and where available, provided the sources used to compile the advice, making its evidence base more visible and reliable than that of the other documents. The introduction to the Canadian document (CATMAT, 1999:2) states: "*While these guidelines are not evidence based...*", and infers the desirability of recommendations being backed by evidence which has been assessed for its strength. Elsewhere (Preamble, p.1) "*...scientific knowledge and medical practices*" is referred to. This is in keeping with the findings of the literature search for this study, whereby the paucity of research on best practice in the pre-travel health consultation was noted. It is clear that much expert opinion is anecdotally derived, the research for the young discipline of travel health displaying many gaps and omissions. This is particularly the case for rigorous evaluation of the outcomes of providing a travel health service. The UK document (DH, 2001a) acknowledges this: the preface recognises the "*...limitations of the data on which...assessments sometimes have to be made...*" (p.iii) in travel health, and it relies heavily on source material from earlier editions of the WHO document.

The weighting of medical opinion in the creation of these documents means that there is a comparative lack of other perspectives. Notably the nursing voice is

quiet, as only one nurse contributor was identified in the UK document (Table 7 above). This is an inaccurate representation as nurses provide the majority of pre-travel health care in the UK (Carroll *et al*, 1998). The Canadian document recommends that a nurse engaging in travel health care should be licensed (registered), and working “...collaboratively...” with a physician (p.2), and all post-travel consultations “...should be managed by a physician”. The WHO document uses terms such as medical advisor, medical practitioner, physician, medical advice, implying that pre-travel health care is the domain of the doctor. The argument that pre-travel health care should be doctor-led now seems out-moded in the UK where most pre-travel health care is nurse-led. The role these guidelines permit for the doctor in post-travel illness is also one that suitably experienced nurses could undertake today (Willcox *et al*, 2006), although educational needs and competencies of practitioners are not addressed. However, the context of this document – Canada in 1999 – was one in which nurses did not have a dominant role in travel health; it was then mainly the preserve of doctors. Findings could also be symptomatic of the threat that the rising professionalisation of nurses poses to the status of doctors, and an attempt to protect traditional boundaries. All documents are perhaps indicative of nurses’ lack of engagement in and influence on travel health research and policy creation.

If the nursing voice is not resonant in the provision of expert advice to the discipline of travel health, neither are the voices of other professions such as health psychologists and health promotion specialists. This is evident in the way that techniques of *how* to deliver travel health care are almost non-existent in the official guidance documents (Table 7). The model of consultation is not considered – indeed the Canadian document infers that doctors should approach the pre-travel health consultation just as they would for any other (usually ill)

patient contact. Although there are plentiful suggestions of *why* to include certain topics in a pre-travel health consultation, there is little consideration of *how* to deliver services or educate travellers. Service organisation and provision is not addressed. If the circle of 'experts' were wider than infectious disease specialists, the prevailing negative tone of often paternalistic messages to travellers might be addressed by recommending techniques of patient communication and education that are more likely to succeed (authoritarian commands such as "*do not...*" are commonplace).

A final issue with the quality of advice in these expert documents is the nature of the publications. For instance, the UK document is published by the Department of Health on behalf of all four UK countries. It is intended as a 'companion volume' to *Immunisation Against Infectious Disease* (Salisbury and Begg, 1996). The aims are: "...to provide a concise and authoritative one-stop source of information about the common health risks to travellers and how to reduce them" (p.iii) and to be a "practical handbook" (p.1). It is aimed at health professionals "...especially doctors and practice nurses giving health advice in primary care..." (p.iii). The aim of producing a "...one-stop source of information..." must be challenged however. On the same page, the need for the companion text *Immunisation Against Infectious Disease* is stated, and the paragraph following the one-stop claim refers to further sources of advice that are required, but are outside the scope of this book. There are frequent notes in the text advising referral elsewhere, e.g. in the subsection on the prevention of malaria in Chapter 6, and the drug information is of limited use without referral to the *British National Formulary* (published twice yearly by the BMA and RPSGB).

This reveals a problem for practice: the information that practitioners need to conduct pre-travel health consultations is, in the UK, fragmented and published by several different government departments. When assessing publications for inclusion in this study, only *Health Information for Overseas Travel* (DH, 2001a) met the criteria previously described in Chapter 3 *Methodology*. (The criteria were then reviewed in case they were too narrow, but were not changed because they were deemed to be robust in their validity.) Whereas *Health Information for Overseas Travel* is “...not a statement of government policy”, it is “...advisory rather than prescriptive”, and it still represents the main, official guide to pre-travel health care.

Other guidance is essential for practice, although it does not meet the research criteria for this study. Texts by Salisbury and Begg (1996); Bradley and Bannister (2003); the biannual editions of the *British National Formulary* (BMA and RPSGB, 2006); FCO (2006); and Hill (2006) all offer different specialist guidance that relates to pre-travel health care, demonstrating the fragmented nature of such guidance for health professionals. However, none met criteria of being specific to travel health, and also being the official, formal guidance from a government health department.

The quality of the four documents lies in the depth of expertise on tropical diseases – what detracts from the quality is the lack of breadth of expertise to guide practitioners in providing pre-travel health care.

4.3.3 The social context of the documents

May's (1993) claim, cited in Blaxter *et al* (2001:207) that documents “...do not simply reflect, but also construct social reality...” is a useful gauge by which to

examine the four key official sources of travel health guidance examined in this study.

The UK document, published by the DH at a time of devolution to Scotland and Wales, has the Chief Medical Officers of all four UK countries as signatories to this text. Such consensus was not always apparent in health care policy and practice, e.g. the Department of Health for England produced *Essence of Care* in 2001 (DH, 2001b), but Wales produced a very similar document, *Fundamentals of Care*, under its own auspices in 2003 (Welsh Assembly Government, 2003).

All four documents note the social context of increased global travel as a stimulus for their guidance. The Canadian document goes further, implying medico-legal issues as a driving force for their production: the guidelines were written in response to there being “...*no general travel medicine practice guidelines...available*”; and also because of “*Concerns about the quality of advice provided to Canadian travellers...*”, including practitioners who are ill-equipped, out of date, and incorrect: the consequences of which have included deaths (CATMAT, 1999:2). This stance is in keeping with western trends to challenge orthodox medicine standards, yet does not seem ready to acknowledge the role and responsibility of the traveller, or to be yet aware of the main risks to travellers’ lives abroad (pre-existing conditions, accidents), of which tropical and infectious diseases play a relatively small part. The other documents do recognise the traveller as bearing some responsibility for their own health, although the emphasis is still on their responsibility to consult a doctor prior to travelling. Other means of educating themselves to manage their own health are not well addressed in any document, nor is the concept of the patient possibly being an experienced traveller given credence. The traveller is a ‘blank slate’, requiring education on all sorts of risks in order to avoid them.

The Canadian and UK guidance pre-dated SARS and avian influenza alerts, and also the global rise in terrorist activities, the advent of which is commonly noted to be the attacks on New York and Washington on September 11th 2001. The WHO and US guidance was published later, but only the US guidance makes brief reference to such risks.

All documents give the clear impression of being written for travellers from industrialised western nations. While this is understandable – they were compiled for health professionals within such countries – there are some issues arising out of such a specific social lens.

Firstly, the original *Canadian Guidelines for the Practice of Travel Medicine* (CATMAT, 1999) was supplemented by the document, *Statement on Ethics and Travel* (CATMAT, 2003) because it is of direct relevance to the processes that occur within the pre-travel health consultation. This eight-page statement outlines in some detail how the growth of travel and tourism has impacted both positively and negatively on the well-being of host cultures and environments. Its publication occurs within a social context that is witnessing a groundswell of western awareness of ecological issues, which can be evidenced elsewhere in the literature (Pattullo and Minelli, 2006).

CATMAT (2003) states that part of the pre-travel health consultation should be the education of travellers about their impact on the host nation, providing them with an “...*ethic that will ensure preservation of the host culture and its environment...*” (p.3). This is the main recognition of global travel having a two-way impact – not only is the individual traveller’s health potentially at risk from ‘foreign’ illnesses, the

host nation can be damaged – environmentally, culturally and health-wise – by western travellers.

Secondly, although all documents make brief mention of the needs of returning travellers, this is not a prominent topic. The documents do not adequately address the concept of post-travel ill health in returning travellers, or indeed the health of migrant workers travelling *to* a western nation (Table 7). The emphasis is always on the health of the citizen leaving their home nation to travel, and yet the flip side of the coin is that any traveller coming back to – or to a country for the first time – may be hosting non-indigenous infections and health problems. A sense of an incomplete circle of health care is given out by the emphasis on pre-travel prevention without due regard to post-travel management of health and illness.

The political context of the documents is also worthy of note. The Canadian document was produced by a recognised advisory committee to the Assistant Deputy Minister, Health Protection Branch, Health Canada – so it is an authoritative document, but is received at a moderate hierarchical level in the government health department. This is in keeping with UK documentation, whereby travel health issues do not feature highly in overall health agendas. There is a divide between DH guidance, focusing on infectious risks, and FCO guidance, focusing on socio-political risks to travellers' safety. In contrast, the WHO and US documents stem from bigger departments that give an impression of a much more integrated approach to placing travel on their respective health agendas.

4.3.4 Risk awareness versus risk interventions

Table 7 shows that all the documents stress the need for an adequate risk assessment (e.g. risks associated with mode of travel, destinations, climate, planned activities, current health status), and this is widely amplified in the literature (DuPont and Steffen, 2001; Smith and Sears, 2002; Keystone *et al*, 2004; RCN, 2007). Although there follows advice about risk interventions, this is heavily weighted towards vaccination, malaria chemoprophylaxis, and topics to discuss with travellers. The actual risks to individuals are largely unquantified and undifferentiated, resulting in a potentially vast list to 'tell' travellers about (mainly phrased as 'what not to do'), which in reality would take up a very long consultation period, with no evidence that the actions are possible, retained in travellers' memories, or complied with. This is not congruent with findings discussed in the literature review chapter about the need for selective, meaningful, solution-focused risk communications (Berry, 2004; Collin and Lee, 2003), but it does provide a prompt to observe how nurses interpreted the guidance in practice during the next phase of the study. An issue of *quantity* of information over *quality* of eliciting the main risks for that individual, and delivering education to empower them to act, is the main difficulty.

4.3.5 Structures, processes and outcomes of the pre-travel health consultation

Structures: Only the Canadian document lists these in any detail. It contributed to the development of the audit tool for identifying structures available to nurses participating in this study.

Processes: These are not addressed in great detail in any of the four documents. There are no suggested models of consultation, or communication or educative techniques. Processes consist of identifying component parts of the consultation such as a risk assessment, vaccinations, and malarial advice.

Outcomes: Consideration of outcomes (or even more measurable outputs) of the consultation or service is missing from all the documents, other than broad aims to reduce or prevent risks and ill health related to travel. Outcomes are addressed only in general terms, and there is no accompanying advice on how to measure or evaluate outcomes, or the provision of any evidence to say that advice during a pre-travel health consultation works. Generally these documents state aims of identifying risks to travellers and how to reduce them, although the WHO document makes a strong assumption about the power of consultation interventions to prevent adverse health events (p.vii). Risk quantification is not addressed, other than in vague terms such as “*low*” or “*high*”. This is understandable, as the variables between different travellers and their itineraries – even between people visiting the same destination – are many. However, it probably also reflects the paucity of research on risk associated with travel health, particularly behaviours.

In summary, the documents are strong on ‘what to’ address in pre-travel health consultations, particularly relating to infectious disease, but lack mention of ‘how’ services should be delivered. The role of nurses is almost invisible. This could be attributed to travel health care being a doctor-led specialism in many countries, but is difficult to justify in the UK document because nurse-led travel health services are well established in Britain (Bryant *et al*, 2008; Carroll *et al*, 1998; Hoveyda *et al*, 2004; Nursing Times, 2003; RCN, 2007).

4.3.6 The strengths and weaknesses of documentary analysis as a research method

Method one documentary analysis made a useful contribution towards answering the research question about what *should* be within a pre-travel health consultation, largely because of the emergence of the eight categories of risk which the guidance documents advocate should be addressed. The eight categories were subsequently incorporated into the RIAS coding so that their occurrence or absence could be identified and mapped within the actual consultations. Both *assessment* of these risks by the nurse, and the *interventions* employed to reduce or remove each risk, were followed through AV recordings of consultations, and interviews with travellers. Elements of the official documents (particularly the Canadian text) were used to create the data collection tool, an audit of structures available to nurses to support pre-travel health consultations. The documentary analysis also provided an objective benchmark with which to evaluate the interventions nurses used in the AV recordings of consultations with travellers. Their actions were mapped against the 'expert opinion' and are discussed in Chapter 5, *Phase Two: What do practice nurses say and do?*

The lack of documentary information or comment on *how* to deliver services emphasised a particular need to assess how this is done in methods three (AV recordings of consultations) and six (focus group discussions with practice nurses). In a way, this omission by the experts validated the need for this research, especially the need to learn more about the degree to which information, education, advice and empowerment of travellers occurs – and whether it 'works'.

Bricolage can be complicated – the incorporation of multiple methods into a research design risks methods that are disconnected from each other, and results that are unwieldy to interpret. Documentary analysis helped to protect against this by utilising findings such as the eight risk categories throughout the rest of the research, to create a unifying and cohesive framework. Using categories for which there was a consensus of expert opinion therefore added a means of triangulation which strengthened the validity of data collection tools used and findings within other methods.

Finally, one of the most influential early pieces of reading undertaken for this study was the work of Greenhalgh and Eversley (1999) on the need to represent the views of different stakeholders when considering the meaning of quality within any service. By analysing these four guidance documents on travel health, there is a sense of having examined the views of experts, leaving the way clear to move on to learn about the views of the other main stakeholders, nurses and travellers.

4.4 Conclusions

The four official sets of guidance on pre-travel health care present a rich source of data for analysis. Method one achieved its aim of interrogating what the experts have to say on pre-travel health consultations, and contributed to the design of the other methods comprising this research. Further to achieving these aims, analysis of the documents points towards some recommendations for practice, such as the need for a new edition of UK travel health guidance which recognises the role and needs of nursing in service provision and:

- seeks to include evidence-based guidance, or at least makes clear the basis for any recommendations,
- joins up pre- and post-travel health issues, and

- links DH and FCO guidance in one standard reference source.

The next task was to investigate the views of nurses, and to find out what actually *does* happen in practice, to compare with the experts' view on what *should* happen. The findings are outlined in the next chapter, *Phase Two: What do practice nurses say and do?*

Chapter 5: Phase Two:

What do practice nurses say and do?

5.1 Introduction

The documentary analysis undertaken in method one produced synthesised views about the resources experts thought should be available to travel health practitioners, and what topics should be covered in a pre-travel consultation. The second phase of this research compares practice with expert opinion. It examines how these nurses use resources (Donabedian's *structures*) and conduct consultations (Donabedian's *processes*), and seeks to understand why they act, make decisions, and hold the attitudes that they do. The effectiveness and value of pre-travel health consultations, as perceived by nurses, is explored, and contributes to the *outcomes* component of Donabedian's framework (Donabedian, 1966, 1980, 1982, 1990, 2003).

Three methods contribute to this phase, as described in Chapter 3 *Methodology*:

1. method two comprised an audit of resources (structures) available to six nurse participants (Appendix 1)
2. method three produced AV recordings of those same nurses in consultation with 32 travellers (between four and seven travellers per nurse). See Appendix 4 for the coding framework
3. method six comprised five focus group interviews with a total of 23 nurse participants (Appendices 9 and 10).

These three methods, and particularly the AV recordings, produced abundant data and revealed many interesting strands for discussion. Following the response rates, the findings are presented in five groups: structures, processes, outcomes,

general content patterns and emerging themes. The coding framework for the dominant method - AV recordings - (Appendix 4) is used to organise the data, with findings from the audit and focus groups to illustrate where there is evidence to support or refute the main data. This 'map' shows how the rest of the chapter is organised for clarity:

5.2 Findings

5.2.1 Response rates

5.2.2 Structures

5.2.3 Processes

5.2.4 Outcomes

5.2.5 General content

5.2.6 Three emerging themes

5.3 Interpretation and discussion

5.3.1 Methods

5.3.2 Describing current practice

5.3.3 Emerging themes

5.4 Conclusions

Overall, the findings in the AV recordings were congruent with the way in which focus group nurses described current practice. These participants were able to add depth and insight to the analysis of the AV recordings, and to offer some potential explanations. Results from the AV recordings are therefore presented first, supported by examples from focus groups and audits.

5.2 Findings

5.2.1 Response rates

Twenty-four practices were invited to take part in the audit and AV recordings before the required six nurses were recruited. A lack of response from the senior partner gatekeepers was the main barrier to recruitment. Eight responses were received: two senior partners declined permission to approach their nurses and six agreed. Invitations were sent to 16 nurses within those six practices, with six agreeing to participate (a response rate of 37.5 per cent).

All six nurses completed the audit questionnaire. These participants had at least two years' general practice nursing experience, and one had over 20 years. None had specialist experience or qualifications in travel health, and all conducted pre-travel health consultations within the mix of treatment room work, chronic disease management and health promotion activities that make up a typical nursing workload. Two nurses were recruited from different branches of the same practice, providing a total of five participating practices: two inner-city, two rural, and one mixed urban practice. All six of the nurse participants completed this phase of the study. The aim of the research was to explore what actually happens in practice, and to contribute to the debate within the field of travel health about how services are delivered, and therefore sample sizes were not designed to produce generalisable results. Nevertheless, the sample characteristics could be argued to describe typical nurses who provide travel health care in general practice.

For the focus groups, invitations were sent to 35 nurses in different practices to the five recruited for methods two and three. Six nurses declined, one did not attend, five could not make any of the dates offered, and 23 participants

completed the focus group interviews: giving a response rate of 66 per cent. Table 8 shows that the characteristics of the focus group nurse participants were similar to those of the nurses who participated in the audit and AV recordings of consultations.

Table 8: Characteristics of method six (focus group) nurse participants.

Practice location		Practice size *		Years since registration as a nurse		Years in practice nursing, inc travel health	
Rural	26% (n=6)	Single-handed GP	4% (n=1)	< 2	0% (n=0)	< 2	13% (n=3)
Suburban	35% (n=8)	< 3 GPs	43% (n=10)	< 5	0% (n=0)	< 5	4% (n=1)
Urban/city	39% (n=9)	< 6 GPs	35% (n=8)	6 – 10	9% (n=2)	6 – 10	9% (n=2)
		≥ 7 GPs	17% (n=4)	11 – 15	9% (n=2)	11 – 15	43% (n=10)
				16 – 20	43% (n=10)	16 – 20	22% (n=5)
				> 21	39% (n=9)	> 21	9% (n=2)

* Percentages do not add up to 100 because of rounding.

5.2.2 Structures

Consultation length

Time emerged as the most problematic factor for nurses. Table 9 provides a breakdown of consultation times identified from the audit and AV recordings for each nurse participant. Consultations frequently did not start on time, and most participants spent longer than 20 minutes because the consultation times are those recorded, and do not always include nursing time spent on record keeping and disposal of vaccination equipment afterwards. There was awareness of this: when a traveller asked for a blood pressure check the nurse replied:

“No, I’ll be over time so we’ll have to get you to rebook for that one.”

(M3:N3:T15:260).

Sample 1 in Figure 9 (in section 5.2.5) shows the nurse attempting four times to end the consultation despite the traveller’s continuing discussion. However, time appeared not always to be used to its best advantage, spent on looking for items and information that were not to hand, slow computer systems, and lengthy episodes of imparting information.

Table 9: Consultation times

<i>Nurse</i>	Appointment time stated in method two: Audit (mins)	Actual consultation times observed in method three: AV recordings (mins:secs)	Mean actual consultation time (mins:secs)
N1	10	10:34; 14:56; 20:03	15:11
N2	30	15:35; 29:45; 31:40; 17:07	23:32
N3	20	11:13; 23:08; 22:55; 20:14; 27:22	20:58
N4	20	17:46; 04:36; 14:18; 22:43; 12:48	14:26
N5	20	16:35; 22:53; 07:20; 14:12	15:15
N6	10	12:56; 06:48; 14:09	11:18
<i>Mean</i>	18:20		16:07

Shortest consultation = 04:36 Longest consultation = 31:40

Focus group discussions about the challenges of delivering pre-travel health consultations were dominated by the lack of time participants perceived they had for their consultations. Every participant in each of the five groups alluded to it at least once. As the question of challenges was raised with a group, they chorused in unison “*TIME!*” before the facilitator had finished voicing it (M6:G2:75). The consequences were that clinics often ran late, as this participant commented:

“There isn’t much time, is there? Sometimes you overrun because you need to” (M6:G3:N4:19).

Nurses articulated feeling

“pressurised” (M6:G3:N1:10);

“punch drunk” (M6:G5:N2:438);

“...your head is going like this...” (M6:G5:N3:435),

and other expressions of stress resulting from insufficient consultation time.

When probing the focus groups for the causes of such time pressures, various reasons emerged. Sometimes demand for rapid throughput of patients was apparent from GP employers, as this quote illustrates:

“I am expected to do it in 10 minutes...such pressure from GP employers...”

(Other participants voiced their agreement: M6:G2:N4:76-78).

GPs also inferred the expectation that nurses should use a medical model of consultation, it was their job to fulfil a medical task, not an educational one:

“All they wanted me to do is actually give them the vaccinations and if they need further information, they must find it out themselves from the Internet.” (M6:G2:N4:78-80).

Pressure on the amount of time for a pre-travel appointment time came from reception and administrative sources too. Receptionists sometimes booked more than one person into a single appointment, as was observed in AV recording M3:N1:T3 and 4. Outside of the consultation itself, the lack of appointments available within the practice produced more pressure on time:

“...this constant barrage of travellers wanting appointments and we haven’t got any...” (M6:G5:N4:709).

Patient records were often not available, or key parts such as vaccination history, medications and chronic conditions had not yet been summarised on computer. In this five minute exchange the nurse is unable to locate vaccination records on the computer and asks the traveller what they recall having:

T: *"I 'spose I've had some?"*

N: *"Yeah, OK. Let me just go and check on your notes."* (Leaves room and returns with paper notes). *"Let's have a look, see what you've got now...Jam packed in here!"* (M3:N3:T13:159).

Finally, time pressures were generated by nurses' awareness of what was needed from them in order to provide a safe, high quality consultation. Focus group participants explained that nurses needed time to think and to 'switch off' from previous nursing work and 'on' to travel health, because appointments were among a range of practice nursing work and not in a dedicated clinic:

"But one of the difficulties of practice nursing is one patient I see for... there goes... another patient for smear and then the next one along the line is going for travel health and then the next one after is for diabetes. And so sometimes it's very difficult to keep focusing, re-focusing on the job in hand..." (M6:G2:N3:161).

Time was taken up by having to log on to information resources needed to manage the appointment. The following attempt to find information was unsuccessful after 4 minutes:

"I'm just going to go on to this website...I can give you the website if you want to look that up when you get home... I wanted to try and print that off, I don't usually work in this room, I don't know what the printer does." (M3:N2:T7 and 8:16).

In response to these pressures on consultation time, participants developed a range of coping mechanisms to manage the constraints. This included extending the period of time for which they worked by running late at the end of a clinic (Table 9 shows this happened to all nurses in the AV recordings, and most focus group participants identified with this), or coming in early, thereby effectively working extra, unpaid time. This nurse participant explained:

“It gives you a chance to think about the consultation before it actually happens and to know a little a bit about who you are dealing with, you know. What sort of age group they’re in, what sort of risks they’re going to run, and whereabouts they’re going, as well as looking at their previous vaccination history.” (M6:G1:N6:12).

Another coping mechanism was to impart lots of information as quickly as possible, as was seen in AV recordings (see Figure 9 in 5.2.5 for examples).

“...if you may only get a single slot to deal with it, there’s very much a case of force feeding somebody [information].” (M6:G3:N2:21).

Participants equated more time with more talk, and the need to verbalise every risk and how to take action. Some recognised that this might not work, as in this comment:

“You do see their eyes glaze over sometimes and think, I need to stop now because they’re not taking anymore in.” (M6:G1:N4:53).

Handing out leaflets was also done in compensation for feeling unable to spend further time in the consultation.

N4: *“There’s a lot of bedtime reading for you there!”*

T29: *“Mm.”* (M3:N4:T29:146).

Taking an authoritative approach occurred, with a group two nurse participant dismissing the traveller's agenda to impose her own by stating:

"... and they [travellers] go, 'what about hepatitis?' and I say, 'don't worry about them, I'm not even going to talk about those at the moment. I would rather prioritise your risks and these are...this is number one...and this is number two...and this is number three...I ain't talking about hep A or anything about that. I'm talking about yellow fever, malaria, hep B. I don't talk about anything else. So, you know, this is your priority. You've asked me for a risk assessment, this is the priority.'" (M6:G2:N2:259).

The RCN (2005) recommendation for 20-minute travel consultations was used to persuade some employers of the need for more time, as this participant explained:

"...they [RCN guidelines] really gave a lot of weight to the argument."
(M6:G2:N5:84).

In AV recordings it was clear that telephone consultations were used by three participants to ascertain whether travellers needed to attend the surgery at all, and to ration appointments to those needing vaccinations (M3: N1, N2 and N6). Focus group participants confirmed this technique:

"They're meant to have a telephone appointment with us first... and then over the phone, we discuss where they're going, what they'll do, document it, tell them they do need things, they don't need things, and then we make them an appointment." (M6:G5:N4:284).

Some practices opted out of appointment provision – and effectively out of providing a pre-travel health service – by telling travellers to contact a private travel clinic, and one practice did not undertake any assessment of risk or

provision of advice. The traveller was advised by the receptionist to telephone the Medical Advisory Service for Travellers Abroad (MASTA, 2009), to pay for a printout of required vaccines, for which the practice nurse would have a short appointment to administer them (M6:G1:N4:16). (MASTA is a commercial organisation charging the public for advice. It owns and franchises travel clinic services). This tendency to refer the travellers to alternative private services was most likely to occur when the traveller was leaving at short notice and appointments were not available.

Number of attendees

The number of attendees in a consultation elicited strong concerns for nurses. The audit used in method two indicated that although it was rare for four of the participants to have more than one person booked into a single appointment, two reported regularly having other family members booked into a single appointment slot. The AV recordings showed that 28 per cent (n = seven) of consultations were attended by more than one person. On two occasions children made numbers up to four attendees. The dynamics of a consultation changed when more than one traveller presented, with the female partner observed in the AV recordings to assume a central seat and command the main focus of the nurse (M3:N1:T3 and 4; M3:N2:T5 and 6; 7 and 8, 9 and 10; M3:N3:T19 and 20; M3:N5:T17 and 18; M3:N6:T24 and 25).

The focus group participants voiced concerns related to complexity, stress and time. A nurse who was relatively new to general practice observed:

“As a beginner it’s sort of couples and families that attend at the same time under one appointment. That is quite confusing. Because you’ve got to sort

of individualise the care for each of them in one slot. I found that quite complex.” (M6:G3:N4:55).

This was balanced by the benefit of only having to say things once, as illustrated in this comment:

“And of course, you’re actually saying the same information to all of them.... So, that’s actually – it can be easier.” (M6:G4:N2:147).

Together, the concerns expressed by nurses contribute to an emerging theme of safety, which is picked up for further discussion in 5.3.3.

Availability of records and templates

There was agreement between what the nurse participants *said* they used in the audit and what was evident in the AV recordings, except regarding two resources. All nurses had stated in the audits that patient records were often or always available to them, but there were five consultations when paper records were not available, or computer records were incomplete, and time was spent searching for information. Focus group participants echoed this finding:

“If they’re new to the practice you may not have got their notes. They could have been in the armed forces...or abroad where you wouldn’t have their records either.” (M6:G3:N1:55).

Secondly, all audit forms stated that a record of vaccinations was always given to travellers, but this was not observed to happen in the AV recordings, and one practice was out of stock for the four months over which AV data collection took place at that premises.

Only three of the six nurse participants in the audit and AV recordings used templates to structure and record their consultations. One nurse used a paper

template, and two used computerised templates. These two participants were observed in AV recordings to focus much of their attention on the screen, thus limiting eye contact with travellers. Focus group participants described the use of templates in generally favourable terms but few had access to one, as summarised by this participant:

“A bit of thought before this meeting this evening I just thought maybe there is a place for a template...you know, I suppose most of us hand on heart can say the patient has left the room and you think about him and say, ‘oh I didn’t ask him about so and so’, and we had just lost the moment, so maybe a template can be a little more directive you know, you go down a template, have I asked him this, have I checked that or this for this particular person.”
(M6:G2:N3:161).

Equipment within the work environment

Method three AV recordings revealed that all rooms in which the consultations took place had furniture arranged so that the nurse and one person consulting sat around a corner of the desk. When a second person shared the consultation, their position was relegated to a chair or examination couch outside the immediate consultation ‘zone’ and the direct view of the nurse. Children were allocated steps or the examination couch, but they quickly left these spots to explore the room. In the seven consultations where couples attended together, the woman sat in the chair nearest the desk and nurse on six occasions. On the one occasion when a man sat in the main chair, the nurse turned away from him to primarily address the woman. The role of the woman emerges as a theme discussed later in section 5.3.3. prompted by these observations from the AV recordings and exchanges such as this one between a nurse and a male traveller:

“This is what we decided you needed – your wife and I.” (M3:N6:T23:14).

In all practice premises, the six nurses were seen in the AV recordings to sometimes leave the treatment room to fetch and prepare vaccines. Later, the focus group participants cast light on this:

“There are separate rooms...[to] concentrate.” (M6:G2:N2:118)

Leaving the room was therefore not necessarily due to poor organising and siting of resources such as vaccine fridges – it was sometimes a deliberate act to obtain time alone to think clearly about the vaccines and to avoid errors – a theme on safety which is further developed later in section 5.3.3 of this chapter.

Information resources and training for nurses

Online sources such as TRAVAX (Health Protection Scotland, 2009b), Fit for Travel (Health Protection Scotland, 2009a), National Travel Health Network and Centre (NaTHNaC, 2009b), and the Green Book (Salisbury *et al*, 2006) were cited in the audit as sources used to acquire knowledge, and this was confirmed by focus group nurses. All nurses stated in the audit that they had TRAVAX made available to them by the PCT, but only three were observed or heard to use it in the AV recordings. Three others used Fit for Travel, TRAVAX’s sister site, a less detailed site designed for the travelling public rather than health professionals. However, a quarter of the focus group participants (n = 6) said there was sometimes difficulty logging onto a resource, e.g. locating changed passwords, or knowing when information had changed, particularly working out schedules for different vaccines:

“The only thing is with the Green Book; it’s fine but a lot of chapters are updated on the web. And you don’t always get notification.”

(M6:G4:N2:232).

In one AV recording a traveller had to help the nurse to log in to a site:

N: *"Umm...Travax, I wonder why it's not...I had it last week..."*

T stretches to look at computer screen: *"It's not that one at the top is it, Fit for Travel?"*

N: *"No...how annoying...it looks like we'll have to start again...it's called Travax...and I had it last week...it might be in there...no, oh no it's not that is it? () Masta...() no, it's not that...what's in there? No..."*

T: *"There it is, right up the top."*

N: *"Where? Oh Travax! Thank you! You see I shouldn't have to do this using a password every time."* N reaches for a book from shelf above desk. *"I'd saved it so that I didn't have to...it would appear that I do have to."* N finds and enters password. *"Right, just have to get this in..."* N reads from screen: *"You have entered incorrect username and password"*. N verbalises username and password. *"The password should be there anyway."*

T is looking at screen too: *"Perhaps there's no gap?"*

N enters password again: *"I wonder if...I put that in, d'you think? It's still...yep!"* N replaces book on shelf. (M3:N2:T2:47-58).

Difficulties with technology were confirmed by several focus group participants who specified problems with familiarity, navigating between and within sites, and tasks such as printing. They cited these challenges as being due to the level of their information technology skills, the quality of computer hardware in the practice, and the broadband speed at which the internet could be accessed.

Some errors and knowledge gaps were observed in the AV recordings, discussed further on as specific outcomes and under the theme of patient safety. Such errors could be due to the difficulty in accessing education and training. Focus group participants discussed these difficulties of locating, acquiring and maintaining

nursing knowledge in travel health. Staying up to date was “*Not easy*” (M6:G2:N1:212), and only one had accessed any formal academic education in travel health. There was reliance on vaccine manufacturing company updates, which also indicate a link to having to use specific vaccines to access such updates:

“Sanofi do one every year. GSK [GlaxoSmithKine], they do one. There’s one coming out based on their vaccines.” (M6:G2:N5:213);

“We use GSK and Aventis [now Sanofi Pasteur MSD Ltd] because that’s one of the perks of using two drug companies – you get two offers of information and education.” (M6:G5:N3:254).

Keeping up to date was a source of some anxiety as participants expressed awareness about the frequently changing nature of travel advice:

“...malaria borders change anyway...what was perhaps a malarial area is not now, or perhaps vice versa.” (M6:G4:N1:368).

Information resources for travellers

All nurses stated in the audit that they provided additional sources of health information to travellers. The AV recordings confirmed that 27 of the 32 travellers were provided with either leaflets or websites. The focus group nurses had little to add about the provision of information to travellers, there was an assumption that handing over leaflets or a website address was sufficient. A complaint was raised in all five focus groups that those travellers who booked through travel agents usually presented having been given inaccurate or no health information about their destinations. There was general agreement that travel agents should provide tangible, accurate health resources for travellers. Furthermore, the travel agents were perceived as playing down any potential health risks. In this next example,

travel agents are cited as giving travellers wrong information, which the nurse had to spend time and effort to dispel, as this participant comments:

“There’s a lot of misinformation particularly, you know, around travel agencies and stuff, ’cos let’s face it, they’re in the game. They’ve got to make money and with the problems around at the moment, I’ll just be interested to see what happens with regard to the advice that the travel agency is giving. Because they’ve got to, you know, sell holidays for their survival. And they do give out misinformation really, and that’s why I think it’s important within practices that travel is given a much higher profile.”
(M6:G2:N3:33).

Either too many vaccines were recommended to travellers by travel agents, as this nurse describes:

“I think that travel agents do on their itineraries make suggestions that they need travel vaccinations as well. Quite often the list that they have is completely bizarre according to what TRAVAX recommends. You know, every country needs yellow fever just about...no, it doesn’t really mean that. It means if you had yellow fever vaccinations and you go to another country, you need to take certificates.” (M6:G2:N1:63);

Or health risks are not mentioned by travel agents, a source of concern for these participants:

“And then they didn’t think they needed any vaccinations and they were going the next day. Because the travel agent doesn’t say.”

“And they don’t tell them the cost either because I’m sure people would – perhaps people wouldn’t book the holiday if they realised they’d have to pay for yellow fever or malaria on top of that.” (M6:G5:N1 and N5:29 -32).

The structural issues of time, records and templates, the clinical environment, sources of information for nurses and for travellers, all contribute towards the way in which processes unfold within each consultation, and it is these processes that are the focus of the next set of findings.

5.2.3 Processes

The AV recordings of consultations provided the core information about what nurses say and do in travel consultations, whereas the audio recordings of focus groups provided insight into how and why they conduct them as they do.

Appendix 4 explains the coding framework for the AV recordings, derived from the method one documentary analysis of what the experts specified *should* occur.

Table 10 presents the results of assessment processes participants undertook in the AV recordings. Of note, there was no assessment that comprehensively achieved the recommendations made by experts, as identified in the documentary analysis.

Table 10: Assessments made in the consultations. *Percentages do not total 100 because on one occasion a nurse assessed the trip factors by telephone prior to the consultation.

Did the nurse assess:	Yes	Partly	No
The trip*			
Mode of travel	56% (n=18)	6% (n=2)	34% (n=11)
Destination(s)	94% (n=30)	3% (n=1)	-
Date of travel	91% (n=29)	-	6% (n=2)
Duration of travel	81% (n=26)	-	16% (n=5)
Purpose/activities abroad	69% (n=22)	3% (n=1)	25% (n=8)
Accommodation type	53% (n=17)	-	44% (n=14)
Environment/climate	6% (n=2)	3% (n=1)	88% (n=28)
The traveller			
Current health status of traveller	50% (n=16)	22% (n=7)	28% (n=9)
Past history of relevance	28% (n=9)	9% (n=3)	63% (n=20)
Vaccination status	69% (n=22)	19% (n=6)	12% (n=4)
Medication	53% (n=17)	-	47% (n=15)
Allergies	34% (n=11)	41% (n=13)	25% (n=8)
Existing knowledge and attitudes	-	16% (n=5)	84% (n=27)

Assessment of the trip rarely included gaining information about accommodation and the local environment such as climatic conditions – the experts in method one recognised these as important influences upon travellers' health. Assessment of travellers' current and past health status and medication use was frequently missing. There was infrequent assessment of travellers' existing knowledge and opinions. For instance, twelve minutes into one consultation and after clinical decisions have been made the nurse asks:

“How long are you going to – I didn't even ask you that! – How long are you going to Australia and New Zealand for?” (M3:N4:T32:151).

In one exchange the traveller volunteers the information that he has cancer (which has several implications for travel as he may be immunosuppressed), but it is not picked up on by the nurse who is focused on vaccination records on the computer:

T: *“I've got um, I've got that cancer...”*

N: *“Right...”* (Nurse does not respond any further. M3:N5:T17:130).

Assessment processes were explored with focus group participants, who cited a lack of time as the main factor as to why an assessment may not be complete, but also revealed difficulties within the consultation that were specific to assessing and advising travellers. Two stereotypes emerged from assessment processes: the complicated traveller and the ignorant traveller.

Complicated travellers were those for whom their age, health status, destination, mode of travel, uncertain itinerary and intended activities made it difficult for the nurse to assess or advise them. They included:

- people travelling 'last minute'
- babies and children
- young people, especially gap year students with no money, and an uncertain itinerary

- long-term travellers
- older people and those with pre-existing conditions
- pregnant women
- cruise passengers visiting multiple destinations, especially different malarial areas, and others crossing international time zones
- those participating in risky activities, e.g. sex, medical procedures
- those going to destinations requiring vaccines that the nurse perceived as high risk, e.g. yellow fever and Japanese encephalitis vaccine
- those visiting friends and relations, especially in Africa and the Indian sub-continent.

The 'ignorant' traveller was described with different degrees of tolerance. Some participants were benevolently paternalistic, assuming the traveller to be a 'blank slate', needing to be filled with knowledge; others, like these participants, sounded irritated:

"There's an element of naivety I suppose." (M6:G3:N4:11).

"It's quite difficult to persuade them sometimes" [of the need for vaccines, malaria chemoprophylaxis and behaviour modifications abroad] (M6:G3:N2:102).

"Some of them are just going to country A and have not a clue exactly where in country A they're going." (M6:G1:N1:49).

"They haven't a clue." (M6:G1:N4:51).

"You know, they're not really thinking of the consequences, really." (M6:G4:N2:293).

5.2.4 Outcomes

Donabedian's (2003) original framework intended that 'outcomes' should mean actual health gains or losses as a result of health interventions. In a single-handed PhD study on travel health, these are unlikely to be reliably established because of the need for epidemiological work on a much larger scale. However, there were observable and recordable consequences of the consultations which were the decisions and interventions made by participants. They included vaccinations; decision-making on the necessity and type of malaria chemoprophylaxis; referral to other services; advice, information-giving, and education. Table 11 shows the interventions nurses made in the AV recordings of consultations. They show weak congruence with the expert advice, as identified in the documentary analysis of method one.

Table 11: Counselling and interventions made in the consultations.

Did the nurse advise, or offer an intervention in accordance with official recommendations, on:	Yes	Partly	No	N/A
Mode of travel	44% (n = 14)	9% (n = 3)	47% (n = 15)	-
Environment/climate	25% (n = 8)	3% (n = 1)	72% (n = 23)	-
Personal safety	-	3% (n = 1)	97% (n = 31)	-
Non-vaccine preventable infections	28% (n = 9)	44% (n = 14)	28% (n = 9)	-
Vaccine-preventable infections	50% (n = 16)	50% (n = 16)	-	-
Malaria prevention	12% (n = 4)	41% (n = 13)	-	47% (n = 15)
Exposure to blood/body fluids and sex	25% (n = 8)	15% (n = 5)	60% (n = 19)	-
Managing ill health abroad	3% (n = 1)	63% (n = 20)	34% (n = 11)	-
Other sources of information and intervention:				
Given to the traveller?	84% (n = 27)	-	16% (n = 5)	-
Referral or advice sought from specialist source?	-	-	-	100% (n = 32)
Follow-up within the practice?	38% (n = 12)	-	-	62% (n = 20)
Other (all were referrals to yellow fever centres)	16% (n = 5)	-	-	84% (n = 27)

The advice given to travellers about their environment and climate was based on assumptions the nurses made about the destination, because Table 10 shows that they had not asked for that information from the traveller. Personal safety and exposure to risks from blood and body fluids were sometimes raised but rarely fully discussed, as in this example:

“It’s when you’re going to come into contact with blood, and things like that.”

N looks at T and scratches her head, T’s eyes remain looking down at the paper on the desk. *“Right, so um...you’re only going for three weeks but if you’re doing more risky stuff...”* N is wagging a forefinger at T who nods, avoiding eye contact: *“Hepatitis B and rabies are ones to consider.”*

(M3:N1:T11:62).

Advice and interventions on malaria chemoprophylaxis and vaccines was not always in close agreement with expert views. It was omitted or partial, recommended unnecessarily on one occasion, and one nurse upheld travellers’ views that Guinness beer, Marmite extract, and other dietary measures afforded protection against malaria.

When exploring these findings with focus group participants, two further stereotypes emerged: the non-compliant traveller, and the indecisive traveller. Non-compliance with recommendations and advice was a problem and a source of frustration for participants in all the focus groups. A typical example was this comment one nurse in focus group three made about malaria tablets:

“I mean they will come and say, ‘Oh I’ve got some left over from last year.’ And I think to myself – how come? Because I gave you the correct number for the length of stay plus that add-on, the other side, so how come there are some left over? Why? That suggests to me that you haven’t actually taken the wretched things!” (M6:G3:N1:92).

In focus group two some discussion ensued about it possibly being easier to comply with advice about something tangible and specific such as the purchase of a particular insect repellent or first aid kit, whereas their behavioural advice to

travellers (e.g. on road and water safety and safe sex) was seen as something “...more vague” and therefore less likely to be effective. (M6:G2:N5:37).

The second stereotypical view that was commonly expressed involved the traveller who was perceived as leaving the decision-making up to the nurse. One participant in focus group four explained:

“They’ll often say, ‘Well what would you do?’ And I say, ‘Actually, it’s your decision. These are the options. These are the risks.’” (M6:G4:N1:74).

AV recordings showed that nurses had to explain costs of vaccines to travellers during the consultation, and there were examples of when clinical decision-making – and the vaccination outcome - was based on cost. In this consultation the nurse has listed the recommended vaccines and their prices. The traveller replies:

“Right. Ok, yeah, I’ll talk it over with my parents and see...if they’re willing to shell out, OK?” (M3:N1:T11:277).

Sometimes nurses framed the need for vaccines and anti-malarial tablets in terms of how expensive they were:

N: *“If I just write down um, all the prophylaxis for all the different countries and see if we can find one that you can take for all of them.”*

T: *“Ah-ha?”*

N: *“That’s going to cost you a fortune.”*

T: *“What’s this for?”*

N: *“Oh, er – the treatment you have, just to prevent malaria.”*

(M3:N4:T31:96-100).

Focus group participants also dwelled on the difficulties of raising costs with travellers. A participant in group two raised the issue of pricing anomalies over hepatitis A vaccine (free to travellers) and hepatitis B vaccine (for which a charge may be levied). She chose to use a combined brand, which meant only one injection instead of two that day, and no charge to the patient because of the hepatitis A component, irrespective of whether there was time to complete the schedule to provide optimum protection. Another participant in that group, strongly in favour of charging patients for travel services, commented (without support from other participants):

“Well we don’t combine hep A and hep B...I’m really sorry, you know. And I say, ‘I’m sorry you know, if you’re travelling, you are doing that, and then you will pay for hep B’. So I don’t combine hep A and hep B, so...they don’t get it free.” (M6:G2:N2:180).

Whereas concerns about charging for hepatitis B vaccination were expressed within all of the focus groups, there was no apparent realisation that the *clinical* basis for choosing separate or combined vaccines should underpin their recommendations to travellers (Salisbury *et al*, 2006).

The focus group participants discussed the value of pre-travel health consultations as one of their topics. The ‘value’ findings fell into three categories: Firstly, the purpose of the consultation was discussed. Participants located travel health firmly as a health-promoting part of their workload:

“...you obviously do preventive things for them.” (M6:G1:N2:9)

‘Preventive things’ were cited as either education, particularly awareness of how to avoid infections, or medical interventions such as vaccines and malaria prophylaxis. Purposes were discussed in terms of what the nurse had to *do*, the actions, processes and tasks of the nurse, and not those of the traveller.

Secondly, the benefits and positive aspects of the consultation were articulated either in terms of benefits for the traveller, or for the practice nurse. For the traveller, it was described as a “*positive*” reason for attending the surgery (M6:G1:N1:8; M6:G2:N3:10; M6:G3:N4:174):

“People like to come in...because they are going somewhere nice.”

(M6:G1:N2:9)

They were assumed to gain knowledge, particularly about infectious diseases, and were:

“...very grateful for the ones [vaccines] they do get free” (M6:G1:N1:25).

It was expressed that travellers received a better service than they expected:

“I’ve had patients who were quite pleasantly surprised by the end of a consultation. They’ll be coming and thinking, ‘Oh, I’m just gonna get a quick jab’, and you’ve got a lot more information to give them than they expect.”;

“On the whole they go away feeling that they’ve achieved a lot more than they really set out or even thought about.” (M6:G2:N4:11).

For the practice nurse, participants from all five focus groups described the benefits, including enjoyment. Pre-travel health consultations were described as:

“...fun to do...” (M6:G1:N2:9).

Variety:

“...so it’s always different.” (M6:G2:N3:86).

Interest:

“You know...I just like it because I find that I travel with them. And it’s really interesting. It’s their journey I know, but I actually quite like, you know, like on some days one of the GPs said, ‘What’ve you done today?’ I said, ‘I’ve gone to Brazil’, and you know, and it’s actually quite interesting. And that’s

what keeps the interest going. I think. It keeps you motivated to keep giving out information.” (M6:G2:N2:24).

Knowledge acquisition:

“Cos your knowledge is growing.” (M6:G2:N1:25).

“But you do learn about what people tell you, if they’ve been somewhere.

People do tell you lots and lots of interesting things.” (M6:G2:N2:26).

Job satisfaction:

“To get to – yeah, to get to know them, I suppose, and have their trust that you know – know what you’re talking about and you’ve given them good information.” (M6:G4:N1:23).

Thirdly, the evidence for and against pre-travel health consultations achieving effective health outcomes was discussed. Only six of the 23 participants were able to think of specific examples when they were sure their advice to travellers had been acted upon. One cited the case of a family changing their minds about taking a young baby to Africa as a result of learning about the risks of malaria and yellow fever; one described a traveller reversing his initial decision not to have rabies vaccinations after discussion with that nurse; two knew of travellers who had sought the advised post-exposure rabies vaccines after being bitten abroad; one traveller contacted their insurance provider to extend their cover after information about the need for insurance to pay for medical repatriation; and one bought and used specific insect repellents recommended by that nurse.

Otherwise, most participants found it hard to answer the question about the effectiveness of pre-travel health consultations, which appeared to be a new consideration for many. Some seemed uncomfortable with this realisation:

“I can't think of really specific patients but I mean...I do feel what you say does make a difference...” (M6:G1:N1:34);

Or expressed doubt:

“So, you know...are we doing as well as we think we are...or not?”

(M6:G2:N3:35).

5.2.5 General content

Two analytical approaches were used to identify general content issues, RIAS and qualitative open coding of transcripts.

The RIAS tool was used to code all verbal utterances in the AV consultation recordings, making it possible to assign them to five main phases of the consultation:

1. Opening/closure
2. Assessment
3. Interventions
4. Counselling/advice/information-giving
5. Other (e.g. interruptions or social talk).

When RIAS was first explored as a potential analytical tool for this study, it appeared that a 'barcode'-style illustration of the phases of the consultation could be extracted from the coded utterances to depict the phases of the consultation visually. However, the technique was not available from the RIAS team at the time of this study, and therefore an alternative method inspired by the RIAS idea was developed (Willcox *et al*, 2009a)

The phases of the consultation were clearly identifiable in the consultation transcripts. By standardising the format of the electronic transcripts, the phases could be quantified by the amount of talk in each, and depicted using a Microsoft

Excel program. This showed the amount of talk in each phase, and the sequential flow from one phase to the next. The findings show that pre-travel health consultations were fragmented, moving from one phase to another quite rapidly and back again. This is illustrated in Figure 9, which shows an 'ideal' consultation, with clearly defined singular episodes for each phase (much of the literature on consultations infers that they progress in just such a linear, uni-directional manner (e.g. Neighbour, 1987; de Lusignan *et al*, 2003; Pearce, 2003; and Moulton, 2007). Four actual consultations (samples one to four) are then shown, taken from the AV recordings.

The barcoding depiction of the phases of the consultation shown in Figure 9 shows that the consultations do not follow a neat pathway of assessing the traveller's needs before undertaking to either counsel them (the provision of information, advice or education), or to make interventions related to medicines (the administration of vaccines or malaria chemoprophylaxis). An important finding was therefore that outcomes (clinical decision-making) of the consultation were frequently based on incomplete assessment processes. The implications of this fragmented approach are discussed in Chapter 7, *Towards a new model*.

AV recordings: RIAS coding of content

The RIAS tool measured different categories and the relative 'share' of speech between participants within the AV recordings of consultations. Participants performed similarly, with nurses talking almost twice as much as travellers. However, it is important to clarify that RIAS measures each 'utterance', which is the smallest distinct portion of speech or paraverbal sound, and reliance on only quantitative RIAS results could be distorting. For instance, if one person is making 'mm' sounds, stuttering or trying to interject, the utterances may appear to be a substantial share of speech when they actually have not been able to make a coherent contribution. Therefore, qualitative analysis was required to check and validate what was happening.

Procedural talk about vaccines accounted for eight per cent of nurse talk.

Questions by nurses took up six per cent of the consultation, of which 1.5 per cent were open questions, and 4.5 per cent were closed questions about fitness for vaccination, or previous vaccines received.

The concept of asking open questions was raised with all the focus group participants: it was unfamiliar to many, and drew both favourable and unfavourable views. No participant mentioned actually using this technique in travel consultations. In discussion, three participants made favourable comments that open questions were more likely to give nurses the travellers' perceptions of risk, which could then be affirmed or corrected. They acknowledged here that travellers *were* likely to possess pre-existing knowledge and were not a blank slate; that it was important to understand their agenda, and that the likelihood of not missing something important increased with the use of open questions. In contrast, anxiety was expressed by participants in three of the focus groups about the length of time

such questions might take, and opposition to open questions was because participants perceived the traveller did not want information or to make decisions (an example of the stereotypical indecisive traveller). There was also an expectation of glib or sarcastic replies to the question: “What do you think are the main risks to your health from this trip?” such as:

“You’re the nurse, you tell me!” M6: Group 5:N3:595) and *“That’s why I’m here!”* M6: Group 5:N4:594)

AV recordings: Open coding of content

Rapport building was generally very good, and a few travellers had met the nurse previously. Even in new encounters, indicators such as mutual smiling and positive comments about the holiday occurred early in the consultations.

In speaking, nurses developed a ‘patter’, a certain way of phrasing comments used repeatedly with travellers. One nurse said:

“Rabies – it’ll kill you”

to all travellers (M3:N2:T2:78; T5 and 6:126; T7 and 8:27; T 9 and 10:73) .

Jargon was occasionally employed too, e.g.

“...imms and vaccs” (M3:N3:T20:352).

Nurses’ speech dominated the consultations; travellers were mainly passive and unchallenging or unquestioning.

In listening, nurses often missed important cues given by travellers. A child showed growing agitation, then misbehaviour, then quiet but audible repetition:

“I don’t want a needle, I don’t want a needle, I don’t want a needle”,

while the nurse remained focused on talking to the participating parent – who was distracted by the child’s needs (M3:N2:T5 and 6:251-263). One traveller’s comment:

“...I’m really worried... about things like malaria”

was ignored by the nurse until that part of the computer template addressing malaria was reached (M3:N4:T21:4).

Computer use presented a dichotomy within the consultations, with either marked positive or negative effects on communication. For instance, one nurse was very focused upon the computer screen, made little eye contact and reeled off many abrupt, closed questions (M3:N3). Travellers mirrored that behaviour in their responses. In contrast, another nurse often turned the computer screen to share a travel website with travellers (M3:N6).

Interruptions to the consultation were common, including phone calls from GPs and health care assistants (HCAs) walking in without knocking and waiting for a response (M3:N1:T1:19; M3:N3:T14:267; M3:N4:T29:209).

An overview of the individual findings produced an impression of three emerging themes, which were strengthened by the collective consideration of findings relating to travellers, reported later in Chapter 6. Section 5.2.6 now introduces those themes.

5.2.6 Three emerging themes

Theme one: The role of the woman as health seeker

It was in the AV recordings that the role of women as primary seekers of health information first emerged. It is later confirmed and developed through analysis of

travellers' diaries and telephone interviews, where women are also shown to be guardians or managers of family health issues. The analysis of structures showed that when a couple attended together, the woman took the chair nearest to the desk and the nurse on six of the seven occasions. At first this appeared to be due to the woman entering the room first, a courtesy shown by her partner stepping back to hold the door. However, the recordings went on to reveal how the nurse focused mostly on the woman when giving advice, even on the single occasion when the man took the main chair. Leaflets and record books were handed over to the woman, not the male partner. Furthermore, women and nurses were complicit in working out what vaccines other members of the family should receive. Two women attended alone to plan their children's and partner's schedules. On one occasion the nurse made the absent male partner's computerised records screen visible to the woman as they discussed what he might need. Another nurse greeted a male traveller who attended alone with the words:

"This is what we decided you need...your wife and I." (M3:N6:T23, line 14).

The gender perspective within pre-travel health consultations was not anticipated prior to data collection (and did not feature in the literature), but provided another justification for using grounded theory and open coding to help describe current practice.

Theme two: the division of labour

Not all assessment occurred within the actual consultation, or indeed was made by the nurse conducting the consultation. Both the AV recordings and the focus group discussions concurred: some practices organised service delivery so that several people played some part in assessing, advising or prescribing for the

traveller. The nurse actually conducting the consultation did not do so autonomously. A sequence of events frequently occurred whereby the traveller called the practice for an appointment, the receptionist asked for destinations (and in one practice, advised the traveller of a website to view prior to their appointment), and relayed the information to a nurse who then checked the vaccination status of the traveller and telephoned them to advise whether an appointment for vaccinations was necessary or not. If so, it was sometimes a different nurse who actually saw the patient. This approach to service delivery, and the issues of safety, effectiveness and efficiency the division of labour raises, has implications for the theme of safety within the consultation. Some examples of the division of labour noted in the AV recordings were:

Receptionists: In two practices receptionists were told not to book an appointment when the traveller called to request one, but to take details of the date of travel and destination, and to advise the traveller that the nurse would call them back to see if an appointment was needed.

In all practices the receptionist booking an appointment was instructed to take details of destination, and sometimes the date of travel, which were then entered in the computer records on which the nurse relied.

In one practice the receptionists were trained to advise the traveller to check risks on the Fit for Travel website prior to their appointment with the nurse. The nurse then relied mainly on the traveller's identification of vaccine and malarial needs to conduct the consultation with minimal assessment or advice. In another practice receptionists were responsible for selling travel health goods to the traveller, including insect repellent, mosquito nets and sun barrier cream. In all practices it

was the job of receptionists to advise (if they remembered) travellers of costs of vaccines, but this sometimes happened after the event.

The implications of receptionist roles are variable, and it was not possible to ascertain in this study just what awareness training they had. The practice of trying to book a phone call rather than an appointment appeared designed to save unnecessary appointments, but as travellers invariably required vaccination and malaria advice, it resulted in more time being spent, with inconvenience to the traveller. Errors occurred at some point in the transmission of information about destinations between the travellers, receptionists, records and nurses – for instance, one receptionist recorded a destination as the Dominican Republic, which the nurse took at face value and advised the need for malaria chemoprophylaxis. The traveller actually visited Dominica, an island for which there was no risk of malaria, resulting in unnecessary treatment and expense. The potential for misunderstandings existed in the other aspects too, it being uncertain whether receptionists were sufficiently able to advise travellers about the safe and appropriate use of insect repellents containing different strengths of N-diethyl-meta-toluamide (DEET).

Other nurses: Nurses carried out an assessment in person or by phone, which another nurse then acted upon to give vaccines, advice and malaria chemoprophylaxis. Providing records are comprehensive, this fragmentation of the consultation is sometimes necessary, particularly if the traveller needs completion of their vaccination schedule on certain dates. Potential problems centred around the second nurse failing to check the accuracy and currency of the original assessment; and on conflicting advice between nurses, an issue that focus group participants agreed undermined credibility and consistency.

General practitioners: None of the nurse participants were independent prescribers and they therefore had to ask GPs to issue private prescriptions for malaria chemoprophylaxis that were not available 'over the counter' from a pharmacist. This was done either by leaving messages for the GP, or writing the prescription for the GP to sign, which the traveller then had to return to collect, pay a private fee for, and take to a dispensing pharmacy. The issue is that the GP signing the prescription carries the legal accountability for it, and yet the decision-making on the type and suitability of chemoprophylaxis was done by the nurse based on an often inadequate assessment, as discussed previously. The signing doctor was therefore exposed to a medico-legal risk should the traveller experience adverse effects which could have been anticipated and avoided if the assessment had been done appropriately. A loophole emerged in some consultations where no-one actually assessed whether a traveller and a particular drug or vaccine were safely compatible, each assuming that another person involved in their care had done so.

Theme three: patient and practitioner safety, quality, and the prevention of errors

The issue of 'safety' emerged as a unifying theme throughout the audit, AV recordings of consultations and focus group discussions. Although the main findings were related to patient safety, particularly around vaccine administration, broader issues such as the medico-legal safety of the nurse also emerged. These two dimensions of safety and quality are under-researched in the travel medicine and health literature: error-prone practice, and as a counter-balance, safety-promoting practice, are explored here.

Error-prone practice included factors with the potential to impact negatively on travellers' health. In descending order of frequency they were observed in AV recordings as:

1. incomplete assessment of the traveller and their trip, as illustrated in Table 10 and Figure 9. Focus group participants alluded to the lack of time, templates and training in travel health and consultation skills as contributing to this factor.
2. Over-treating. For instance, one traveller was recommended yellow fever vaccination for his trip to India, which is not a yellow fever-endemic region (M3:N4:T29:65).
3. Giving incomplete advice, as shown in Table 11. The management of episodes of ill health abroad, and avoiding exposure to body fluids and blood-borne infections was particularly neglected.
4. Giving wrong advice. One traveller was advised about health risks in the Dominican Republic, whereas they were actually visiting Dominica (M3:N3:T13:122).
5. Under-treating. A couple had their mistaken beliefs in the anti-malarial properties of folk remedies upheld by the nurse (M3:N1:T3 and 4:191).
There was also little use of more unusual vaccines such as those protecting against Japanese encephalitis or rabies, being given consideration alongside more commonplace vaccines, even when a traveller's destination, duration of stay and activities indicated a possible risk.

Some practice had the potential to affect the medico-legal integrity or 'safety' of the practitioner and other colleagues. Examples include:

1. breaches of confidentiality and privacy. AV recordings revealed several potential breaches of confidentiality by three participants when computer

screens with personal data of one partner were displayed when both partners attended together. This was issue was raised in focus group three: *“And you know, it happens quite a lot and obviously the patient’s confidentiality issue and you know, I’ve got to look at the wife’s screen but the husband is here, and you know, you assume I suppose, you would hope that the husband knows everything about the wife, but they may not and that can be really difficult and equally difficult for teenage girls who are in with their parents. And obviously before giving any vaccination I want to be very sure that the girl is not pregnant! And I just have to ask the parents to leave the room and just say, excuse us a moment please, I would prefer it just to have...I’m not going to do anything to her. I just want to ask a few questions. They must know what it’s about! But then, you know, you’re going to be in a very tricky position if she says, well I think I might be pregnant.”* (M6:G3:N4:57).

Interruptions to the consultation occurred on six occasions, which the nurse participant responded to. This tended to break the flow of concentration, taking attention away from the traveller, but also represented potential breaches of privacy. On one occasion the nurse answered a telephone call from a doctor to discuss an aspect of another patient’s treatment. Other interruptions were nurses and HCAs walking into the treatment room without knocking, or waiting for permission after knocking.

2. Consent. Superficially, consent was gained – nurses in the AV recordings typically asked if the traveller was ‘happy to have it’ at the point of vaccination, or it was implicitly gained by the traveller rolling up a sleeve as the nurse prepared the vaccine (M3:N6:T30, line 111). However, even

explicit requests to vaccinate were not always preceded by sufficient information for the traveller to make an *informed* decision, as stated by Salisbury *et al* (2006).

3. Division of labour (as discussed previously).
4. Lack of legal remit. The audit elicited the legal structure under which participants supplied and administered travel vaccines, and three nurses had authority to do so through PGDs (in use at the time of data collection). However, three appeared to be administering vaccines without any legal authority to do so. This constitutes a criminal offence and leaves the nurse – and their GP employers – legally vulnerable. It also created an ethical issue for the researcher, which was overcome by providing information on the legal supply and administration of medicines by nurses in the educational pack given as a gift to participants for taking part in the research. The AV recordings did not show a nurse referring to a PGD, even when they were unsure of the vaccine, its indication or schedule, yet focus group discussions included concerns about the disciplinary consequences for themselves if a mistake was made:

“I mean, we are the ones that make the mistake.” (M6:G4:N1:423);

“Nothing is worse than thinking – now, was that in the left...or right arm...?”
(M6:G3:N2:134);

“I’m terrified of travel vaccines...of getting it wrong.” (M6:G2:N5:148).

In contrast, safety-promoting practices included:

1. Awareness of the changing dynamics of a consultation with more than one traveller attending. Nurses developed techniques to protect their concentration on vaccine preparation to avoid errors, such as providing

travellers with leaflets to read, or removing themselves to another area to check and draw up the vaccines;

2. Where children were disrupting the concentration of and discussion with parents, nurses negotiated one parent to child-mind outside and one to receive the travel advice. Children were brought in one at a time for vaccination;
3. Judicious use of time, including asserting the need for adequate consultation time, spending time prior to the consultation checking records and destination requirements.

In summary, the data produced some quantitative, but largely qualitative findings related mainly to the assessment processes, phases of the consultation and communication, but also to the structures and outcomes that are associated with pre-travel health consultations conducted by nurses. It was also possible to identify three thematic strands emerging from the data – the role of the woman as primary health seeker; the division of labour within the consultation; and patient safety, quality of service, and the prevention of errors.

5.3 Interpretation and discussion

5.3.1 Methods

The audit used a simple scoping tool that enabled examination of the use of tangible resources and their effects on the consultation in AV recordings of consultations. The findings were used to inform focus group discussions. Although these audit findings from such a small sample are not generalisable to all practices, they offer the potential for other practitioners to consider the issues raised and decide on the transferability of the findings to their practice. The audit acted as a form of triangulation with the other methods, helping to strengthen the

validity of findings. It has answered part of the first research question about the structures associated with pre-travel health consultations. The audit was a small element of this research study, but it contributed to a comprehensive picture of present travel health care, an attribute recognised throughout Donabedian's span of works on the quality of health care (1966, 1980, 1982, 1990, 2003).

In contrast, the AV recordings of consultations between nurses and travellers were a major part of the research design. Having considered the advantages and drawbacks of this and other methods (as detailed in Chapter 3, *Methodology*), AV recordings captured the required data as intended. The data collection and analysis stages included scrutiny of whether validity was affected. Internal validity appeared robust: both nurses and travellers seemed to disregard the presence of the camera quickly, which was small, discreetly situated and silent. There were very few glances towards it, other than from children accompanying their parents in the consultation. One female traveller forgot about the camera while undressing for her vaccination:

T: *"So where in the leg has it gotta go, in the thigh?"*

N: *"Yeah...I'll pull the curtain round because the camera doesn't need to see that!"*

T: *"Good job you said – I'd forgot about the camera actually!"* Both laugh.

N: Pulling curtain: *"You don't want to flash all your bits!"*(M3:N3:T15:285).

Six other participants also mentioned forgetting about the presence of the camera. Nevertheless, it is probable that external validity was affected by this choice of method – for instance, those agreeing to participate may have been a minority who were not intimidated by having their practice scrutinised (10 nurses declined to participate). Three nurses mentioned their practice often used AV recordings in

teaching, training and clinical supervision activities, and so it is possible that previous familiarity with the method led them to agree to participate. Perhaps those practices with a strong educational ethos were more likely to agree to external research requests. Despite this, and the use of non-probability purposive sampling, the nurse participants represented a geographical spread across a county, and a balanced variety of different types of practice, from rural to inner city.

One nurse said she had agreed to participate because she had become aware that unlike hospital ward work:

“no-one knows what your practice is like when you close that treatment room door” (M3:N3).

She thought it was an issue of accountability, and that practice should be visible, transparent and explicit, and regretted that she never had any colleagues sit in on her consultations, or was able to do so in theirs. ‘Invisibility’ could therefore be part of the travel health ‘problem’: what *should* happen in practice is idealised in the literature and the official guidance analysed in method one, but the *reality* is not adequately described. This nurse saw her participation in the research as a necessary way to explain and make explicit the practice of travel health.

One caution about the ‘complete’ recording Coleman (2000) claims is possible, is that most of the recordings in this study do not capture the full opening phase of the consultation. This was because the nurses all fetched the travellers from the practice waiting room, and introductions and greetings usually happened as they walked down corridors to the treatment room.

Analysing the data proved challenging for various reasons. Firstly, it was correctly anticipated that this method would generate large amounts of data. The total of 25

consultations lasted almost seven hours. This was time-consuming, but had been planned for, and the process of familiarisation with the data proved very worthwhile. Secondly, the RIAS analysis proved difficult because of the number of software programs involved in extracting the data ready for interpretation, the need to become familiar with those programs, and to ensure data were not corrupted because of the transfiguring of programs. Expertise from within the University, and correspondence with the RIAS team at Johns Hopkins University, Baltimore, was needed to facilitate this, and a resulting observation is that if the RIAS data analysis processes were refined and streamlined, their wider use by researchers would add a valuable tool to understanding health interactions.

Thirdly, it was recognised from the start of the study that RIAS should not be the only means of analysing the data. It provides a 'skeleton' framework of phases and interactions within a consultation which allows an objective overview, and comparisons between different types of consultation, practitioners and patients. RIAS generates useful quantitative data, but interpretation is required to put flesh on these bones, and qualitative analysis of the raw data *and* that generated by RIAS, offered the most thorough insights into the pre-travel health consultation. An example of this need to analyse the data both with RIAS and qualitatively, related to the topics addressed by nurses in the consultation. Documentary analysis of official guidance on travel health identified these, e.g. vaccine administration. RIAS *quantified* the parts of the consultation relating to these, but whether the advice and information the nurse gave was *correct* or not, could only be ascertained by the researcher matching what was said with guidance current at that time.

There was a good response rate to participate in the focus groups for method six. Parahoo (1997) warns that volunteer participants may produce bias that a more purposive sampling technique could avoid, but the actual practice nurse participants did represent rural, suburban and inner city practices. Their homogeneity – an important factor in reducing bias in focus groups if some individuals felt unequal to or dominated by others – was achieved through their shared experience of travel health provision within their practice nursing roles (Parahoo, 1997; Sim and Wright, 2000).

The interactions between participants sparked new ideas, and permitted an evaluation of consensus, dissension, and strength of feelings about topics, both within and between the groups. It was this feature of group dynamics that confirmed focus groups as the best method to complete the study, and other options for achieving views and consensus, such as the Delphi method, were rejected for this reason (Sim and Wright, 2000; Bowling, 2002). The researcher, as moderator, was alert to overly dominant or non-participating members, but all individuals made significant contributions to the topics being discussed.

This could be due to the size of the groups, which were small according to some researchers. Stewart and Shamdasani (1990) suggest between eight and 20 participants; Bowling (2002) cites six to 12 as being typical of focus groups. The advantage of these smaller groups was equal participation, an opportunity to cover all topics without repetition and in some depth, and easier voice recognition during transcription, all within the one and a half hours that Stewart and Shamdasani (1990) state as a minimum length for focus groups. Other researchers are more flexible in adapting logistics to meet the need for data and the size of the study, and there is little agreement on the number of overall groups required (May, 1997).

Although no 'perfect' method or research design exists, the bricolage of methods used to analyse the pre-travel health consultation has offered adaptability and triangulation, yielding a great quantity of meaningful data on the social phenomenon of the nurse-led pre-travel health consultation.

5.3.2 Describing current practice

In searching for a dominant model employed by the nurses in the recorded consultations, it was difficult to identify a single one. Even the nursing process of assessment, planning, implementation and evaluation of care was not adhered to in any systematic way, as the examples in Figure 9 barcodes illustrate. Rather, the nurses seemed to unconsciously be 'patchworking' their approach from prior experience (this appeared to be either intuitive or informally learnt). The rapid series of closed questions used in the assessment phases were reminiscent of a traditional sick-patient model, when a practitioner seeks information from the patient. The counselling phases consisted of authoritative instructions of what to do or not do, again reminiscent of an older medical model widely described in the literature on communications (Silverman *et al*, 2005; Roter and Hall, 2006) and consultations (Pendleton *et al*, 2003). On two occasions nurses engaged in long health educational discussions on topics that they had a special interest or training in – asthma and contraceptive advice, skewing the balance of content within the consultation to topics they had most knowledge of.

Two styles of consultation emerged, exhibiting the following characteristics. Style one was:

- a time-consuming consultation
- the nurse does most of the talking, with long verbal expositions
- the nurse attempts to cover everything – vaccines, insurance, sun, food and

water hygiene, sex, insect bites, and more.

Style two was:

- a shorter consultation
- the nurse is in charge. – talk is brief but authoritative, directing, and with mainly closed questions
- vaccines, malaria and infections are prioritised
- there was not much time for anything else – if there is other advice, it was very brief or in a leaflet.

Style one was labelled as the 'kitchen sink' consultation, a colloquial phrase meaning inclusive of almost everything, and style two became the 'M and M' consultation, standing for medical and minimal. Of the six nurse participants observed in the AV recordings, two leaned most towards the kitchen sink model (N2 and N5); two were more M and M oriented (N1 and N6); two were somewhere in between, using the kitchen sink model if time was plentiful, switching to the M and M model if they were running late (N3 and N4).

Focus group participants described pre-travel health consultations, for which there is increasing demand, as a part of the practice nursing workload. There is little GP involvement because it is almost entirely delegated to nurses. Travel health is an interesting and enjoyable activity that also presents anxiety-provoking challenges. There is objective evidence of this growth in demand for pre-travel health care: since Carroll *et al* (1998) identified 98 per cent of practice nurses undertook travel health on behalf of their employers, the number of UK citizens travelling abroad has risen from 53.9 million in 1999 (ONS, 2000) to over 69.5 million in 2007 (ONS, 2009a). British general practice is unusual in this respect, as in many

countries travel health is physician-led and privately provided (Hill and Behrens, 1996).

That participants found travel health enjoyable and interesting may be a sampling bias as it is possible that only those with such positive perceptions were motivated to respond to the research invitations. This is assuaged to some degree by the participation of two nurses for whom travel health consultations were a new area of work, and by some participants acknowledging that the difficulties and anxieties could outweigh the enjoyment. The following exchange demonstrates these two stances:

“It just fascinates me!”

“I want to feel like that...I want to feel that!” (M6:G3:N2 and 1:537-9).

The feelings and perceptions that nurses have about travel health are not addressed in the literature. Although many complexities are highlighted and advised upon (e.g. how to assess risk; how to manage travellers with pre-existing conditions), the literature does not display any wealth of discussion about clinician attitudes to their work, or to their patients.

Part of the problem – and the potential solutions – lay with the processes that are operant within general practice and the pre-travel health consultation. Participants had not been taught about consultation models and management, and although they clearly possessed many skills, they lacked the type of training that other health professionals receive, e.g. doctors recently trained in UK general practice. When shown the kitchen sink and M and M consultation styles, both were instantly recognisable to all participants, a strong reinforcement of the validity of findings from AV recordings. These were clearly ‘real’ models in use by participants, as

participants were able to articulate which one they used. Others indicated that they used both the kitchen sink and the M and M models, the choice largely being dependent upon the consultation time available. When shown a prototype model under development for this study, it presented new concepts to many participants, and some acknowledged it was:

“...*where things should be at*”. (M6:G2:N6:104).

It received general approval:

“*It’s ingenious*”, (M6:G3:N1:122).

On the whole, the concept of patient-centred care did not appear, and the perception that many travellers wanted the nurse to make the decisions for them was strong. However, that was not supported by later findings from travellers themselves in their interviews. One potential explanation is that the lengthy verbal interjections by nurses, moving rapidly from one risk to another, giving one piece of (usually negative) advice to another, was confusing to travellers. Without time to process the information – or much opportunity to talk or ask questions in a consultation dominated by the nurse – any confusion or uncertainty on the part of the traveller may be interpreted by the nurse as a lack of desire to make a decision. Education on consultation models – as opposed to isolated communication skills – is one implication for future practice. Again, the literature review showed the emphasis in travel health papers to be on *what* to include, not on *how* to deliver it.

By contrast, the literature on patient education focuses very much on the ‘how to’ elements (Redman, 2001; Knowles *et al*, 2005). As a process within the pre-travel health consultation, patient education techniques could also benefit from nurses having greater awareness of how adults learn, the need to tailor information for an

individual, starting with an assessment of what they already know, and an acknowledgement of their concerns and priorities. Although the AV recordings showed that leaflets were used to support the massive amounts of verbal information, no AV or focus group participant spent time using them *with* travellers. The potential negative impact of travel on health was emphasised by the focus groups, again as was found in the nurse participants of the AV recordings, but not in interviews with travellers. Several focus group nurses had experience of seeing people who had travelled abroad for medical procedures – so-called medical tourism – but views appeared skewed by seeing those who needed help because of complications. This is a view perpetrated by recent press and media coverage, but the literature lacks a perspective on how many people travel for health care and have successful outcomes, and would be an interesting line of future research. Focus group nurse participants also perceived their advice made a difference to how travellers acted and their eventual health status. Despite a few concrete examples of when this had happened, it is not a finding that matches what travellers reported in their interviews, and again, actual health outcomes of pre-travel health care are in much need of further research evidence.

Furthermore, the nursing literature offers a somewhat idealised view of what nurses *should* be doing in the pre-travel health consultation (Driver, 2003a, 2003b; Chiodini, 2004, 2008; Willcox, 2004). Such recommendations draw on the expert advice identified in the documentary analysis – but there is a conceptual leap from expert recommendations to this idealised provision of travel health consultations, missing out evidence of what ordinary nurses are *actually* doing. One contribution that this research makes is that it goes back a stage to examine what happens in between the formal advice from departments of health and the translation of that advice into what *should be*. Instead, it describes *what is*.

5.3.3 Emerging themes

In reviewing the findings it was possible to group them to identify three themes – the role of the woman in travel consultations, the division of labour between health care staff, and issues of safety and quality for both the traveller and the practitioner.

Theme one: this awareness of the role of women in health-seeking behaviours, and that women are more likely to attend, is already well recognised in general practice trends (Miles, 1991), but is not strongly evident in the field of travel health. Even when gender is recorded in studies on travel clinics (as in Zuckerman *et al*, 2000, who did note that more females than males attended), discussion of it as a phenomenon does not occur. It has implications for further research because this finding may not be the same in every culture. A limitation of this study is that with two exceptions, all traveller participants were of white British ethnic origin. There are also implications for future health education messages about travel, and whether this gender bias – if widespread – should influence the way in which health promotion operates.

Theme two: a division of labour, the sharing out of different consultation tasks, seems to have developed rather like the pre-travel health consultation itself – without overt planning, and in an *ad hoc* way in response to pressures of demand. It appears not to feature in any discussions within the travel health literature at present, although the concepts of delegation within care and skill mix have long been recognised in health care (Jenkins-Clarke *et al*, 1998). Teamwork, at least relating to travel health, appears absent or dysfunctional because there is no sense of shared purpose and co-ordination. This may be a contributory factor to some of the safety issues that were identified theme three.

The literature indicated that a wider range of healthcare workers are beginning to take on work relating to travel health. The role of pharmacists in travel health is supported by Goodyer and Gibbs (2004). Health care assistants are taking on tasks previously done by registered nurses, and may now administer influenza vaccines under direction and supervision (Working in Partnership Programme, 2009), so perhaps it is a matter of time before travel health clinics harness the skills of other practitioners in their service delivery. When practices instruct patients to use the MASTA telephone or online service to establish vaccination and malaria chemoprophylaxis, which are then given by practice nurses, several issues emerge. The cost to travellers can be considerable – one participant in focus group four estimated £9 per call. However, it was the apparent unquestioning acceptance that the advice was correct that posed a potential risk, as no individual assessment of the health status and suitability of the traveller for vaccination was made. Good quality assessment remains the precursor to the delivery of good quality care, and should therefore be the lynchpin of any future model of consultation or service delivery.

Theme three: safety is an under-researched concept within the context of the pre-travel health consultation. This research opens a debate about the degree to which practice is 'safe' for both the traveller and the clinician, and identifies resources such as time, training and systems-awareness that need to be in place for an optimum travel health consultation.

5.4 Conclusions

Phase two of this study examined what practice nurse participants said and did in practice, mapped against the recommendations by experts that emerged from documentary analysis, and organised within Donabedian's (2003) framework of

Structures, Processes, Outcomes. Practice nurses provide pre-travel health care against a difficult backdrop. The service has grown *ad hoc* with little evidence of any macro-level strategic planning, and it is not high on the agenda of general practice, being devoid of such planning, and not attracting points for the QOF that dominates prioritisation of general practice workloads. Travel health is therefore constrained by the time available for consultations and pressured because of the lack of appointments due to other demands, and is fitted in to general treatment room sessions that require the nurse to rapidly switch their concentration between different therapeutic and preventive areas of work. Travel health has few clear agreed actions, but multiple variables must be weighed against each other during the risk assessment and clinical decision-making, yet suitable education is hard to access, and practice nurses do not have the training on managing consultations that their GP colleagues now receive. What emerges is a picture of nurses seeking to do their best, and building good rapport with travellers, but with cracks below the surface that present potential safety and quality dilemmas for both travellers and practitioners. There are occasional drops in the number of travellers (e.g. the attack on New York in 2001, the SARS outbreak in 2003, and the economic recession of 2008–2009), but these appear temporary, and travel is projected to continue to grow (CDC, 2009). The demand for pre-travel health care is therefore likely to continue, and justifies an appraisal of the usefulness of the service, and whether resources could be targeted more appropriately. For these reasons phase three of this research moves on to explore how travellers use or discard the content of their pre-travel health consultation.

Chapter 6: Phase Three:

What do travellers say and do?

6.1 Introduction

This chapter draws on data from three methods to analyse travellers' experiences of health and ill health while abroad, and to understand their perceptions, decisions and actions. It investigates their experience of pre-travel health care provision, and its impact and usefulness. Method three AV recordings of travellers' consultations with nurses provided objective evidence of their role within the consultation; method four diaries tracked their health episodes abroad, and method five interviews produced rich data in which the travellers' perceptions and actions could be identified and interpreted in the light of their relationship with findings from other methods and the literature on travellers' health. These findings assist in answering questions about the way in which travellers use and discard the content of their pre-travel consultations, and utilise their own knowledge and strategies to manage their health. One unexpected finding is the theme of travel as a health-*giving* activity, counterbalancing the concept of risk that dominates the professional literature. The interpretation section (6.3) discusses the implications for this study, for practice and for the direction of future research.

6.2 Findings

6.2.1 Response rates and participant profiles

The non-probability, convenience sample of travellers successfully yielded a variety of travel scenarios, with travellers spanning the full adult age range, as shown in Table 12. They travelled mostly for personal social and leisure purposes,

demonstrating a range of prior travel experience, and visiting destinations mainly in the southern hemisphere, as illustrated in Figure 10.

Eighteen out of 32 travellers returned their health diaries, a response rate of 56 per cent. Twenty-nine of the 32 participants completed an interview, a response rate of 91 per cent. Of the three participants who did not complete an interview, one had decided to stay abroad and did not return home within the timescale of the study. Another did not answer the telephone, respond to the messages left on their answer-phone or a postal reminder. One cancelled their trip at the last moment on FCO advice about security at their destination. In five (of seven) cases where couples consented to participate in the study, it was the female partner who gave the telephone interview. When the researcher asked if it was possible to speak to their partner, only one brought him to the phone. Two women answered on behalf of their partners, the men were heard to be in agreement in the background. Two women said their partner would have nothing more to add and so an interview was unnecessary. The theme of women as guardians of the family's health which was initially recognised in the AV recordings (Chapter 5), is endorsed by these interview findings.

Table 12: Traveller profiles.

Age group (years) and gender	Destination(s)	Date and duration of travel	Experience of travel	Purpose of travel
1. Under 25 ♂	Mexico	Presented 4 weeks before trip of 2 weeks	Little	Beach holiday
2. 26 – 44 ♀	Thailand	Booked a year before a trip of 3 weeks	Little	Holiday
3. 60+ ♀ & ♂	Cape Verde	Presented 3 weeks before a trip of 2 weeks	Moderate	Beach holiday
4. 26 – 44 ♀ & ♂	Bali	Booked 8 weeks before a trip of 2 weeks	Substantial	Holiday
5. 26 – 44 ♀ & ♂	Kenya	Booked 4½ months before a trip of 10 days	Little	Safari holiday
6. 60+ ♀ & ♂	China	Presented 3 months before a trip of 2 weeks	Moderate	Sightseeing touring holiday
7. Under 25 ♂	Vietnam and China (Hong Kong)	Presented 5 weeks before a trip of 3½ weeks	Little	Gap year backpacking holiday
8. 45 – 59 ♂	Mexico	Presented 10 weeks before a trip of 2 weeks	Little	Beach holiday
9. 60+ ♀	Portugal, Antigua, Dominica and other unspecified Caribbean destinations	Presented 3 weeks before a trip of 3 weeks	Little	Cruising holiday
10. 60+ ♂	Argentina, Chile, Antarctica, Peru, Bolivia, Ecuador, Venezuela, Brazil and Columbia	Presented 6 weeks before a trip of 7 months	Substantial	Extended touring holiday
11. 26 – 44 ♀	United Arab Emirates	Presented 3 weeks before a trip of 1 week	Little	Beach holiday
12. 26 – 44 ♂	South Africa	Presented 7 weeks before a trip of 2 weeks	Little	Holiday and charitable visit
13. 60+ ♀ & ♂	Madeira, home (UK), then Egypt	Presented 5 weeks before two trips of a week each	Moderate	Holiday
14. 26 – 44 ♀ & ♂	Maldives	Presented 6 weeks before a trip of 2 weeks	Little	Beach holiday
15. 45 – 59 ♀	The Gambia	Presented 3 weeks before a trip of 2 weeks	Little	Friend's wedding

16.	45 – 59 ♀	Brazil and Argentina	Presented 9 weeks before a trip of 3 weeks	Little	Visiting family and friends; holiday
17.	45 – 59 ♂	Brazil and Argentina	Presented 9 weeks before a trip of 3 weeks	Little	Visiting family and friends; holiday
18.	26 – 44 ♀ & ♂	Nepal	Presented 11 days before a trip of 3 weeks	T24 Substantial T25 Moderate	Trekking holiday
19.	45 – 59 ♀	Australia	Presented 3 days before a trip of 1 week	Little	Family funeral
20.	45 – 59 ♀	Egypt	Presented 4 weeks before a trip of 2 weeks	Little	In memory of dead brother
21.	60+ ♂	Kenya	Presented 7 weeks before a trip of up to 3 months	Substantial	Missionary work
22.	60+ ♂	India: Mumbai, Surat, Gujarat, Andaman Islands Myanmar: Yangon India again: Mumbai, Assam	Presented 1 week before a trip of 5 months	Substantial	Business and visiting friends and relations
23.	60+ ♀	Australia	Presented 7 weeks before a trip of 10 weeks	Substantial	Visiting family and friends; holiday
24.	Under 25 ♀	Fiji, Samoa, New Zealand, Australia, Thailand Possibly Cambodia and Laos.	Presented 3 weeks before a trip of 8 – 12 months		Backpacking holiday
25.	26 – 44 ♀	Dubai, Australia, New Zealand.	Presented 6 weeks before a trip of 6 weeks	Little	Visiting family and friends; holiday

Table 12: Legend – Experience of travel:

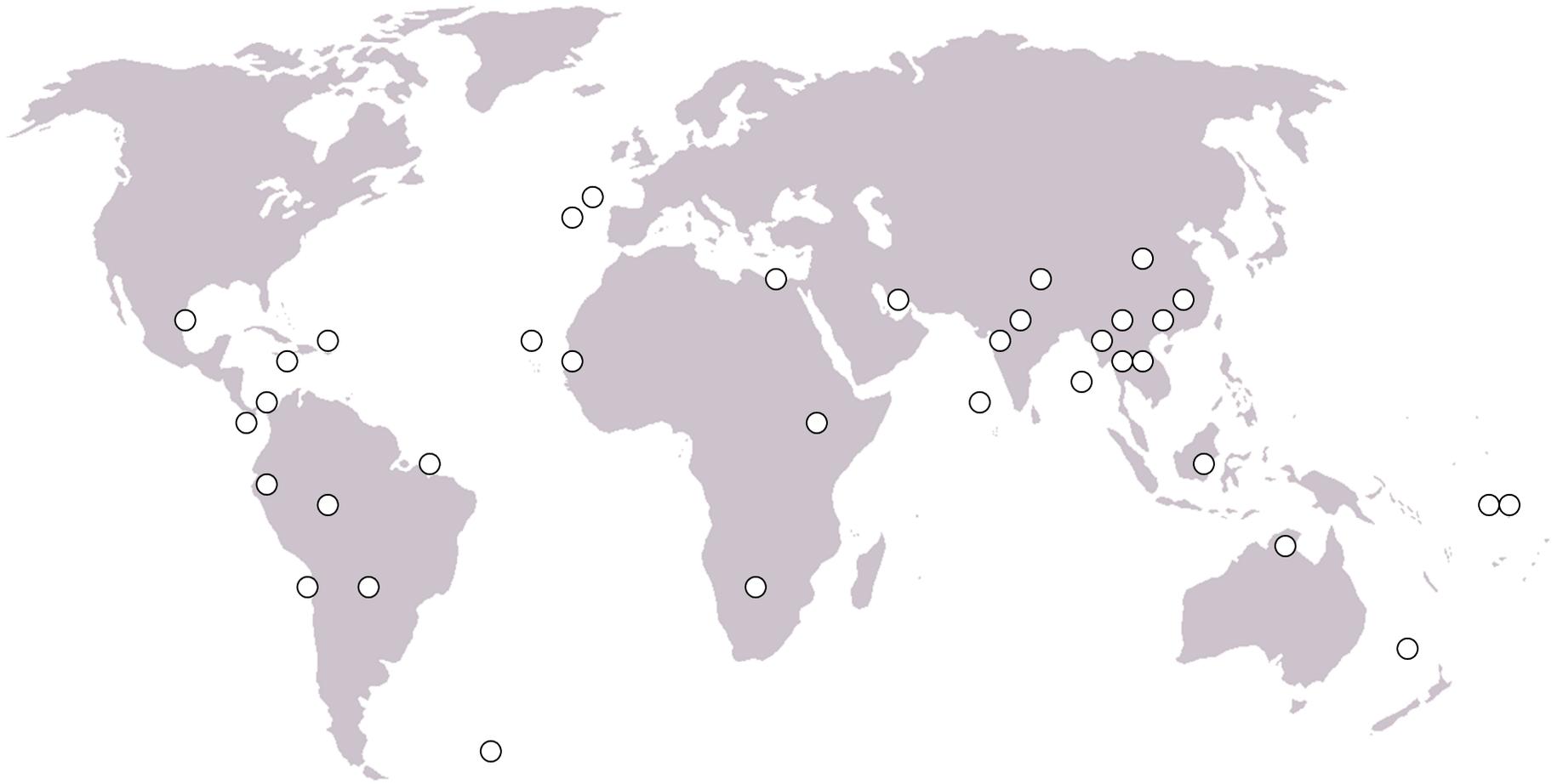
None: participant has never travelled abroad.

Little: short, infrequent trips to Europe or developed countries; or one package tour to a resort in a developing country.

Moderate: has travelled on two to four occasions to a developing country.

Substantial: has travelled on five or more occasions to developing countries; has visited the intended destination before.

Figure 10: Destinations of travellers.



6.2.2 How did participants use (or disregard) the contents of their pre-travel consultation?

Structures

Of the 29 participants who were interviewed, 27 received leaflets (93 per cent), 14 of whom also received website URLs (48 per cent). Their use of these resources was low, and is documented in Table 13.

Table 13: Participants' use of resources given to them by nurses.

Resource	Received this resource but did not recall doing so	Recalled receiving this resource but was already aware of the information it contained	Recalled receiving this resource but did not recall reading it, or any of the contents	Used this resource	Totals
Leaflets	31% (n = 9)	14% (n = 4)	48% (n = 14)	-	93% (n = 27)
Websites	14% (n = 4)	-	31% (n = 9)	3% (n = 1) (checked website for a specific risk reported in newspapers)	48% (n = 14)

Although the majority of participants were given leaflets about healthy travel during their consultation, and half were given websites to consult, the evidence that these were actively used is scant. The majority remembered receiving these resources but stated that they did not read or look at the contents, many did not recall receiving them (AV recordings provided evidence that they had done so).

Researcher (R): *“Now, you had some leaflets in the consultation. Did you use those at all?”*

Traveller (T): *“Um...I can't even remember what they were...”* (M5:T15:119).

A few participants looked at the resources but stated that they were already aware of the information they contained. There was only one occurrence of a participant acting on the advice within a resource: a mother who checked the recommended website because she became aware of a mumps outbreak in Australia (through a national newspaper), and she wanted to check the risk at her specific destination.

Processes

The aim of analysing processes, e.g. leaflet use or implementation of advice, was to find out whether travellers used the information and advice given by the nurse in their consultation. This was listed from the AV recording transcripts, and mapped against what travellers stated they did to protect their health in the interviews. There were many occasions when travellers appeared to have implemented advice from their consultation – they described actions that were congruent with evidence from the AV recordings.

However, when questioned about why they took an action or decision, or behaved a certain way, there were only 12 occasions when their action was a direct result of nursing advice or information in their consultation. Most travellers stated they already knew the risk existed and were aware of prevention strategies. When the traveller did cite nursing advice as the reason for their actions, it related to decision-making on malaria chemoprophylaxis (n = 4), or the purchase of products (sterile medical kits n = 3; insect repellents n = 4; bottled water n = 1). In contrast, there were many more occasions when specific advice in the consultation was not followed, as presented in Table 14.

Table 14: Travellers' actions that did not comply with nursing advice.

Advice and information provided verbally by nurse relating to:	Actions of travellers that were incongruent with this advice	Travellers perceptions of why they acted against this advice
Mode of travel	<p>Seven travellers were advised to take aspirin and wear compression socks to prevent flight-related DVT.</p> <p>One traveller was advised to give the children medicine to quieten them on the flight.</p>	<p>Two forgot. One said the socks were too expensive. The others did not specify a reason.</p> <p>This traveller said there was no need, the children were well behaved.</p>
Environment/climate	Three travellers got sunburned despite advice from the nurse.	One forgot. Two travellers said they knew about the advice already but didn't use their cream until after they were sunburned, or hadn't used enough.
Personal safety	(no examples)	
Infections for which there are no vaccines: Food and water hygiene	One traveller ate shellfish – something specifically mentioned as high risk by the nurse. Three others did not follow advice.	She felt able to make her own judgement based on the condition of the restaurant and local context. The others found it impractical to implement the advice at their destination.
Vaccines	Four travellers declined vaccine recommendations.	One forgot. Two did not specify a reason. One thought it wrong advice for his destination (he was correct).
Malaria prevention strategies: Insect bite prevention Malaria tablets	<p>Six travellers neglected to use measures advised by the nurse.</p> <p>Two travellers did not collect prescriptions as advised by the nurse.</p>	<p>Three bought products but forgot to use them until after they had been bitten. Two bought products but found there was no risk at the destination and so discontinued their use. One discontinued the recommended product because she disliked the chemicals.</p> <p>One traveller said it was cheaper for him to buy them at his destination. The other did not specify a reason.</p>
Exposure to blood/body fluids and sex	(no examples)	
Managing ill health abroad	Four travellers did not purchase sterile medical kits as recommended by the nurse.	One traveller thought it unnecessary. One did not recall that advice. Two did not specify a reason.

Processes: congruent actions

The incidence of travellers acting specifically on the advice the nurse gave in their consultation was very low with only 12 incidences of travellers acting on advice that was directly attributable to their consultation. These related to changing intentions on malaria prevention strategies (n = 4), and buying products advised by the nurse (n = 8). There were no incidences of travellers altering their behaviour (e.g. exercise on board the aircraft, adjusting their diet, avoiding sun exposure) on the specific advice of the nurse, despite such information forming large parts of most consultations.

Twelve pieces of advice being acted upon out of around seven hours of discussion could be argued to be a poor outcome. However, malaria and bite-prevention measures were the main pieces of advice to be accepted, and recent increases in malaria and other insect-borne infections such as dengue fever, leishmaniasis, Lyme borreliosis, and rickettsial disease have been reported by the HPA (2007). Such issues may be less familiar to UK citizens than topics such as sunburn, and perhaps they paid more attention because of that. This supports such advice remaining a key part of the pre-travel health consultation, although eight travellers also recalled this advice but failed to fully comply with it.

Nevertheless, it was noted that travellers bought products recommended in their consultations, e.g. bottled water, insect repellent and sterile medical kits. One possible explanation is that advice on specific equipment is easier to recall than advice about intangibles such as behavioural factors; or is simply easier to comply with.

While there is absolutely no suggestion that any nurse in this study stood to gain financially from their advice, there appeared to be a lack of awareness about branding. In the AV recordings nurses used commercial instead of generic names of medicines in their recommendations to travellers, e.g. Calpol and Nurofen instead of paracetamol and ibuprofen. These customs conflict with NMC guidance, appeared to influence the choices travellers made in their purchases, and in the case of medicines, increased the costs to travellers because brand names are more expensive than generic products.

There is some counterbalance to this noted in the case of the four travellers who changed their intentions on malaria prevention strategies as a direct result of nursing advice in the consultation. The positive effects included two people who did not have to take the malarial chemoprophylaxis they had intended, the nurse pointing out that their destination carried no risk, therefore preventing unnecessary medication. This was also the result for one traveller who, based on information from the nurse, decided to change their itinerary in order to avoid a risk from malaria and medication. The fourth traveller was not aware that their destination was a malarious area until informed by the nurse, and therefore took precautions as a direct result of this advice. Despite evidence that travellers took little note of verbal advice and information from the consultation when they were abroad, the topics of product purchase and malaria advice did have some influence. This, however, was somewhat overshadowed by the evidence of the advice and information travellers disregarded and acted against.

Processes: incongruent actions

When questioning travellers about whether they acted on information and advice provided by the nurse in their consultation, there were many incidents when they

explained why they had not. The most common explanation was that they did not recall being given that advice, but it was also rejected because:

- It was too expensive (e.g. anti-embolism flight socks, malaria chemoprophylaxis);
- It could not be practically implemented at the destination – this was particularly the case with food and water hygiene rules to prevent diarrhoea;
- There was no need for it at the destination – for instance, some travellers bought insect repellents on nursing advice, only to find there was no mosquito problem at their destination;
- They preferred to use their own judgement: one traveller was specifically advised to avoid shellfish to prevent diarrhoea, but she looked around the restaurants and concluded any risk was low;
- It was wrong advice: one traveller was told to contact a registered yellow fever centre because he would need vaccinating. He knew this was not the case for India and ignored the advice, but did not challenge the nurse.

Processes: information overload

The issue of there being simply too much to remember is an important one, and relates to findings from the documentary analysis undertaken in method one. The number of possible risks from travelling abroad is huge, as outlined in the formal information issued by the Department of Health (2001a) for the UK; the Centres for Disease Control and Prevention (2005) for the US; the Committee to Advise on Tropical Medicine and Travel (1999) for Canada, and the World Health Organisation (2005). For the purposes of this study the risks were grouped into eight categories used throughout this study:

1. General/other considerations
2. Risks related to the mode of travel

3. Environmental health risks
4. Injuries and violence
5. Infectious disease risks (non-vaccine-preventable; excluding sexually acquired infections)
6. Infectious disease risks (vaccine-preventable)
7. Malaria
8. Exposure to blood and body fluids (including sexual behavioural risks).

The AV recordings of consultations demonstrated that nurses tried to impart information on many of these, one commenting:

“You know, it’s hard to get into the 20 minutes, everything that you know, you think afterwards, God, I should have said that...” (M3:N4:T21:194).

Nurses attempt a literal translation of risks from the formal advice into individual consultations, delivering the ‘kitchen sink’ approach identified in the AV recordings. The interviews with travellers showed this approach appears to have little impact. This is illustrated well by one traveller commenting on the amount of information in her consultation (M5:T30:222):

T: *“I think there can be too much information. You know, it’s like the fashion shop – if it has the one fabulous dress in the window, everybody stops and goes ‘Ooh!’”*

R: *“Yes?”*

T: *“But if you’ve got a shop window with everything in it, it’s just wallpaper and you go by – and I think the same applies a lot with health information. It can be too much, too general, but if it’s not very much and it’s specific, I think it’s more likely to be taken on board.”*

This illustration relates not only to memory and recall, but to the ‘aerosol’ effect of generic leaflet use previously described. The impact and effect of verbal messages are reduced or lost in the ‘can’t see the wood for the trees’ effect of information overload.

Processes: rejection of advice and information

An additional proposition for why travellers failed to comply with advice is found in interview evidence that travellers consciously *rejected* much of what was imparted, either immediately, or later at their destination. If it is accepted that the traveller should be acknowledged as someone with prior knowledge and experiential learning (often greater than that of the nurse), and not as a ‘blank slate’ waiting to be filled with knowledge from an expert – then it can be argued that they are very likely to reject advice that does not ‘fit’ with what they know. Again, AV recordings demonstrated that there were no attempts to find out what the traveller already knew, or believed. Nurses selected the topics *they* deemed appropriate, and verbalised them in what Whitehead (2001) describes as a paternal approach to health education that has little connection with the recipient. What the interviews add is an outcomes dimension: that processes of imparting verbal information during the pre-travel health consultation have a limited effect on health behaviours or on health outcomes. For instance, travellers commonly experienced sunburn or diarrhoea, irrespective of any advice given.

Processes: beliefs

The likelihood that they were going to get ill anyway was well recognised by some travellers:

T: *“And another thing I notice is the...I, I – no matter what precaution we take*

– you’re bound to get diarrhoea.” (sic)

R: *“Yes?”*

T: *“And maybe sometimes it’s in air or something, you know.”*

(M5:T29:59).

This may be accounted for by the locus of control an individual possesses, a psychological construct much used in health promotion theoretical and applied literature (Tones and Tilford, 1994). The traveller above exhibits an external locus of control, a belief that ill health is largely out of his control, and that other causative factors hold sway. Whereas an *internal* locus of control would be illustrated by expressing a belief that one’s *own* behaviour or decision-making was the most important determinant of health and ill health. One participant illustrates this: she was indignant that she had become ill with diarrhoea while her travelling companion remained well:

“I’d eat bits and pieces but I mainly ate bread, because I really tried to stop...having anything that would cause it...my husband had it, my daughter had it...her husband never had it at all and he’s not a bit cautious!” (M5:T18:51).

6.2.3 What coping or prevention strategies did participants use to manage their health?

The diaries and interviews showed that travellers were largely able to self-manage and treat any episodes of ill health, and acted appropriately in seeking medical advice when their condition warranted it.

A total of 56 health problems were identified and discussed with the 29 participants who were interviewed for method five. Cross-referral to the AV recordings of their consultations showed that nurses had given 24 episodes of advice about preventing or managing those specific health problems. These are illustrated in Table 15, and where appropriate, the number of travellers is shown as a percentage of the 29 respondents.

Table 15: Health problems discussed in method five interviews.

Health problem	Number who reported this problem	Number of travellers with this problem who were advised about it in their consultation**	Outcomes		
			Problem resolved without action	Traveller self-medicated*	Traveller sought medical help
Insect bites	12 (41%)	11	5	6	1 (abroad)
Sun/heat injuries	11 (38%)	5	9	2	
Vomiting and/or diarrhoea	11 (38%)	8	4	6 (1 sought medical advice back in UK)	2 (1 back in UK, and 1 abroad)
Respiratory tract infections	4 (14%)			4	
Muscular-skeletal problems	4 (14%)		3	1	
Dermatological problems (exc. insect bites, sun and heat injuries)	4 (14%)		1	2	1 (in UK)
Related to mode of travel:	4 (14%)		2	2	
Nose bleeds	3 (10%)			1	2 (abroad)
Headache (exc. as a symptom of any of the above)	1 (3%)			1	
Haematuria	1 (3%)				1 (two consultants abroad; GP in UK)
Ran out of prescription medication	1 (3%)				1 (abroad)
Totals	56 occurrences of health problems	24 related episodes of pre-travel advice	24	25	8

* 'Self-medicated' refers to the use of a pharmaceutical medicine or product, not an item such as a toiletry that may be to hand.

** Data extracted from AV recordings.

The illnesses that travellers experienced abroad were mainly minor, managed without recourse to medical help, and in accordance with published data on the frequency of minor problems such as travellers' diarrhoea (Farthing, 2003), insect bites (Townend, 2004), sunburn (Hawk, 2002), and respiratory infections (Matteelli and Saleri, 2004).

However, two travellers experienced more serious problems: for one woman, her nosebleeds were severe and required emergency treatment from the medical officer aboard her cruise ship. They appeared to be a manifestation of a pre-existing problem of high blood pressure, which the nurse in the consultation was aware of from the notes but did not check. It is not known whether a check was appropriate however. The other traveller was concerned by the appearance of blood in his urine, and sought medical advice in India. The first doctor wanted to “operate”, which the traveller declined, seeking a second opinion from another doctor recommended by local relatives. A working diagnosis of prostatism was arrived at, and follow-up in the UK was recommended.

The AV recordings showed that the nursing assessments of travellers’ current health status, medication and past history were patchy and incomplete, although it cannot be assumed that these problems were avoidable if they were to have been assessed.

Travellers stated that they knew both preventive strategies and how to manage health problems because of “common sense”, that they “knew this already”, e.g. from family, friends, previous experience of illness and travel, and other sources such as books and websites they had found:

“Yeah, that’s just something I’ve always done...I couldn’t tell you where I first picked it up from, probably word of mouth from family and stuff like that really.” (M5:T1:56).

No-one related their ability to cope as being due to the content of their consultation or resources. One man who was clearly quite comfortable with the advice of the nurse to carry condoms during his consultation, discussed this in his

interview. He was already aware of the health risks associated with unprotected intercourse, and challenged the stereotypical view of the single male traveller being open to any and all sexual opportunities. Approached by West African prostitutes he says:

T: *“And so I – knowing the HIV problems in Africa, I would say that was a very big*

problem. And I have to confess – I was seriously tempted –”

R: *“Yes?”*

T: *“Because they were just beautiful.”*

R: *“Yes.”*

T: *“And er.... But I didn’t succumb...er –”*

R: *“And that was because the risk of HIV was foremost in your mind?”*

T: *“No, not really, it’s a morality thing.”*

R: *“Right?”*

T: *“Um – maybe I’m a little bit strange but that seems a barrier to me.”*

R: *“Yes?”*

T: *“I don’t like the feeling of a transaction for sex you know. It has to be something*

a bit more than that.” (M5:T14:226).

The existence of prior knowledge and attitudes – the *“knew this already”* statement, was also evident in the analysis of whether travellers accepted or rejected the advice and information provided verbally by nurses in the consultation.

Overwhelmingly, travellers cited *“I knew that already”* as the reason for their ability to manage episodes of ill health (Table 15), or their awareness of preventive

measures (M5:T1:42; T4:57; T16:81; T21:186; T 24:205; T 26:60; T29:303; T 30:17). Experience of previous travel, habits learned from parents, and occasionally other sources of information such as leaflets or websites were mentioned. “*Common sense*” was a phrase several travellers used as an explanation for their possession of knowledge (T11:208; T21:188).

Perceptions of risk

It was difficult to draw firm conclusions about travellers’ pre- and post-travel perceptions of risk because they spanned such a broad spectrum of topics, and possibilities versus probabilities. Two comments demonstrate perceptions at either end of a continuum, from the safety-conscious participant who opted for an all-inclusive resort to avoid negotiating unfamiliar places and people:

“We didn’t go into – we’re not adventurous – we don’t go bartering, and down the market.” (M5:T3:146),

To a mother taking her children on an extended, independent trip through Southeast Asia:

“...I always think we’re going to be fine! ...I wasn’t really worried about anything.” (M5:T32:99).

Travellers were generally aware of the risk of food- and water-borne gastrointestinal upsets before nurses advised them of the risk. Although personal injury and protection was not raised by nurses in their consultations, several travellers – all mature adults – were already aware of risks such as road traffic accidents.

One mother described the actions she took to prevent abduction or harm to her children by other people:

“You know, typically, as we never do, we didn’t let the children out of our sight.... We just don’t do that. We didn’t get a babysitter or anything like that. I think the Madeleine McCann situation has troubled me, scared every single parent in the world.”¹ (M5:T5:228).

6.2.4 Other findings: Travel as a healthy phenomenon

Two other groups of comments were noticed during transcript analysis, which were not originally sought or anticipated. Firstly, some travellers placed emphasis on travel being a *healthy* experience, and not being viewed in terms of risks to health. Secondly, there were unsolicited comments about the nurse with whom they had their consultation, most of which were positive and indicated an appreciation of the rapport and time involved.

Satisfaction with the consultation

It was not the intention of this study to examine travellers’ satisfaction with their consultation because patient satisfaction is a well-researched concept (Silverman *et al*, 2005). A frequent finding is that patients rated their consultation highly if their practitioner was ‘nice’ (e.g. warm, interested), and were not always in a position to judge clinical factors and processes (Roter and Hall, 2006). Re-inventing this finding would not contribute to the originality of this study and therefore satisfaction scales were not incorporated into the design. However, during interviews travellers gave unsolicited opinions which collectively demonstrated an immediate outcome of the consultation: they were very happy with their pre-travel health care, and particularly valued the role of the nurse. This occurred even when the traveller knew the advice the nurse was giving was wrong, and when the nurse was giving advice that the traveller already knew, and

¹ Madeleine McCann went missing during a family holiday in 2007. The story made international news.

when the nurse was causing confusion over vaccine choices. Three comments from travellers were:

"I think it was pretty comprehensive." (M5:T21:276).

"It was really good, we enjoyed...meeting her." (M5:T3:118).

"I mean, I'm sure it was, it was all useful really, and worthwhile...and obviously we had the necessary jabs, but..." (M5:T4:95).

The AV findings showed that travellers were remarkably passive and unchallenging in their consultations, and interviews with travellers corroborated this through the expressions of satisfaction. It may be that travel consultations are a low-stress type of encounter, travellers are mostly cheerful at the prospect of their holiday, and are not attending because they are ill and worried. This could influence their degree of satisfaction. Several travellers knew 'their' nurse, and the ongoing nature of patient-practitioner relationships in general practice might also influence their perceptions.

Travel as a healthy experience

Another unexpected theme that emerged from the interviews was the emphasis travellers placed on their travel being a health-*giving* activity. Examples included being more relaxed, either on a temporary basis as in this comment:

"It was a real chill-out." (M5:T4:145).

Or, for one participant, the lure of a less stressful lifestyle had longer term possibilities:

"I'm...very, very seriously considering living in Argentina...the quality of life is lovely." (M5:T14:393).

Comparing it to the UK, the return to stressed people back home was having a profound effect as he tried to settle back into his old life:

“...stressed over minutiae!.... The tiniest little thing, people are up in arms!”
(M5:T14:363).

For two others, the perceived health benefit was to their grieving processes and emotional well-being. One travelled to Australia for a family funeral, and despite suffering with jet lag and travel sickness, described it as good for her, something she wanted and needed to do. A second woman undertook the holiday in Egypt that had been cancelled a year ago because of her brother’s death. They were to have gone together: this time she took a friend as a tribute to her brother, which appeared to be a cathartic act of closure for her.

Two women had been taking antidepressants, and both felt a benefit to their moods as a result of their travel. One participant still felt generally better two weeks after her return:

T: *“You know and I found that really sort of helpful because I have been sort of, I do suffer sometimes with anxiety and stress you know?”*

R: *“Yes?”*

T: *“And it seemed to have done me the world of good and um, yeah and I’ve been fine.”* (M5:T27:94).

She had also expressed concern about her loss of weight in the consultation. This too improved with the holiday:

“So it seems to have given me an um, appetite back for some reason, I seem to be eating more and like I said I ate a lot on holiday.” (M5:T27:77).

The second woman with depression was middle-aged. She met a young local West African villager whom she now planned to marry:

“I thought – what’s the point in me taking antidepressants when I feel this good?” (M5:T21:142).

This sense of holidays doing travellers some good may contribute to an explanation of their tolerant passivity within the consultation and the tendency to disregard advice and information.

“Erm...I don’t know really, I’m like, quite a sort of positive person on stuff like that, and I always think we’re going to be fine! I wasn’t really worried about anything.” (M5:T32:99).

The belief and expectation that this trip *will do them good* outweighs or attenuates the recognised risks to health which they are sensibly addressing by coming along for vaccinations and malaria chemoprophylaxis.

For others, the health benefits existed more in medical than general well-being terms. Two participants bought medication, including their malaria chemoprophylaxis, at their destination because it was cheaper than in the UK, and one bought the antibiotic metronidazole as a precaution – which they did have to take during a bout of suspected giardia infection. Both used prior knowledge of the medication and its availability at their destination, and both were aware of the risk of the drugs being counterfeit, a well-recognised and growing problem (CDC, 2009). One traveller used local plant remedies bought at an African market to relieve her cold symptoms, apparently with a strong faith in ‘natural’ remedies outweighing any sense of caution over unknown products.

Two travellers sought medical opinions at their destination – one in India where he perceived a consultant’s opinion to be quicker and cheaper to access than

seeking one via his GP in the UK (although he accepted the local doctor's opinion that that is what he should do next). He explained:

T: *"Lots of people goes to India, in er, my home city as well – for heart bypass and things like that."* (sic)

R: "Yes?"

T: *"And it cost about – oh, 1600 pound."* (sic)

R: *"Yes? So do you know people from (names town), or from the UK, who go back to India for their operations?"*

T: *"Er...I haven't heard of people er, going to India – because they are... afraid, I think."*

R: "Mm?"

T: *"I mean, they, they go and get the minor things done."*

R: *"Minor things – yes?"*

T: *"Every time I go I get my teeth checked, and er, things like that."*

(M5:T29:165).

One woman booked dermatology appointments for her husband (who had six operations for melanoma removal in the UK), and for herself to be checked for skin cancer:

T: *"Um – so while we were there – knowing Australia, because of the climate, is streaks ahead in its education of GPs –"*

R: "Yes?"

T: *"We decided that we would get (names partner) checked out while he was there, and get any sunspots that looked as though they might be potentially dangerous, zapped."*

R: "Yes."

T: *“And...so while he was having that done, I said would they check me over as well?”*

R: *“Mm?”*

T: *“We were prepared to pay if need be, just because the level of experience is there.”*

R: *“Yes, yes.”*

T: *“But the GP there said there was absolutely no need, so I was checked over as well, and I – well, you know, so that was the one thing I did deliberately go out of my way to have done.... And it’s not that the GP isn’t informed, it’s that they’re not having that kind of education – in the UK.” (M5:T30:142).*

6.3 Interpretation and discussion

6.3.1 Methods and tools

The recruitment of traveller participants was undertaken in practices, prior to their travel health consultation with a nurse (see Chapter 3, *Methodology*). The age range and destinations of participants is in accord with accounts in the literature about travel patterns (ONS, 2008; WHO, 2008). The response rate for travellers wishing to participate was very high, possibly because they were personally approached by the nurse or researcher and given their letter of invitation. Two travellers declined participation: one because she had a separate health issue she wished to raise with the nurse, and the second gave her consent somewhat distractedly before proceeding to tell the researcher how stressed she was at the prospect of a long journey she did not want, the holiday was a “*surprise*” present from her daughter. Her distress was such that the researcher felt ethically bound to suggest she might prefer not to take part in the study, and the traveller agreed.

Many travellers made altruistic comments such as being pleased to be helping the NHS. The NHS REC required that permission was sought from GP senior partners, rightly so in view of this method being conducted on their premises with staff and patients for whom they held accountability. However, it did mean that travellers registered as patients of practices whose GPs declined to take part were disenfranchised from an individual decision about whether to participate in the research.

More than half of the participants returned their diaries (method four), which could be considered a reasonable response rate considering that failure to complete diaries is a recognised problem in research (Bowling, 2002; Walker *et al*, 2004). However, it is a low response compared to the willingness of the traveller participants to engage in the consultation recordings, and their completion of telephone interviews. Diary attrition was anticipated as travellers had other interests to occupy their time abroad. Actions had been taken to counter-balance this: the diaries were designed to be quick and simple to use, to fit inside the passport, and reminders were sent with a pre-paid return envelope. The passport is usually a document that travellers keep safe: it is to hand at the beginning and end of travel, and is likely to be referred to during travel (crossing borders, cashing traveller's cheques or foreign exchange). These regular visual sights of the diary may have prompted travellers to make entries (see Appendix 7 for sample diary).

The diaries fulfilled one intended objective, which was to provide information to initiate health discussions with travellers in the telephone interviews. After initial greetings it appeared less invasive to ask about a condition the traveller had already revealed in their diary, than to start an interview without knowing what, if

anything, had befallen the traveller. Analysing the diaries revealed an interesting observation: some diaries were completed by the female partner, or copied from a partner. This is a flaw of the method, and should be acknowledged as such, but it also echoes the finding in the videos of the prominence of the female partner in joint consultations.

The telephone interviews proved to be a useful method in contributing to answering the research questions. The expected attributes described in Chapter 3 *Methodology* were realised, such as allowing the gathering of rich qualitative data, permitting some control by the researcher over the length and content of the interview, yet also giving a voice to participants.

Recall bias was recognised as a potential drawback of telephone interviews, whereby participants forget or inaccurately recall factors about their health abroad. This was minimised by timing the interviews for approximately two weeks after the travellers' return, a period which allowed for most health issues to become apparent, or to have been resolved, while still fresh in the minds of participants. Also, the use of the diary prompted travellers to record health events, a useful aid for long-term travellers in particular.

The response rate of travellers participating in telephone interviews was pleasing at over 90 per cent, and participants were very willing to talk. The design of the interview schedule appeared to facilitate this, the semi-structured style allowed for both the systematic collection of data and for travellers to expand and contribute issues, which they did, sometimes with very intimate observations. This was an intention, and the schedule was designed to move in phases from uncontentious factual topics towards more personal issues (see Appendix 8, interview schedule).

The interview technique was successful in building rapport, implementing the schedule and ensuring participants did most of the talking, which they did without interruptions, and by the use of verbal and paraverbal sounds of encouragement to continue (e.g. *Oh yes? Mm?*).

Ethical considerations were an important part of the interview design and implementation. The interviewer acted ethically by establishing the participants' continued consent, and whether it was convenient for them to talk at the time of call. A non-judgemental manner and tone enabled participants to talk freely – for instance, one participant openly explained his decision-making process about whether to have sex with a prostitute or not. As the call was planned, most people had arranged to take it in a quiet time or place. However, in the four cases when women completed the interview on behalf of their male partners, it could be argued that the data were incomplete or skewed because the men were disenfranchised from participating. However, this corroborates a theme found in previous methods, where the woman is often the main protagonist in travel health matters.

An additional ethical consideration arose when one participant (who knew the researcher was a registered nurse) asked if she should bother taking antimalarial tablets again. She had visited a country with an extremely high risk of the most severe malaria, had taken her chemoprophylaxis but did not know of anyone contracting malaria. This caused the risk to diminish in her view, but she planned to visit again. It appeared that the advice of her nurse was being tested with the researcher. When piloting the interview schedule, the researcher had taken care to separate their role as investigator from that of practitioner, yet here was a circumstance that blurred those boundaries. However, clear guidance does exist:

the NMC (2008:1) states that a registered nurse must “*make the care of people your first concern*”, and therefore the participant was advised by the researcher that their destination remained a high-risk malarial area, and that advice on medication should be sought from their practice.

6.3.2 How did participants use (or disregard) the contents of their pre-travel consultation?

Structures

The provision of leaflets and other resources is widely recommended as a part of a pre-travel consultation in the literature (Bauer, 2002; Willcox, 2004). However, there is also evidence that they do not always work. As a mass communication for general information purposes they have what Mendelsohn (1968) described as an ‘aerosol’ effect, with little active ingredient reaching the intended recipient. Their propensity to end up as scrap paper can be mitigated however: Ewles and Simnett (1992) argue that the educator should actively involve the client with any printed materials, which are less likely to work if they are simply handed over without reference to their meaning for that individual. Bernhardt (2001) reinforces this message: health education materials on their own are unlikely to effect behavioural change in an individual. The implications are that the nurse should work through leaflets *with* the traveller to discuss what is relevant to them on this journey – and only if that information is likely to be new and unknown to the traveller. This was not observed to happen in AV recordings of consultations, where leaflets were handed to travellers automatically, or with a negative reference. A possible additional explanation may be that the focus on vaccines in the consultations leaves travellers with a false sense of security that all that is necessary has been done, and the leaflets appear redundant after the ‘event’.

The leaflets, as identified in the audit and corroborated by AV evidence, were produced in-house, printed from TRAVAX, or provided by vaccine manufacturers. The first two can suffer in appearance depending on the quality of the practice printer, but were black and white, text-heavy pages. The concept of *sender* → *message* → *receiver* is widely recognised as the basic form of communication in health educational settings (Naidoo and Wills, 2000). Corcoran (2007) explains that a health-promoting message starts with a sender who has a particular intent, and that this message is sent via signs and symbols which the receiver has to decode and act upon. A problem with any of these three key components will render the message ineffectual. In terms of the leaflets and websites within the consultations, possible message-blockers include:

- Problems with the sender: e.g. no emphasis placed on the resource, it is not related to the individual traveller or their trip, and it is not shared with them. It was sometimes presented as a chore: *“It’s a lot of bedtime reading for you.”* (M3:N4:T21:147).
- Problems with the messages: they may not be practical and achievable, and there may be simply too many of them. Problems with the medium of the message are that it does not use accessible language, pictures, or does not present risk appropriately. Shabby printing and dense text are less appealing to read. Carducci *et al* (2009) researched the quality of printed educational resources used in Italian travel clinics, produced mainly by public health authorities and pharmaceutical companies. The reading levels were generally too hard for average adults to easily comprehend, and there was a recommendation that health behaviour models should guide the structure of the text, and that travellers should be more involved in their design. It seems feasible that these findings might apply in the UK too.

- Problems with the receiver: the traveller might not believe or remember the message. It could be a problem of context: the traveller has too many arrangements to think about: the main task – the vaccines – is done. Further reading *is* perceived as the chore it was presented as.

It was not only the tangible resources of leaflets and websites that failed to make much impression on travellers – the verbal advice and information that nurses gave seemed also to suffer the ‘aerosol’ effect, as the analysis of processes revealed.

Processes: congruent actions

When travellers took an action that was congruent with the advice received in their consultation, it was mainly related to tangible behaviour such as buying a specific product recommended by the nurse. Advice on product purchase raises a question about the degree to which nurses are aware of potential commercial bias within their consultations. In the cases of the insect repellents and sterile medical kits, specific brands or specific suppliers were often stated, although many others were available. One nurse directed travellers to items they could purchase from reception, which generated income for the practice. This could be construed as a useful service to travellers on the local availability of products and suppliers, but it is also a potential conflict with NMC guidance (2008:5) to be impartial: *“You must ensure that your professional judgement is not influenced by any commercial considerations.”*

Elsewhere in the literature there is debate about the degree to which health professionals are subject to commercial influence. A meta-analysis of research concluded that interactions between doctors and the pharmaceutical industry *did*

affect prescribing and professional behaviour (Wazana, 2000). Others have found commercial influences upon nurses' prescribing behaviour (Spicer, 2006) and professional development (DeSilets, 2006). The field of travel medicine, like other specialisms, has not exempted itself from such commercial engagement. Some of the leaflets and websites, and all the vaccination record books used by participants in this study were supplied by vaccine or malaria drug manufacturers. Such resources are required to meet standards produced by the ABPI (2006). However, the provision of leaflets is often dependent on the nurse agreeing to meet the company representative or stock their products. Independent organisations such as the BTHA are reliant upon commercial sponsorship and carry their logos on the homepage (BTHA, 2008); international peer-reviewed publications such as the *Journal of Travel Medicine* carry product and resource advertising (ISTM, 2008); and pharmaceutical companies provide educational events (Sanofi Pasteur MSD Ltd, 2008). The literature reveals little attention to the effects of commercial engagement on pre-travel clinical practice, and it may be a future research focus if the influences – including commercial ones – on decision-making processes of clinicians and travellers are to be better understood in travel health.

Processes: incongruence between nursing advice and travellers' actions

Not remembering what was said is a major reason for non-compliance, a factor that is widely recognised in the literature on consultations (Usherwood, 1999; Pendleton *et al*, 2003), patient education and counselling (Quinn, 2000; Redman, 2001), and in theories of adult learning (Quinn, 2000; Knowles *et al*, 2005). Before considering these perspectives on memory and recall, it is worth noting that using the bricolage design was helpful in establishing that non-compliance was not just attributable to recall bias, an acknowledged methodological flaw of interviews. The

AV recordings had provided objective evidence of what advice and information had been imparted, which was then interrogated and mapped in interviews with travellers to find out how that information had been used or discarded, and what outcomes it had produced for the traveller abroad.

The degree to which people remember information imparted to them varies. Quinn (2000) estimated 20 per cent of information being recalled after one week from lecture-style teaching. Ley (1979, 1988) asserted that approximately 50 per cent of information from consultations was forgotten, but this has been contested elsewhere. Tuckett *et al* (1985) estimated that patients recalled much *more* than 50 per cent, although this might be due to the perceived personal importance of medical information being imparted – perhaps relating to an *actual* condition the patient had real concerns about. Numerous, nebulous *possible* problems abroad may not carry the same cognitive weight for participants in this study. The field of psychology has long recognised the effects on memory of primacy (items at the start of a list are more likely to be recalled than those in the middle, and what is learned first often has most impact), and recency (items at the end of a list are more likely to be recalled than those in the middle, and there is a shorter period in which to forget information). The dominance of either the primacy effect or the recency effect will vary according to context and situation (AllPsych, 2009). However, the suffix effect can counteract the recency effect by following the list with irrelevant speech (Baddeley, 1997). This raises questions about how nurses and travellers group information perceptually, and suggests that psychology could help the fields of travel health and consultations research, to structure and present information and advice more effectively.

Psychological theories also seem to offer some understanding of the phenomenon of advice rejection, particularly the concept of resistance. This is when a recipient actively resists and rejects a health education message from a health professional. They may be annoyed by it, tempted to present a counter-argument, or rebel against it. Whitehead and Russell (2003) describe an extreme form of health resistance – reactance – in which people are motivated to do the opposite of what the health professional has advised, as a response to a perceived threat to their personal freedom. Although further development and investigation of this explanatory framework is outside the scope of this study, more research using psychological perspectives – such as Crossley’s (2001) health resistance scale – could offer illumination on the issue of non-compliance.

There are also possible benefits of cross-matching resistance theory with other strands of psychological theory relating to both education and communication. Moulton (2007) provides many examples of how clinicians use negative words such as *no*, *not*, *don’t*, *can’t*, and *mustn’t* when providing information and advice to patients, which for some people subliminally invokes an opposite intention or causes them to discard that information. This is a theme expounded by Walker (2002) about the value of neuro-linguistic programming in consultations, arguing the importance of what is said and how it is phrased.

In relation to beliefs held by travellers, health promotion theory postulates that understanding an individual’s locus of control helps practitioners to tailor advice and interventions according to the recipient’s belief system (Jacobs-Quadrel and Lau, 2006), and would suggest that time is spent on finding out just what that entails. The absence of attempts in the consultations to find out where the traveller

is 'at' in terms of prior knowledge and beliefs, therefore runs counter to another keystone of patient and adult educational theory.

6.3.3 Participants' management of their health abroad

Some of the medical problems experienced by travellers were unrelated to travel. These sorts of events are also in accordance with the literature which recognises that people are just as likely to have exacerbations or new episodes of ill health abroad as they are at home, rationalising the necessity of existing conditions being assessed as part of the pre-travel consultation (Hargarten *et al*, 1991).

In relating the "*I knew this already*" statement made by travellers to published literature, there are both conflicting and supporting data. Fourteen studies on travellers' knowledge were found in the *Journal of Travel Medicine*, published between 1994 and 2009. Most used a quantitative survey design with questionnaires that were mainly self-administered at airports and some travel clinics – they were therefore not methodologically comparable to this study. Where travel clinics and a culture of preventive health care were not well established, knowledge and vaccination uptake were (predictably) low (Wilder-Smith *et al*, 2004; Yoo *et al*, 2007; Guerrero-Lillo *et al*, 2009). A concerning trend emerged where there were findings that travellers' knowledge of specific vaccine-preventable diseases was low, building an implied criticism of both travellers and their health care professionals. Declaring conflicts of interest are a recent requirement of this journal, but they are useful when evaluating reports. For instance, Wilder-Smith *et al* (2007b) researched pertussis knowledge among travellers, concluding that it was low, therefore travel medicine practitioners should increase awareness and vaccination rates should be raised. Should health practitioners take heed? The authors state that more research is needed to

quantify the risk of pertussis in adult travellers. There are no firm recommendations on pertussis vaccination in the analysis of official travel health guidance. GlaxoSmithKline sponsored the study, two of the authors were employed by GSK and one was paid a fee for their contribution. GlaxoSmithKline manufacture pertussis vaccines. To use travellers' lack of knowledge about a vaccine that is not part of mainstream travel medicine, and for which the risk to travellers is not fully known, seems a dubious argument for more education to be included in the pre-travel health consultation.

Three studies concluded that travellers' knowledge of risks and preventive strategies was actually good – especially if they had some prior experience of travel. It was *compliance* with preventive measures that was poor, with forgetfulness being an important explanation (Genton and Behrens, 1994; Laver *et al*, 2001; Weber *et al*, 2003). These findings have more accord with those found in this qualitative study. There are clear methodological differences and sample numbers, but the interviews appear to offer a depth of understanding to studies that have established the pre-existence of knowledge in travellers.

Perceptions of risk

Risk perception is another facet of this need to understand the starting position of the traveller. It is one of the observable outcomes of travel consultations, but travellers tended to prove or refute their perceptions of risk because of their experiential learning, and not because of the advice they received during their consultation. Again, risk perception was not observed as being assessed in any of the consultations, but the interviews facilitated its examination. Generally, travellers perceived common, minor complaints such as insect bites and upset stomachs to be the most likely risk to their health, a perception that is supported

by other evidence of frequencies of illness in travellers (Freedman *et al*, 2006). Epidemiologically, road traffic accidents and water-based accidents were the most likely causes of death (after cardiac events) in travellers (Hargarten *et al*, 1991), and four participants perceived road traffic accidents to be a major risk – an issue that was not addressed in any of the consultations, but could be incorporated into a new model.

6.3.4 Other findings: Travel as a healthy phenomenon

There is little in the travel literature about it being a health-giving activity, as was perceived by some participants. However, the active seeking of medical advice or interventions abroad is a growing area of interest in the literature. It sparked a debate in early 2009 about the NHS bearing the cost of operations that go wrong, with particular criticism aimed at cosmetic procedures (Smith, 2008). In the field of travel health, the concern is that people who travel abroad for surgery do not pay sufficient attention to the *travel* elements of their journey, perhaps forgoing vaccines or malaria-prevention strategies necessary for their destination (CDC, 2009). This could add an interesting new aspect to the debate about the pre-travel health consultation, and whether nurses should be alert to the possible use of medical facilities abroad by their travellers, particularly as the projected growth of travel for medical purposes is strong (Woodman, 2008; Jaimovich, 2009).

An additional point to note about the middle-aged female participant who planned to marry a young African man, is that although the individual interpreted this event as a unique, consensual holiday romance, sociological literature recognises an emerging pattern of sex tourism as a new facet of colonialism. Ryan and Hall (2001) identify broad patterns of sexual behaviour in middle-aged, white, western women with younger, black men. O'Connell Davidson and Sanchez Taylor (1999)

describe the 'true love' image women attribute to such relationships; they did not see their experience as a commercial sex transaction. However, cash, gifts, meals and other exchanges of value to their partners were an inherent part of the 'deal'.

6.4 Conclusions

The bricolage design of using three methods to investigate what travellers do and say, proved again to be a useful way to triangulate findings and to gain more understanding than had only one method been used in isolation. AV recordings showed cheerful, passive travellers, seemingly accepting of what the nurse imparted. The diaries (method four) contributed to answering one of the original research questions about the travellers' experiences and utilisation of their consultation, but the flaws in the method tend to predominate, and in retrospect, outweigh the benefits of including diaries as a method in this study. Such a realisation, together with the experience of using diaries, has provided valuable learning for the researcher rather than adding a necessary component to this study.

Interviewing travellers (method five) after their return from abroad was a more useful method, contributing to an understanding of how people managed their health and ill health while away, and evaluating how much of their decision-making was likely to be due to their consultations. Methodological drawbacks such as recall bias and lack of access to some male partners were recognised, and attempts made to mitigate them. The response rate was good and the data plentiful, offering a rare in-depth qualitative study to contribute to a field of literature dominated by survey methodology. It contributed knowledge about pre-travel consultation outcomes, some of which are recognisable from other studies,

such as patient satisfaction. Other outcomes are not widely acknowledged elsewhere, such as the concept of travel as a health-giving activity. The links between what travellers are told and what they actually do, appear tenuous, for various possible reasons:

- travellers know much of the advice already
- they cannot remember all of what is said
- or they cannot implement that advice, for reasons such as cost, or circumstances at their destinations
- they do not accept or believe all the advice
- they get illnesses the nurse has advised about
- but they also get other illnesses that have not been mentioned.

No apparent differences were detected according to whether travellers received the Kitchen Sink or the Medical and Minimal style of consultation – neither appeared to be more effective. This poses the question whether pre-travel consultations should continue in their present form, given that so much time is spent on them. From the interview data, possible changes that could be made include the need for practitioners to recognise what travellers already know and believe, and to start any education from that point. There appears to be dissonance between the negative messages imparted about risk by nurses, and the positive outlooks held by travellers. This relates to the literature on risk communication identified in Chapter 2, which emphasised the need for positive, solution-focused communication (Collin and Lee, 2003). They need to find ways to present risks that are much more realistic to that individual's itinerary, tailoring print and other resources so that they are applicable to that individual, and working with that resource and individual in the consultation. Specific consultation training for nurses is one implication for practice. The field of travel health would benefit from planning studies jointly with researchers from behavioural psychology

and health promotion disciplines, to understand better why and how people act in concordance (or not) with advice. There is also a remaining question about whether an individual consultation is the best medium for travel health education and promotion – a topic that is further explored in the next chapter, focusing on the design of a new model of consultation.

Chapter 7: Towards a new model

7.1 Introduction

This chapter draws on the findings and discussion in previous chapters to develop a consultation model for pre-travel health care. It argues that a new model of consultation is needed in the future for four reasons: firstly, existing models described in the literature do not fit what the pre-travel health consultation seeks to achieve. Secondly, practice nurses have articulated the difficulties associated with providing these consultations, and need solutions. Thirdly, travellers are not receiving the optimal quality of care that is possible. Finally, current practice is not congruent with external factors that influence the *minutiae* of general practice, such as the NHS quality agenda, and the changing landscape of care provision. After establishing a case for a new model of consultation, a prototype that takes account of the main findings from this study is proposed. It utilises support from the literature on aspects of best practice, and from the embryonic development of quality assurance standards within the field of travel health.

7.2 Models used by participants

In Chapter 5, two styles of consultation were identified as being used by nurse participants, labelled as the 'kitchen sink' consultation, a colloquial phrase meaning it was inclusive of almost everything, and the 'M and M' consultation, standing for medical and minimal. A quasi-traditional medical model was employed in these consultations due to the dominance of pharmaceutical interventions (vaccines and malaria chemoprophylaxis) in comparison with health education. Although all nurses provided advice and information, it was lectured 'at' the traveller, and was mainly illness-focused and appertaining to infectious diseases. This fits the germ theory Hansen and Easthope (2007) describe as the

dominant explanatory framework for health care since the 19th century. They argue that this dominance is now challenged by other explanatory frameworks such as environmental causes of ill health, and there was some limited evidence of this perspective, for instance in the advice nurses gave on the risk of sunburn. Hansen and Easthope also cite the epidemiological approach to understanding health and ill health. Travel health epidemiology recognises accidents and pre-existing morbidity as the main causes of mortality in travellers, and not infectious diseases (Hargarten *et al*, 1991; Wilks, 2004; HPA, 2007), but only one of the 32 consultations featured any discussion on personal safety, and only half of the travellers had their health status assessed. There was no evidence of epidemiological knowledge underpinning the assessment or advice by the nurse participants. The main thrust of Hansen and Easthope's argument is that health care is now dominated by the ideology of 'lifestylism', with an emphasis on individual responsibility for behaviours that influence health or cause illness. This ideology was expressed by all the nurses in AV recordings:

"So you're going to get hepatitis B if you have something pierced, tattooed, um, unprotected sex with the locals – which I'm sure you're not going to do!"
(M3:N2:T7:41).

"Don't drink too much alcohol on the flight." (M3:N1:T1:57).

"So the water out there is dodgy, you're going to need to treat it...so if you've got the advice books have a good read through those before you attempt to go in any water sources." (M3:N3:T14:152).

"What you should be doing is things like avoiding the ice-cream...your rices, your salads..." (M3:N5:T17 and 18:54).

Wider influences on the model of consultation, such as epidemiological knowledge, are not yet employed to their full potential, although there is a small body of literature arguing that this should be so (e.g. Merrill, 2002). Establishing transferable inferences for the individual from broad epidemiological data is an acknowledged difficulty (Moon and Gould, 2000), although the risks of accidents and exacerbations of existing conditions are clearly established in relation to travel health (HPA, 2007).

Phases of the consultation

Findings in Chapter 5 indicated that phases of the consultation diverged from models described in the literature. The phases were not linear, neat and ordered, but somewhat iterative and fragmented, as visually depicted in the barcodes in Figure 9. Something about the pre-travel consultation is different to what existing models say happens, and when. There is some acknowledgement in the literature that consultations do not routinely follow a logical pattern (Launer, 2002), but the overall impression is one of a usually predictable and even flow from one phase to the next.

What are the implications of this fragmented approach to the phases of the consultation? One potential explanation is that it is a positive feature: nurses could be breaking up the delivery of information and advice to make it easier for the traveller to understand one issue at a time because of the multiplicity of health issues that have to be addressed, a technique that could be educationally sound. On examining the videos and transcripts specifically for this, it did not seem apparent. Advice from the nurse was sometimes delivered in a long monologue, and did not always directly follow an assessment. Interactions relating to pharmaceutical interventions – vaccines and malaria chemoprophylaxis – were

also fragmented. A more likely explanation centres on the complexity and number of topics that *could* be addressed in a pre-travel health consultation, as identified by expert opinion comprising the formal guidance documents analysed in method one. Nurses in the AV recordings appeared to feel pressured to cover every topic, and this was confirmed by focus group nurse participants. The implications for practice are that there is a need for training in consultation skills and a more traveller-centred risk assessment, with identification of priority risks for focused advice and education.

Opening and closing phases

The literature establishes the need to complete 'tasks' in a consultation (Kurtz *et al*, 2005): what Cohen-Cole (1991) calls 'functions' and Neighbour (2005) calls 'checkpoints'. Pendleton *et al* (2003) identify some of these tasks as establishing a shared agenda, or asking an open question to invite the person to talk (and then actively listening), finding out the patient's perspective, and joint planning. These were not evident in the pre-travel consultation data, and a key question is: why is that the case? Such tasks have a wide relevance within health care interactions , so it is difficult to argue that they are not relevant to the topic of travel health.

Some travellers had specific concerns they wanted to talk about, and their cues or blatant questions were not adequately picked up, such as a co-habiting couple travelling to Dubai who were worried about Arab laws adversely interpreting their unmarried status or the medicines they needed to carry.

The absence of task management (e.g. establishing an agenda), within these consultations appears to be linked with the authoritative role and quasi-medical models adopted by nurses. Perhaps this is a training issue, and the literature review did establish the lack of consultation training for nurses. It may also be due

to lack of time, for even though many consultations appeared to be of sufficient length, nurses voiced the difficulty of *“fitting it all in”*, and made few attempts to prioritise information-giving. Making a transition between the opening and the assessment phases could more usefully begin with open questions such as “Tell me about this trip” and “What do *you* think are the main risks to your health?” These are more likely to elicit the information the nurse needs to assess both risk and the concerns or perceptions of the traveller, giving them much more of a voice and a place within the consultation than was evident from the data.

Closing phases were also brief, and again, contained none of the tasks such as summarising or safety netting, although occasionally a nurse asked if the traveller had any questions, or suggested that they could always phone if they had any more queries. Closure was almost always initiated by the nurse, for instance by turning away to dispose of vaccination equipment, or to complete notes on the computer, accompanied by phrases such as *“Well have a lovely holiday!”* (M3:N3:T19 and 20:382), or *“Alright? Just wait outside for five minutes after vaccination.”* (M3:N5:T16:310). One consultation showed four attempts by the nurse to end the consultation, with the traveller seemingly reluctant to leave (Figure 9, sample 1, p.201).

Assessment phases

The assessment phase is acknowledged as the cornerstone of the consultation on which the quality of any intervention or advice is dependent (Kinnersley *et al*, 1999). In travel health, an assessment is needed both of the trip and of the person travelling, before risks for each individual can be accurately established. The guidance documents analysed in method one were clear about this dual aspect of what to assess, as is the nursing literature (RCN, 2005, 2007).

There are several aspects about the assessment phases of the consultations that are of concern. They are incomplete, and advice and various interventions are provided without a full assessment being clearly established early on in the consultation. Practice did not accord with literature findings (Chapter 2) on risk assessment. As there are implications for the safety, accuracy and efficacy of the consultation, the assessment is a major component of the new model presented later in this chapter.

Intervention phases

'Intervention' refers here to the discussion and actions solely concerned with vaccine-preventable infections and malaria, both of which require decision-making about the use of pharmaceutical products. Like the assessment phases, these were fragmented, the nurse often broaching other topics during talk about, or administration of, a vaccine, then coming back to it. In terms of the quality of these interventions, nurses generally gave appropriate vaccines and specified a correct choice of malaria chemoprophylaxis for the destinations, but there were a few instances of error (under- or over-prescribing) that were identified in Chapter 5 under issues of patient safety.

Nurses briefly checked that the traveller consented to the vaccine, although the information required to support the concept of *informed* consent was questionable because the balance of potential benefit and harm of having – or not having – the vaccine was not discussed. This may be because quantifiable terms by which to understand the chance of contracting an infectious disease, or experiencing an adverse effect from a vaccine are not easily accessible. An implication for the practice of travel health would be to develop information such as visual charts depicting numbers needed to treat (NNT) statistics for vaccines (Edwards *et al*,

2002). Such an initiative faces two main challenges. Firstly, the data are patchy regarding the precise types and numbers of travel-related infections, an issue over which the HPA (2007) has called for better history-taking and travel reporting by health professionals and laboratories. Surveillance work reported by Freedman *et al* (2006) attempts to make more explicit the extent of travel-related infections among travellers to under-developed destinations, but distilling the findings into meaningful advice for an individual UK citizen is also error-prone. Secondly, risks vary over time and space – for instance, most cases of typhoid in the UK are contracted in the Indian sub-continent, but an outbreak elsewhere is entirely possible, and any instrument to quantify risks would need to be quickly updated according to such changing circumstances. The most evidence-based tool that nurses had to advise travellers on risk is the TRAVAX database, but as the findings on structures showed, the participants tended to use it as a definitive list, with limited interpretation of whether each risk applied to the particular individual at that time.

This is an issue highlighted by Behrens (2009), who argues that policies and guidelines drawn up by expert bodies (such as those identified for documentary analysis), are based on generalised conditions within countries, and on broad, often limited, epidemiological data. Such standards and guidelines are not universally agreed upon by experts, and are difficult to translate for individuals, or not applicable to all travellers. Behrens argues that the authoritative presence of such information leads practitioners into feeling they must comply.

Counselling phases

Counselling – meaning information-giving, advice and education about managing risks other than malaria or those preventable by vaccines – took up considerable

consultation time for several participants. Nurses dominated the talk in these phases, with a somewhat didactic approach to information giving and advising, rather than an educational or empowering approach: “*Fish – avoid shellfish*” (M3:N2:T2:68). As in this example, a noticeable feature was the negative phrasing used by all nurse participants, who repeatedly told travellers what *not* to do, with words such as “*don’t*”, “*shouldn’t*”, “*can’t*”, “*mustn’t*” and “*avoid*”, occurring frequently. Even when an action was positively phrased – e.g. advice to use sun barrier cream, the language was authoritative, telling the traveller what to do, e.g. “*you should...*”. Methods four (travel diaries) and five (post-travel interviews) indicated that travellers did not put such messages into practice.

Being comfortable with raising sensitive topics is a key skill in health care communications, recognised particularly in sexual health promotion (Burnard, 1999), and the ability to choose and use phrases that are well received by travellers is clearly an important ‘how to’ aspect of the travel health consultation. This incident acts as a sort of prism or lens on travel health literature – including the guidance analysed in method one – which focuses far more on the ‘what to’ include as subject matter in a consultation. The participant above knew *what* to talk about, but lacked the ‘how to’ skills that the participant with sexual health training demonstrated. An implication of this for practice is that better education is required on the ‘how to’ aspects of a consultation, and the concept of how patten – appropriately used – can convey subjects which an inexperienced nurse finds difficult to give, and the traveller is unsure of how to receive.

‘Other’ phases

Interruptions occurred in six consultations: two phone-calls, a nurse walking in, and three occasions when HCAs walked in. All except one failed to knock and

wait for permission to enter. Interruptions such as these change the dynamics of the consultation, and cause a break in concentration, an issue that contributed to the theme of error and potential threats to patient safety as discussed in Chapter 5. The interruptions also gave a sense that patient-centredness was not part of the practice culture because the needs of staff were met at the expense of the sanctity of the consultation.

A tension was found to exist between the long list of ‘what’ to include in consultations (the content identified by expert opinions analysed in Chapter 4), and ‘how’ they should be conducted (as identified in Chapter 3 from the literature relating to processes). This tension was evident in the analysis of the AV recordings and the focus group discussions analysed in Chapter 5. For instance, AV recordings showed that when nurses adopted a ‘kitchen sink’ style, they attempted to cover ‘what’ experts listed as necessary content. This was done at speed because of time constraints, but even so, no participant was able to address all content. The resultant verbal exposition to travellers was at variance with the knowledge of ‘how’ to deliver health education messages raised in the literature review, e.g. the need to elicit existing knowledge and understanding before intervening (Whitehead, 2004; Bauer, 2005; Knowles *et al*, 2005; Roter and Hall, 2006).

7.3 The need for consultation models

7.3.1 Consultation models – a general view

The literature review considered the various meanings and definitions of the word ‘model’, which for the purposes of this chapter is accepted as being a representation of reality. In the nursing literature the terms ‘model’ and ‘theory’ are often used interchangeably, an approach which can be challenged. Theories are

larger entities that shape the model of consultation – for instance, acceptance of a positivist, reductionist theory of health could lead to a more biomedical-orientated consultation style. The literature review also noted that in nursing curricula, *models* of consultation rarely featured, although communication and consultation *skills* were addressed. The definition used here is that a model is a framework that reflects operant theory, and within it, utilises various skills.

The reason for researching the use of models in health consultations is very pragmatic: models allow practitioners to stand back and view how and why things are done, and to reflect on the personal and contextual factors that shape service provision. Only then is it possible to determine how the quality of care can be improved.

7.3.2 Why pre-travel health care needs a new consultation model

Four reasons have emerged from this research to support the argument for a specific model of consultation for pre-travel health care. The first reason is that existing models do not fit travel health, although they can contribute useful concepts, e.g. the nursing process discussed in the literature review. Travel health occupies a unique place within the many facets of general practice nursing. The people attending are not usually ill (although they may have pre-existing conditions that need to be taken into account), and the term ‘patient’ does not accurately reflect their place in the health care system, as other community practitioners such as midwives, health visitors and learning disability nurses have established for their clients. However, the literature review revealed that much of the research into consultations, and the models developed as a result, are focused on the agendas of doctors and sick patients. The work done on non-sickness reasons for consulting is commonly focused on longitudinal health

promotion activities. Models such as the transtheoretical model of behavioural change (Prochaska and DiClemente, 1998) reflect the need to address existing behavioural patterns over a period of time. Again, these are not applicable to the phenomenon of the pre-travel health consultation, whereby a single, short encounter, often close to the date of travel, is commonplace. Other models such as brief interventions or motivational interviews, share a key feature with travel consultations - the limited contact time between client and practitioner. However, they are designed to address a specific and singular *pre-existing* problem or goal, usually associated with bringing about a behavioural or habitual change - this does not reflect the aims and activities of a pre-travel consultation. It is therefore argued that a 'one size fits all' approach to consultations does not facilitate optimal care, and there is a need for practitioners to recognise consciously the different purposes and aims of encounters in general practice, to *adopt* an appropriate model, *select* a sub-set of skills and *adapt* the interaction and interventions to meet the needs of the individual.

The assessment phase of pre-travel consultations appears to be particularly amenable to improvement and development. The literature on consultations shares one commonality, which is the importance of the assessment phase (variously called history-taking, examination, information-gathering in the literature). There is agreement that this is the cornerstone of the practitioner-patient encounter, without which any intervention, advice, or plan of care is likely to be unsatisfactory. This appears to be transferable to pre-travel health consultations too. The AV recordings of consultations showed the assessments to be fragmented, characterised by closed questions from the nurse, brief responses from the traveller, and immediate decisions or advice from the nurse that did not, and could not be guided by a comprehensive understanding of the traveller's risks

because of the incomplete nature of the assessment. A key feature of any new model would therefore be to re-focus the assessment and other phases of the consultation.

Secondly, it is argued that a new model is required to assist general practice nurses because of the many challenges they currently face in delivering pre-travel health care. The literature review indicated that although communication skills were included in pre- and post-registration educational provision, the 'big picture' view of consultation models was rarely addressed. Furthermore, there was evidence that nurses copied the medical approach to consultations, thereby perpetuating the use of doctor-sick patient styles. Despite their lack of training specific to consultations, many nurses are taking on more types of work in general practice without, as Bond *et al* (1999:1065) put it, "...*there being any established professional standards that they must achieve before doing so*".

Nurses face challenges other than the lack of consultation training. The context in which they work places them at the centre of competing demands. As employees, their clinical practice is subject to factors such as the number of available appointments, the time 'allowed' for consultations, the practice culture of whether multiple people are booked into single appointments, interruptions to consultations, the roles of others such as receptionists and manager, and attitudes to finance and the achievement of QOF targets. When these are tightly managed within the practice they appear to act as drivers towards the minimal and medical style of consultation identified through the research data. The lack of co-ordinated teamwork identified in 5.3.3 is detrimental to the quality of pre-travel healthcare, and provides another reason for improving the model of consultation. It is therefore included in the prototype model in section 7.4.

A competing demand is centred on nursing attempts to 'do everything' for the traveller. Nurses wanted to give a good service, and factors such as maintaining professional practice standards and providing comprehensive pre-travel health care were aimed for. Together with a fear of litigation or complaint, these were drivers towards the 'kitchen sink' style of consultation. The tensions between these drivers towards a minimal, medical style, or an all-encompassing style were stressful as the nurses tried to satisfy and balance the needs of the practice, the traveller, and their own sense of professionalism and satisfaction, through the medium of the consultation.

The needs of travellers provide a third reason why a new model is necessary. There was no evidence that existing M and M and kitchen sink models worked. Travellers were passive, uncomplaining, and tended to 'like' their nurse. If audited, this is likely to reflect in figures showing high levels of satisfaction and low levels of complaint – both metrics could be used to argue that pre-travel health consultations are successful. Yet the bricolage design enables a deeper understanding of the phenomenon of the pre-travel health consultation. Whereas a quantitative approach could demonstrate the 'black box' analysis of measuring inputs (e.g. nursing time) and outputs (such as patient satisfaction or the absence of complaints), the triangulation of qualitative methods is better placed to reveal what goes on within the 'black box' of the consultation, and begins an understanding of outcomes beyond immediate measures. For instance, interview evidence indicated that the information travellers were able to recall or use from the consultation was limited, and tangible resources such as leaflets and websites were not used. A new model therefore needs to address the educational approach taken during consultations. This includes ways to recognise and respect existing knowledge and beliefs held by travellers, the dynamics between couples and

families when health and illness are discussed, and ways in which person-centredness and empowerment can be fostered – concepts which have been identified in other studies relating to practitioner-person participation (Kendall, 1991; Roter and Hall, 2006).

The final reason for a new model comes with the need to recognise the wider context in which the consultation occurs. Wider still than the tensions nurses face from the context of the practice and their perceptions of travellers' needs, the consultation provides a prism of other drivers within health care. The emphasis of this study has indeed been the consultation, but it is recognised that it does not occur within a social vacuum, and that factors external to the practice exert an influence upon it.

High-profile NHS disasters, a perceived decline in standards of care, a better informed public, rising complaints and litigation, technological advances, and demographic changes in society and among health care workers were all cited in the literature review as drivers towards more awareness about quality in health care. Despite the lack of clarity about the definition of quality in government health policy, authors such as Greenhalgh and Eversley (1999) promote the importance of understanding the patient's perspective, and Donabedian's *Structures, Processes, Outcomes* framework is widely accepted as an holistic way of evaluating and planning care.

Set against the background of a rising demand for quality health care, the pre-travel consultation appears to be failing to meet some key objectives. The consultations in this study were not person-centred, nor supported by standardised education, guidance or policy. There is a lack of knowledge about

the costs, benefits or effectiveness, and generally little research into how to conduct pre-travel consultations. The service is growing *ad hoc*, but without strategic planning. Travel health care is not a commissioned activity, e.g. by PCTs. The demand is from the travelling members of the public, who have to be in a position to know that the service exists in order to request it. General practices provide it reactively, awaiting people to come to them.

Without any proactive ethos within general practice, the sectors of UK society who are not familiar with a concept of preventive health care, often do not know that a pre-travel health service exists, or is applicable to them. Groups such as those visiting friends and relations abroad are known as VFRs, and in the UK they are mainly people returning temporarily to India and West Africa. They bear a disproportionately large amount of travel-related infections, particularly malaria, hepatitis A and typhoid as a result of not engaging with pre-travel health services (HPA, 2008b). Although the majority of pre-travel health care occurs in general practice, there are external providers too. Occupational health departments, private clinics, public school nurses, supermarket and high street pharmacy chains are venturing into the market, furthering the case for standardised and improved practice.

In the light of these wider concepts of quality, standardisation, effectiveness and equity, it is argued that a new model is required, focused on the pre-travel health consultation but with regard to these concepts. A model that represents the middle ground, which could satisfy all parties and achieve better outcomes, was therefore designed using the findings from the literature and analysis of the research undertaken for this study. This model is presented in section 7.4.

7.4 The prototype model

7.4.1 Introducing the model

As key concepts for possible inclusion in a new model emerged from methods one to five, they were recorded and used with the method six focus group nurses to elicit reactions, and to use the dynamics of group discussion to develop further ideas for a pragmatic model. The result is PRE-TRAVEL, a prototype consultation model requiring further testing and refinement in practice.

PRE-TRAVEL is an acronym standing for **P**erson-centred **R**isk assessment and **E**mpowerment – **T**ailor **R**isk **A**dvice, **V**accines and malaria prophylaxis, **E**nable **L**earning.

These key words summarise the tasks and their order within the consultation, whilst encapsulating the values and the aims that underpin them.

PRE is a reminder of the importance of person-centredness, that a comprehensive risk assessment needs to be completed early in the consultation before any safe or meaningful co-decisions can be made, and that travellers should be empowered from the start to play an active part, for instance, by asking them more open questions about what they want and need from the consultation, and their current level of knowledge.

TRAVEL is a reminder that individualised advice can only come after a full assessment that both parties have contributed to; that appropriate decisions on interventions such as vaccines and malaria chemoprophylaxis are also dependent upon an accurate assessment. The traveller can be enabled to learn about further means of protecting or managing their health abroad in different ways. Methods

need to be positive and relevant, and do not require lengthy verbal exposition on nurse-selected topics.

The PRE-TRAVEL model has three intended purposes: to guide individual practitioners in reflecting upon and shaping their pre-travel consultations; to be a framework for educators to use when teaching about travel health; and to contribute to the evaluation of the quality of pre-travel health care. Table 16 uses Donabedian's framework to present the main features of the structures and processes of the PRE-TRAVEL consultation, phase by phase.

Table 16: Features of the PRE-TRAVEL model.

Phases of the consultation	Structures	Processes
Before the consultation	<ol style="list-style-type: none"> 1. There is a practice policy to manage requests for travel consultations when no appointments are available. 2. The nurse accesses education on travel health and patient education. 3. Templates are accessible and user-friendly. 4. Flexible consultation time; average 20 minutes. 5. An appropriately equipped room. 	<ol style="list-style-type: none"> 1. Awareness of travel health care is proactively promoted to the practice population. 2. Practice staff roles in travel health are clear and the division of labour is minimised.
Opening	<ol style="list-style-type: none"> 6. Inclusive seating arrangements. 	<ol style="list-style-type: none"> 3. Nurse introduces self and builds rapport. 4. Management of multiple attendees.
Assessment	<ol style="list-style-type: none"> 7. Traveller is involved in completing a template. 8. Computer screen swivels to be visible to nurse only, or nurse and traveller. 9. Fast Internet access available. 10. Evidence-based resources available and up to date. 	<ol style="list-style-type: none"> 5. Use of open questions: <i>Tell me about your trip; What health risks concern you?; How have you managed x before?</i> 6. Agenda is jointly agreed. 7. Full assessment of person and trip is made before interventions or advice are provided.
Interventions	<ol style="list-style-type: none"> 11. Pricing policy is clear to traveller before decisions are made. 12. Vaccines stocked according to clinical not financial need. 13. Storage and administration of products is in accordance with best practice. 14. PGDs and other routes to safe, legal prescribing or administration of products are in place. 	<ol style="list-style-type: none"> 8. Accurate advice on benefits and drawbacks of having the intervention/not having the intervention, are discussed. 9. Framing of risks is evidence-based. 10. Decisions are jointly made. 11. Informed consent achieved.
Counselling	<ol style="list-style-type: none"> 15. Leaflets have content relevant and accessible to the individual, are well produced, and actively shared with the traveller. 16. A written care plan is provided if appropriate. 	<ol style="list-style-type: none"> 12. Framing of risks is evidence-based and appropriate to the traveller. 13. Three key risks/main points identified. 14. Messages contain positive actions. 15. The traveller has opportunities to ask questions.
Other	<ol style="list-style-type: none"> 17. There is a practice policy to minimise interruptions to consultations. 	<ol style="list-style-type: none"> 16. The nurse rejects all but essential/urgent interruptions.
Closing	<ol style="list-style-type: none"> 18. The traveller is clear about how to access any further care or information. 	<ol style="list-style-type: none"> 17. The nurse checks for understanding and further questions from the traveller; summarises and safety nets the consultation.
After the consultation		<ol style="list-style-type: none"> 18. Record keeping adheres to NMC guidance.

7.4.2 An explanation of the model

Framework of the model

The two key categories of *Structures* and *Processes* in the PRE-TRAVEL model came from Donabedian's framework because this had been established as the most comprehensive model of quality during the literature review, and had proved so helpful in organising the data throughout the research process. The RIAS tool used during the analysis of the AV recordings had contributed an additional dimension by which the data could be understood – the phases of the consultation. The barcoded depictions of consultations in Figure 9 helped to highlight the disorganised, iterative and partial nature of proceedings, and offered potential explanations of some of the difficulties and errors that were occurring in practice. Therefore this new model also incorporates the phases of the consultation to help make visible the structures, processes and temporal dimension or sequencing of a good quality pre-travel consultation.

To justify inclusion in the model, each issue had been identified in the research findings as a difficulty or a problem for the travellers and nurses, or has been found to contravene established best practice. For example, most nurses found consultation length a problem, and for some this was due to a perceived need to "...cover everything" (M6:G1:N3:62). Yet when nurses did 'cover everything', taking up to 46 minutes in some cases, there was no evidence that those travellers had greater recall or utilisation of the content of their consultation than recipients of shorter consultations. Overlaying this was the finding that assessments were incomplete and iterative. Therefore the model has the potential to address these through the inclusion of structures

such as education on travel health and patient education; an average of 20 minutes for a consultation time; and a full assessment of the person and trip made before the provision of interventions or advice.

Having justified the issues using findings from the research, each issue was then considered in the light of evidence from the literature appertaining to it. Validity of the model is strengthened if there is independent evidence to support the inclusion of an issue. For instance, problems of under- or over-vaccinating were identified as a patient safety issue from the research (recordings of consultations and focus groups), and the audits of resources revealed that nurse participants did not consistently use evidence-based sources to guide their decisions on vaccination. Therefore the structures and processes relating to interventions in the model are all supported by key literature such as the Green Book (Immunisation Against Infectious Disease (Salisbury et al, 2006), and TRAVAX (Health Protection Scotland, 2009b).

The focus of the research has been to describe current practice in nurse-led pre-travel health consultations. This elicited problems such as safety issues; the partial nature of assessments and interventions; the iterative, disorganised flow of the consultation from one phase to another; and the lack of traveller involvement or empowerment, which justify consideration of a new model of consultation. The model presented in Table 16 is not a finished entity however, but a bridge between 'what' currently happens in practice, described as a result of the research, and 'how' pre-travel health care could be better delivered. The 'how' elements require further research, and the model needs testing: two tasks for a post-doctoral development of service provision.

Although some aspects of 'how' to deliver travel health require the training and education of individuals, for instance in managing consultations, educating patients and increasing travel health knowledge; other aspects might require wider regional or societal approaches. An example of this is the current inequitable access to pre-travel health care for some groups such as VFRs, and the reactive rather than proactive nature of current general practice-led travel health provision. 'How' to maintain and promote the health of travellers and deliver services is therefore much larger than the scope of this study allows, and it warrants further, different research approaches. The contribution of this study is that it describes current practice and is facilitating wider debate about travel health services.

There is also an example of the findings from this research being able to justify a recommendation in the literature. The RCN state that 20 minutes should be allocated to pre-travel health consultations, guidance that emerged from a consensus of expert opinion in the RCN Travel Health Forum (2005, 2007) because no published research evidence appeared to be available. Based on the findings from this study – that consultations do not make optimum use of time due to their fragmented organisation and excessive verbal exposition – 20 minutes appears to be an accurate average if consultations apply the PRE-TRAVEL model of a comprehensive risk assessment, interventions, and person-centred prioritisation of risks using appropriate adult educational approaches backed up with more individualised use of written and other resources.

Although the attempts by participants to cram content into the consultation have been critiqued because they are not accompanied by appropriate implementation processes (the 'what' versus 'how' theme), it should be acknowledged that content remains an essential element of the pre-travel consultation. The factors identified by experts in the documentary analysis of Chapter 4 remain valid but need to be selectively used by nurses to prioritise interventions based on a complete assessment of the traveller, including their existing knowledge. To this end, Structure 3 in the PRE-TRAVEL model recommends the use of templates to ensure a comprehensive assessment and to avoid the omissions noted in the AV data. Structures 15 and 16 support the use of effectively designed media to help deliver content in non-verbal ways, whereas Processes 5, 6 and 7 help to move the consultation in a more person-centred direction than was observed in the AV recordings. Content should be prioritised (Process 13), and delivered in a more meaningful way (Process 14).

In these ways the PRE-TRAVEL model is designed to address the practical issues faced by stakeholders and to enable practitioners to improve the quality of care that is currently offered. As such, the issues it addresses are amenable to audit. The conversion of the model into audit standards and criteria is another post-doctoral aim, as ideally, the model should be field tested first and further developments made in conjunction with organisations that are beginning to develop standard statements and competencies for the field of travel medicine (RCN, 2007; RCPS (Glasgow), 2008).

7.5 Discussion

The strengths, weaknesses, opportunities and threats to the use of the PRE-TRAVEL model of consultation are now appraised with reference to the research design employed to create it, and using the SWOT analysis framework (Dey and Hariharan, 2008).

7.5.1 Strengths

The strengths of the PRE-TRAVEL model lie in that it has been purposely designed for a specific type of consultation. As a comparatively new specialism, preventive travel health care has grown out of demand from travellers, and not from an existing evidence base or planned intervention. In the UK it is largely delegated to general practice nurses, and these factors contribute to it having to 'borrow' consultation styles from established knowledge, mainly relating to doctor-sick patient health care. This new model therefore focuses attention onto specific and unique needs in pre-travel health care, and how service provision could be enhanced.

Much of the existing information and literature on travel covers 'what' should be addressed, and not 'how' to do it, or 'why' it should be covered. The research undertaken for this study goes some way to contribute to these different perspectives, and, given the comparative lack of research – particularly qualitative research – the resultant PRE-TRAVEL model is a pragmatic offering in a sparse field of evidence-based practice.

That pragmatism is further emphasised in the model design and the purposes for which it can be used. The acronym PRE-TRAVEL (**P**erson-centred **R**isk

assessment and **E**mpowerment – **T**ailor **R**isk **A**dvice, **V**accines and malaria prophylaxis, **E**nable **L**earning), is pertinent and easy to break down into key components that sequentially follow the order of tasks to be undertaken in the consultation. It provides a useful *aide mémoire* for busy nurses. The model depicted in Table 16 contains and reflects these components. This makes it easy to deconstruct the acronym and table to examine the components, for instance for educational use, or for creating an audit proforma.

Donabedian's framework (1990, 2003) is acknowledged as being the main architecture informing the development of the PRE-TRAVEL model, which draws on the long and widely accepted use of his framework to organise the many different elements that are needed to improve the quality of pre-travel consultations. Its use within the PRE-TRAVEL model brings in to alignment factors that are specific to travel health, such as its specialist body of knowledge; but also some general factors that apply in many health care situations such as record keeping or health education. Donabedian's work has provided a cohesive and unifying theme throughout the thesis, demonstrating what a flexible and adaptable tool the *Structures, Processes and Outcomes* framework is. However, it is perhaps time to re-evaluate the interpretation of the outcomes element, which Donabedian originally intended to mean actual changes in the health status of a person or population. It was posited earlier in the thesis that such a complex judgement is difficult to arrive at, but the term *outcomes* does offer scope if a broader definition is applied, allowing it to refer to outputs as smaller measurements and indicators of quality, rather than large-scale epidemiological changes in health status of the population in question. For instance, this study does not permit assessment of a major outcome such as 'malaria deaths are

reduced if travellers attend a pre-travel consultation'. However, it does address factors that promote or deter high quality malarial-prevention advice and prescribing.

Donabedian's framework was not the only contributor to the strength of the PRE-TRAVEL model: the inclusion of consultation phases adds the dimension of time and sequencing to the model. RIAS triggered the development of a visual format of these phases which allowed analysis of the crucial role that assessment plays in contributing to safe, effective service delivery. This temporal element adds order to the structures and processes that are used, giving a '3D' effect to the new model.

The literature review in Chapter 2 (p.59) identified Donabedian's *Seven Pillars of Quality* (1990) as a major influence in the quality movement, and Chapters 5 and 6 illustrate ways in which current pre-travel health consultations in general practice might not meet what these 'pillars' represent, for instance, with regard to efficacy, effectiveness, efficiency, or optimality. Another explanation of the PRE-TRAVEL model is that it attempts to reflect these attributes by addressing the factors that confound achievement of these pillars (such as the structure of time, and the process of health education).

A new model will only be of use if it is better than what previously existed, and although PRE-TRAVEL is subject to post-doctoral testing, its ability to translate into audit criteria means that some degree of pre- and post-implementation testing is feasible, and will contribute towards its evaluation.

Two research questions arose in the early stages of this study. Whereas Chapters 4, 5 and 6 answered the first research question about what currently comprises the nurse-led pre-travel health consultation, this model – created from those findings – answers the second question about what elements ought to be incorporated into a consultation model for pre-travel health. The model retains the elements that worked well, such as the ability of nurses to build rapport, but it primarily addresses the elements that were problematic, relating to safety, effectiveness and achieving optimal quality of care.

The issues of patient and practitioner safety are rarely referred to in travel health literature, but the findings from this research, presented at the International Society of Travel Medicine conference in 2009, stimulated much interest (Willcox *et al*, 2009b). The PRE-TRAVEL model incorporates factors that promote safe practice or safeguard against errors, as an essential and integral part of the design.

7.5.2 Weaknesses

The PRE-TRAVEL model is focused upon the phenomenon of the consultation and its immediate concerns. As discussed previously, the consultation does not sit in isolation, but occurs within the context of general practice and is subject to the drivers and constraints that operate within primary care. Issues such as appointment availability, consultation time, and access to education are partly dependent upon the ability of the nurse to negotiate, and will be influenced by the prevailing culture within individual practices.

Secondly, the focus on the micro level of the consultation means that the wider

patient (traveller) pathway somewhat fades into the background. Growing attention is now given to the entirety of a person's health care journey, especially in quality improvement circles, and the need for co-ordinated services is recognised (Darzi, 2008). Patient and care pathways are required to map and facilitate joined-up, seamless care experiences (Johnson, 2001). For travellers, a pathway is likely to be less complicated than for example, a person whose cancer journey might take them from general practice through surgical and oncology departments, and onto rehabilitation, follow-up or palliative services delivered in home or community settings. However, it is argued that a potential travel-related care pathway *does* exist because travellers do not arrive as 'blank slates', but have acquired knowledge and sought advice from sources other than the consultation, following which their health has to be maintained when abroad, risks mitigated and illnesses managed, and sometimes medical care accessed while away, or upon their return home (see Appendix 11). Freedman *et al* (2006) estimate that eight per cent of travellers need medical intervention, and unless a returned traveller presents to the health services unwell, post-travel screening is not a well-developed concept in the UK, despite a growing recognition of need (Clerinx and Van Gompel, 2008).

The argument for a comprehensive community-based travel health pathway encompassing pre-, during and post-travel aspects, is not currently a feature in the field of travel health, but it is arguably a desirable future development. For instance, one or more practices within a PCT could develop a more specialist and comprehensive travel health service on behalf of other practices. When this idea was raised with focus group participants, the views in favour of it were based on a vision for a quality, comprehensive service for travellers, and that general practice

could simultaneously be relieved of an onerous workload. Views against it were based on patient safety concerns – namely that records would not be available to the specialist centre staff.

For the moment, the general practice approach to travel health is to stop at pre-travel provision. The existence of this wider context of travellers' health care is at least acknowledged as important in this study, which is one reason why diaries and interviews were employed as methods to track their health issues during and after travel. In defence of the model being focused on the pre-travel consultation, is the argument that the nature of PhD research is to examine a phenomenon in-depth, and to recognise the limitations and scope of a single-handed research project.

7.5.3 Opportunities

The next few years offer an opportune time for introducing a consultation model specific to pre-travel health. A groundswell of interest in 'how to' provide services appears to be developing in the field of travel health, as it has in other specialisms. For instance, the concept of the expert patient and optimal ways to educate patients are gaining ground in the management of long-term conditions (DH, 2007b). The concept of concordance is replacing that of compliance in prescribing practice (Latter *et al*, 2007), and recognition of the power – and difficulties – of making health care more person-centred occupies practitioners and academics alike (Innes *et al*, 2006; Charlton, 2007). In travel health, this interest is evidenced in several ways. The work that some organisations are undertaking in improving service provision has been mentioned (RCN, 2007; RCPS (Glasgow), 2008); the scientific committee of the ISTM approved more

process-related abstracts than was previously the case for the biennial international conference in 2009 (ISTM, 2009c); and the proceedings of other organisations such as the BTHA reflect a widening approach to travel health than the tropical diseases approach that has previously dominated travel medicine. Educational opportunities are also progressing. The RCPS (Glasgow) Faculty of Travel Medicine runs post-registration, academically accredited courses. The focus group nurses discussed their limited desire to undertake demanding academic study, and practice nursing work is so broad that it is possible but not practical to achieve a plethora of specialist diplomas. However, for those nurses with a special interest in travel health, distance-learning options now exist. Shorter courses, often run by NHS hospitals of tropical medicine, are also available as attendance and online options. PCTs and Local Health Boards' (LHBs) involvement with training and updates on travel health varies; and some independent training companies and vaccine manufacturers also provide study events. ABPI guidelines (2006) have ensured that the content of sessions remains non-promotional, although the choices of topics are frequently favourable to the interests of the pharmaceutical industry, with an emphasis on vaccine-preventable infectious diseases. Nevertheless, such events rely on practising clinicians to teach the sessions, opening a window of opportunity to address consultation issues and models of care.

Opportunities to publish have increased too, with specialist journals of the ISTM, BTHA, RCPS (Glasgow) and others accepting papers on the practice of travel health consultations; newsletters such as those of the ISTM and RCN; and nursing and specific practice nursing journals also feature travel health articles.

7.5.4 Threats

However, opportunities for dissemination of research outputs such as the PRE-TRAVEL consultation model, do not automatically result in changes at practice level. Getting research into practice is widely aired as a torpid and frustrating business, as is change management, of which varying degrees will be necessary for practices (Thompson *et al*, 2005). Travel health is often a low priority for general practice as it does not attract QOF points. Practice nurses face many competing topics for their clinical, educational and management time. However, the focus group participants did identify reasons that could mitigate these difficulties, in a somewhat 'stick and carrot' approach. 'Sticks' included the fear of doing something wrong, not wanting to be disciplined, or face complaints and litigation. Threats to their credibility were also recognised as arising out of varying, non-standardised practice. 'Carrots' included having a genuine interest in travel health, and in maintaining professional standards. Job satisfaction was achieved through the variety that travel health consultations offered, and the rushed or problematic ones left participants wanting to improve matters. Together, these negative and positive drivers could effect changes in practice.

The model is designed around the needs of travellers and practice nurses because the majority of pre-travel health care is currently delivered in general practice. However, any assumption that this will continue is open to challenge because of the changing landscape of health care in the UK. Firstly, other practitioners, albeit in small numbers, are engaged in travel health care. Secondly, the number of private providers of pre-travel health care appears to be increasing, which also influences the locations of provision. For instance, pharmacists now form a special interest group within the ISTM, and are developing their role in

travel health (Goodyer, 2004). Pharmacy chains such as Superdrug now host travel health services (Superdrug, 2009), and third sector organisations such as the charity Interhealth (2009) work with specific segments of travellers, in this case, aid and humanitarian workers. Drivers affecting NHS general practice, such as the lack of appointment capacity, and the low prioritisation of travel health, could steer pre-travel health provision into the private sector. A consultation model that is perceived to be only for general practice nurses is unlikely to be adopted by other practitioners, although it is argued that the PRE-TRAVEL model, being based on the needs of travellers and supported by established standards of best practice, is flexible enough to be adapted for use by clinicians other than nurses. The financial needs within commercial providers could favour the minimal and medical model of consultation over the more holistic PRE-TRAVEL model. Mitigating against this are the organisations previously identified, who are working to produce standards within travel health (RCN, 2007; RCPS (Glasgow), 2008).

7.6 Conclusions

Practitioners employ consultation models, explicitly or otherwise. For the practice nurse participants in this study, their use was implicit, and the nurses in the AV recordings adopted styles such as the medical and minimal or the kitchen sink model. Focus group discussions validated these descriptions, going on to reveal the reasons – particularly the challenges that pre-travel appointments pose for practice nurses. The PRE-TRAVEL model grew out of identifying possible solutions to these difficulties and challenges, and from the need for more equitable and effective care for travellers. As a prototype it requires field-testing and refining. If that is successful, its implementation and adoption in practice will still face obstacles. However, it is envisaged that PRE-TRAVEL is flexible enough

to be adapted for use by practitioners other than nurses, and that the growing emphasis on quality within health care, and standards, competencies and outcome metrics within the field of travel health, are powerful factors to support the timely introduction of a new model of consultation.

Chapter 8: Conclusions

8.1 Introduction

This study used six methods to follow the 'journey' of official guidance and travellers through pre-travel health consultations. It started by assessing experts' views on what should be addressed; then it described how general practice nurses utilised that guidance in practice, and how travellers used or rejected the contents of their consultation while abroad. The need for further understanding of the phenomenon of the pre-travel health consultation arose from both empirical evidence and anecdotal experience, and from observations within UK general practice. This need is described in Chapter 1, *Introduction*, and is reflected in the thesis title, *Nurse-led Pre-travel Health Consultations: Evaluating Current Practice and Developing a New Model*.

In Chapter 2 the literature review confirmed foreign travel as an established and growing feature of UK society. It identified the challenges travel presents to individual and public health, to which services have reacted to demand in an *ad hoc* way: increasing provision but without the benefit of strategic planning. Many of the threats to health posed by foreign travel are preventable or could be minimised, and the responsibility for achieving these aims has largely fallen upon nurses working in general practice. This brought the focus on to issues of quality in healthcare, and the particular medium of the consultation.

In order to understand the phenomenon of the pre-travel health consultation, Chapter 3, *Methodology*, outlined a bricolage design of six methods to identify Donabedian's framework of *Structures, Processes, Outcomes* associated with these consultations. The thesis examined these from the perspectives of three

key stakeholders – experts, practice nurses and travellers.

Chapter 4 addressed the contribution experts make to the body of knowledge about what should be contained in a pre-travel health consultation. The key findings were that expert advice was mainly based on consensus opinions of doctors, and lacked research evidence because travel health is a new discipline. Input to these documents from nurses and other professions was negligible. This emphasis on medicine meant the focus was on interventions such as vaccines, and an ever-increasing list of risks to ‘tell’ the traveller about. Techniques about how to deliver services, or outcome evaluation, were not included; however, expert advice on the importance of assessing the traveller was emphasised, and it was possible to synthesise eight categories of risk, which helped shape subsequent research methods and analysis.

Chapter 5 reported on how practice nurses put that knowledge into operation. The key findings were that the time available for consultations posed a major challenge to nurses, and together with some challenges in organising the consultation, led to partial and iterative assessment phases, and counselling interventions that were not congruent with known best practice in patient education. Two distinct models of consultation were observed – a medical and minimalist style, and one characterised by the nurse verbalising large quantities of information and instructions towards the traveller. Three themes made their first emergence from this phase: the prominence of the role of the woman in managing family health; the consequences of a division of labour in the consultation; and the impact of consultation processes on safety.

Chapter 6 analysed how travellers used or discarded the contents of their

consultations. The key findings were that travellers were able to recall, or use, very little of what was imparted during their consultations, but far from being the 'blank slate' nurses assumed them to be, travellers usually managed their health appropriately, and had far more knowledge than nurses recognised. Additionally, they identified travel as a health-giving activity for various reasons, and not the negative, risk-laden health experience framed for them by nurses.

In Chapter 7 a synthesis of the literature and the research findings underpinned the design of a new model of consultation – PRE-TRAVEL. Donabedian's *Structures, Processes, Outcomes* framework, used throughout the study, was employed once more to organise the model's content. Each element earned a place within it by virtue of having been a challenge to practitioners, travellers, or to established concepts of what constitutes quality health care. The PRE-TRAVEL model requires testing, but would appear to offer a useful contribution to travel health theory and practice.

8.2 Re-visiting the research questions

Two research questions emerged from the initial review of the literature, identifying the need to know about how consultations are conducted, and how they might be improved:

1. What currently comprises the nurse-led pre-travel health consultation?

Subsidiary questions include:

a. What structures, processes and outcomes are currently associated with the pre-travel health consultation?

b. How appropriate are the interventions, when mapped against the 'expert opinion' and guidance available in the literature?

- c. Do nurses consciously adopt an existing model of consultation?
 - d. How do travellers use the education, information, advice and interventions gained from the consultation?
2. What elements ought to be incorporated into a consultation model for pre-travel health?

Subsidiary questions include:

- a. Is a new model needed, and what would be its purpose?
- b. How could a core model be made flexible enough to adapt to the needs of different travellers?
- c. How can the views of different stakeholders (nurse, traveller and expert), be synthesised with evidence of best practice from models of consultation, health promotion, communication and education?

This study answered the first question by drawing on participants' opinions that pre-travel consultations are an interesting facet of their work offering variety, and often, a sense of job satisfaction. However, they also described the challenges and difficulties these consultations pose, due to the practice constraints such as restricted appointment times and limited access to education, or to the clinical and communication complexities that have to be managed within the actual consultation.

1a: What structures, processes and outcomes are currently associated with the pre-travel health consultation?

In terms of Donabedian's framework, two of the processes appeared to be in particular need of attention – the risk assessment phase of the consultation and the way in which patient education was approached. One outcome was that

travellers did not seem to employ much of the nurses' advice, but instead were far more self-sufficient in terms of their ability to manage their own health than is generally assumed in practice or in the literature.

1b: How appropriate are the interventions, when mapped against the 'expert opinion' and guidance available in the literature?

Much expert guidance was translated by nurses into a verbal exposition to travellers, although they had often omitted to assess or prioritise risks. This expert guidance, based as it is on broad but often incomplete epidemiological data and consensus opinion, is also open to questions about the degree to which it should, or can be, interpreted for each individual traveller.

1c: Do nurses consciously adopt an existing model of consultation?

Nurses did not consciously adopt a model of consultation, but implicit ones did exist. The kitchen sink model was partly an attempt by nurses to deliver *everything* expert guidance cited as a risk to travellers, done in the belief that it protected travellers' health, and protected nurses from litigation if the traveller *did* fall ill. In contrast the medical and minimal style of consultation was an attempt to work within short consultation times, handing over leaflets or website recommendations to save discussion time.

1d: How do travellers use the education, information, advice and interventions gained from their consultation?

Overall, the result was that travellers were passive recipients of didactic information and advice, as distinct from education, and were not empowered to take an active part in the consultation.

2: What elements ought to be incorporated into a consultation model for pre-travel health?

In answer to the second research question, this description of current practice was able to lead to the development of a new consultation model. The findings indicated the need for a new model, the purpose of which was to improve the quality of pre-travel health care. It had to address the aspects of the consultation that nurses found challenging, and thereby to improve the engagement with travellers, risk assessment and techniques of patient education. Addressing the apparent lack of general practice teamwork in travel health would be another factor. The consultation should become more person-centred and able to assess and meet individual needs. To achieve this, travel medicine needs to open the field to a wider range of expertise than tropical and infectious disease specialists – in particular, interdisciplinary collaboration with researchers in the fields of educational and behavioural psychology and communication in health care could lead to a better understanding of the phenomena of both the pre-travel health consultation and the British citizen as a traveller abroad.

8.3 Limitations of the study

The size of this study is an obvious limitation because the findings from such a small-scale research project cannot be generalised to all practice nurses, or other practitioners and settings. However, the nature of a single-handed PhD was recognised from the start, and an early intention was that any findings should be made available for practitioners to consider and reflect upon whether there was any applicability or relevance to their practice. The findings are therefore offered as a means of widening awareness and discussion about how pre-travel consultations are delivered, rather than the emphasis being on what should be

covered, as is the feature of much previous research. The limited size of the study therefore still offers the possibility of transferability of the findings.

A potential limitation is the longevity of this study. Since its conception, new competencies have been produced by UK travel health nurses, which if the study were to be commenced now, might influence the design of the study (RCN, 2007). This seems to be an unavoidable limitation of a part-time PhD, but new publications such as these can contribute to the design of post-doctoral testing of the PRE-TRAVEL model. Findings from this study support the RCN statement that 20 minutes should be allowed for most pre-travel consultations. However, this study offers a new depth of understanding to brief references to consultation and educational skills, and has much to contribute to concepts of patient-centredness and the traveller's journey that are not explicit within the RCN guidance.

Methodologically, using six forms of data collection risked producing an unwieldy amount of data leading to a broad rather than a deep investigation. Again, this was realised at the research design stage, and a decision was taken to follow the entirety of the consultation's evolution from the production of expert guidance, through the actual consultation, to the destination where travellers used or discarded its contents. This was balanced by some methods being much more in depth than others – for instance, AV recordings of the consultations. RIAS coding produced much data that could be combined in different ways, and offers the potential for secondary analysis. Post-doctoral work could include for instance, discourse analysis to further illuminate issues such as gender differences, ideologies and power relationships in travel-related clinical encounters. In contrast to the AV method the diaries, despite being designed to be easily completed and

fulfilling the intention of acting as an *aide mémoire* to travellers, had the lowest response rate and contributed only a little data which was more easily gained through the interviews with travellers. They did contribute validation opportunities however, through data collected during travel, and the possibility of a more sensitive introduction to the interviews with travellers, based on knowledge about what had actually happened to them whilst travelling. The literature review on health diaries as a research method warned of their limitations. With the benefit of hindsight, this method would not be included if the same study were to be repeated again.

Each method posed its own risks such as sampling bias, drawbacks inherent to that method, and issues of reliability and validity in the choice of data collection tool and analytical frameworks. These are acknowledged in the methodology chapter, and in the methodology and discussion sections of chapters covering the contributions of experts, nurses and travellers. Opportunities to minimise these limitations were sought, the main one being the choice of a bricolage design to enable triangulation.

Conceptually, Donabedian's framework served well, except perhaps for the outcomes aspect. There is a debate about the differences between outputs and outcomes, but Donabedian was clear that outcomes should refer to actual health gains, and a limitation of this study is that it produced findings that were more about outputs. For example, the findings revealed that risk assessment of a traveller's existing health status and chronic conditions was rarely made, even though they are a major cause of morbidity and mortality in UK citizens abroad. It would be more revealing if a study tested the assumption that pre-travel risk

identification and intervention actually altered morbidity and mortality outcomes for travellers abroad. However, the size and design of this study did not lend itself to statistical data collection, for which a large study using, for example, epidemiological and mathematical modelling research techniques might be more appropriate. This may be possible in the future, when PRE-TRAVEL can be tested within the context of a randomised controlled trial. For now, it has been more important to gain in-depth understanding about how to provide pre-travel health consultations, in order to assess the impact of travellers' pre-existing conditions on their ability to travel safely.

8.4 Strengths and contributions of the study

The qualitative nature of this study adds a dimension to the field of travel health that is currently scarce. Much research is funded by pharmaceutical companies and is focused on infectious disease prevention and treatment, while many studies on the attitudes or knowledge of travellers are quantitative surveys. All have a place, and this study both contrasts with and complements existing work to add to the body of knowledge in the comparatively new field of travel health. The focus on *how* services are delivered offers a different emphasis from the current '*what should be done*' approach.

The bricolage design appears to be unique because the choice, combination and application of these methods to pre-travel health care has not been found elsewhere. The concept of following the components of the consultation from their origins with experts, through being put into practice, and the degree to which they were utilised by travellers, also appears to be an original contribution that accords well with an holistic philosophy, and with concepts of total quality management.

Bricolage attenuated some of the limitations of the study by offering triangulation as an aid to validity. For instance, the AV recordings showed nurses leaving the room to fetch and prepare vaccines, which was initially interpreted as poor management of the environment and consultation time. However, the focus group participants revealed that some nurses left the room for stress management and patient safety reasons, because it was so hard to 'think straight' and focus on the vaccines when travellers – especially multiple attendees – were talking.

The decision to use Donabedian's *Structures, Processes, Outcomes* framework is supported by its sheer versatility. It provided an extremely useful conceptual framework for the research, for designing data collection tools and analytical processes, and it helped to organise the presentation of findings within chapters of this thesis. Developed at a time when the concept of clinical governance had not yet been realised, it has withstood a plethora of attempts at creating new models relating to quality in health care to replace it; to offer a still sound, holistic, and pragmatic explanatory framework. It is therefore integral to the new PRE-TRAVEL model of consultation.

One relatively small and specific methodological contribution this study has made is to develop a simple technique of barcoding consultations to show the phases in sequential order. The idea was inspired by RIAS but lacked a pragmatic technique to achieve a visual representation of the consultation. It is intended as a tool to aid individual reflection on practice, for teaching, and to open discussions on consultation dynamics in travel health. Barcoding appears to be a technique that could be used in other types of consultation, and comparative studies could be a useful area of further research. The technique will be used in evaluation of the

PRE-TRAVEL consultation model in practice. A paper on barcoding was accepted for presentation at the International Society of Travel Medicine conference in 2009, creating interest in the technique, which is encouraging for its future development (Willcox *et al*, 2009a).

Another strength was to include all the main protagonists who create the pre-travel health consultation – experts, nurses and travellers. The contribution of travellers to travel health research, made possible through using in-depth qualitative research methods, is uncommon. Their involvement in the original design, piloting and data collection, enabled mapping of the consultation components throughout the journey from expert to nurse to traveller. By agreeing to participate, travellers contributed to an awareness of conceptual issues such as travel being a driver *for* health, rather than the risky activity that health professionals portray it as. Of course, both perspectives have a place, but that of the traveller is not well represented in travel health literature. Their participation highlighted the prevailing low regard of health professionals for travellers' knowledge, skills and attitudes.

It is encouraging that peers in nursing, travel medicine, and academia have helped to disseminate findings from this thesis. Peer reviewed articles generated by the literature review, and conference papers and posters on the research have been accepted for publication and presentation, and are detailed in Appendix 12.

8.5 Key messages

For practitioners

Practitioners such as the practice nurse participants of this study, manage a broad and increasingly complex workload in general practice. Faced with a tide of

competing demands, participants were keen to keep up professional standards and to provide quality care. Three ways in which they could do so in travel health, would also be transferable to other areas of work that they undertake, and relate to the triad of knowledge, skills and attitudes that underpin learning and competency development in professional practice. Firstly, opportunities could be sought to increase knowledge about consultation models, the need to adapt them for specific purposes and to explicitly plan an approach to understanding and meeting the needs of an individual. Person-centredness is a key concept for inclusion. Reflecting on their own performance within consultations is necessary, and the educational provision available to doctors needs to be adapted for nurses too. Audio-visual recordings of actual consultations are an extremely powerful tool, and should be used within a framework of gaining informed consent from patients, data protection, and an opportunity to receive constructive feedback. Structured teaching on consultation models and self-reflection could be accomplished more widely in formal academic educational programmes for nurses, or within clinical governance, protected learning time and clinical supervision sessions at a practice level.

Secondly, improving skills in patient education would benefit pre-travel consultations, but would also be transferable to other responsibilities in general practice such as health promotion interventions and chronic disease management. These skills should include the way in which risk is framed to travellers, with, for instance, greater use of solution-focused communication as identified from the literature on risk (Collin and Lee, 2003; Berry, 2004). There needs to be a move away from handing over leaflets without engaging the traveller with their contents, and the hurried, one-sided verbal list of things *not* to

do. Instead, a more positive, facilitative approach based on travellers' existing knowledge, and rooted in theories of adult education, is more likely to achieve the consultation aims.

This would require a shift in practitioners' attitudes. The stereotypes of travellers that emerged from this study – the blank slate or ignorant traveller, the non-compliant traveller, the challenging traveller, and the indecisive traveller – were rooted in participants' experiences, for which they had plenty of anecdotes and examples. Care is needed to recognise and question these stereotypes however, and to consider, from a travellers' perspective, *why* non-compliance might be the case. A danger exists of a 'blame culture' developing against travellers, and the most common example was of the 'last minute' traveller, a person requiring an appointment at short notice because of imminent travel. It was viewed as being 'their fault' for not having booked sooner, ignoring reasons for travel such as bereavement and work, or that the practice culture, systems, and practitioner stress all played a part in producing the negative attitude.

For travellers

Most of the travellers in this study possessed a wealth of knowledge and experience that enabled them to manage their health abroad, although this is not the case for all travellers. Other studies indicate that young people have a disproportionate share of problems abroad, variously attributed to their attitudes to risk; a lack of life experience; and a youth culture accepting of alcohol and substance use, and which promotes the expectation of significant overseas travel, evident in the 'gap year' phenomenon. Inexperienced travellers are also at higher risk of adverse events – it is hard to protect oneself against unknown and

unimagined threats in an unfamiliar environment (Reid *et al*, 2001). Travel consultations are advantageous – access to vaccines and malaria chemoprophylaxis is frequently needed – but the knowledge carried with the traveller abroad is the factor most likely to enable individuals to make their own risk assessments, behavioural decisions and to manage their health. For travellers, gaining prior knowledge of their destination, its culture, environment and amenities, offers a route towards self-preservation. Tudor Hart's (1995) concept of the co-production of health places responsibility on health professionals to enable people to manage their own health, but also recognises the responsibility of individuals to play their part in doing so.

For the segment of UK travellers known as VFRs, this is not easy. Risks at their destinations are underestimated, they are not aware of pre-travel health services, and often do not have a culture of accessing general practice unless they are ill (HPA, 2008b). Some of the specialist travel agents, for instance those organising Hajj and Umrah pilgrimages, or representative groups such as the Muslim Council of Britain, could play a valuable role in disseminating health messages to travellers.

For academia

Travel health needs more interdisciplinary collaboration if the understanding of it is to grow comprehensively. On a macro scale, the epidemiology of infectious and non-infectious risks to health is an on-going topic, subject to change as epidemics and pandemics occur, and as different migrant groups emerge. In an era of unprecedented travel and globalisation, boundaries between who is the traveller and who is the host population are becoming blurred. Also unprecedented are the

competing demands for health interventions and quality and service improvements against a backdrop of finite economic and staffing resources. Travel health needs to provide evidence – including economic evaluation – of Donabedian's (1990) seven pillars of quality. It also needs to make explicit the interrelationship between travel and other areas of concern within UK health care such as sexually acquired infections.

The microcosm of the UK pre-travel health consultation also needs illumination from other disciplines. Sociology aids an understanding of the different segments of UK society who travel, for what purpose, and at what types of risk. Psychology offers insights into behavioural changes abroad, such as the theory of liminal space. Derived from anthropology, the concept of liminality describes a threshold, a space where transformations and changes occur. Usual boundaries to thought, self-understanding, and behaviour are relaxed – a situation which can lead to new perspectives (Slavin, 2003). In travel health the theory posits that individuals can take both a physical and a 'moral holiday' while abroad, for instance, engaging in sexual activity that they would not undertake at home because the new space they find themselves in also creates a space in their normal patterns of thinking (Ryan and Hall, 2001). However, the theory of liminality is currently more recognised in tourism than in health research. Psychology is also the discipline which has contributed most towards an understanding of the dynamics (Roter and Larson, 2002) and communications within consultations (Kidd *et al*, 2005). Finally, the shift from pedagogy to andragogy in theories of adult and patient education still needs to be applied within the pre-travel consultation (Conner, 1997–2004; Knowles *et al*, 2005). Secondary analysis of the AV data using discourse or conversation analysis techniques could offer a useful approach, for instance in providing an

understanding of the role of linguistics in framing risks. In general, evidence about consultations by nurses is still scant, and offers further scope for research.

It would be helpful for nursing (and other disciplines') research papers to make meanings clear in their use of terminology such as 'model' and 'theory', and synonyms such as 'approach' or 'perspective'. Whereas research texts usually refer to their differences, usage is less clearly defined in published papers. This was particularly marked in the literature on consultations.

For the experts and policy makers

Internationally, great strides have been made in recent years to 'grow' the young discipline of travel health. Of particular relevance is the very recent interest in 'how to' provide services, rather than an infectious disease-focused 'what to' include, which now needs translating into guidance.

The standards and competencies that are now being developed need testing in practice, recognising the pressures, constraints and external forces that influence individual practice. A top-down imposition of standards, that meet barriers at practice level, are unlikely to improve pre-travel health care, and may even alienate practitioners from engaging with it. They also need to be reviewed in the light of emerging questions about the strength of their evidence base (Behrens, 2009), and the recognition that international recommendations are not in accord with each other. Essential to this is the need for more evidence about risks and how to translate still-limited epidemiological data into effective interventions for individuals.

At a UK level, guidance for practitioners features some anomalies. Firstly, there are different government departments managing some pre-travel health issues. The Home Office contains the Foreign and Commonwealth Office, which focuses on non-infectious risks to travellers' health and well-being (these are the most likely causes of morbidity and mortality abroad). Under the broad auspices of the Department of Health are organisations such as the Health Protection Agency and the National Travel Health Network and Centre, general practice, a few NHS Trust travel clinics, and the Joint Committee on Vaccination and Immunisation. Furthermore, devolved authority means that Health Protection Scotland hosts TRAVAX, but is not part of the Health Protection Agency for the rest of the UK. However, there appears to be no joined-up policy or strategy for travel health between the Home Office and Department of Health at government level, although both approaches are required within the consultation. One solution could be a representative task force to work on three immediate priorities: updating the content and format of official guidance for practitioners; a review of how pre- and post-travel services are delivered, including a feasibility study of whether one or a few practices within a Primary Care Trust or Local Health Board could offer more specialist and better quality services; and an overhaul of pricing structures and charges for vaccines.

8.6 Conclusions

This study stemmed from the researcher's experience and personal view that travel-related health care would become increasingly important in an era of globalisation. Time spent as a practice nurse led to a growing sense that pre-travel consultations were somehow different from anything else in general practice. Nursing experience on an infectious diseases unit and in clinical nurse

education contributed to a growing 'hunch' that things could be better. What was being done, why, and did it work?

What was already known from the literature was that existing health problems and accidents were the main causes of death abroad, but infectious diseases do cause significant morbidity, and it seemed reasonable to try to prevent them. Yet individuals travelling to different places, for different purposes and durations clearly face very different levels of risk. Under-treatment was a problem, and there was growing recognition that over-treatment might be too – so how could these two extremes be balanced to provide optimum preventive care?

What was not known was what actually went on in general practice pre-travel consultations, and what travellers did as a result of those appointments. It is to these issues that this research makes a contribution, describing practice and its challenges. Using a bricolage design of six methods enabled the exploration of practice from the perspectives of different stakeholders. Expert guidance documents often lacked strong epidemiological support, and had little recognition of the nursing role, or of how to deliver services. Practice nurses welcomed the variety and interest of travel health work, while simultaneously recognising the 'scary' nature of its complexities, and fearing consequences for both themselves and travellers if they 'got it wrong'. Pressures included the lack of appointments, not enough time in consultations, a lack of education on travel health issues, consultation models and teaching skills, and a lack of awareness about person-centred approaches. The vast array of relevant variables involved in assessing different types of trip and traveller led to only partial assessments, difficulties managing 'grey areas' where no absolute decision was indicated, and resulted in

attempts to cover everything by using a didactic style. Travellers were passive during their consultations, but frequently demonstrated their knowledge and experience when faced with health challenges and risks abroad.

A theme of patient safety and quality unified many of the findings, and gives rise to several implications: nurses need to be able to select different models of consultation for different purposes, to aim for a more person-centred approach, and to adopt empowering means of promoting health and patient education. The PRE-TRAVEL model of consultation is a contribution to practice aimed at facilitating these changes for the benefit of both travellers and practitioners.

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Appendices

1. Audit tool (method two).
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Appendix 1: Audit tool (method two).

Participant No:

Baseline assessment of structures for pre-travel health consultations

Please circle the correct answer for each question.

1. How much time do you have for a pre-travel health appointment?
5 minutes
10 minutes
15 minutes
20 minutes
25 minutes
30 minutes
Other

2. Is more than one person booked into a single appointment?
Never **Rarely** **Sometimes** **Often**

3. Are patient records available for the consultation?
Never **Rarely** **Often** **Always**

4. Is there a form, protocol or template to structure your assessment of an individual's travel health needs? **Yes / No**

5. If you answered *Yes* to question 4, is that template: **Paper** or **Electronic**?

6. Is there a working telephone available in the room you most frequently work in? **Yes / No**

7. Is there a computer with internet connection available to you in the room you most frequently work in? **Yes / No**

8. Please identify the sources of information you use to assess and advise travellers:

Books	Yes / No
If Yes please state which ones you use:	
Wallcharts	Yes / No
If Yes please state the source or supplier:	
Atlas or map:	Yes / No
Online resource:	Yes / No
If Yes please state which sites:	
Telephone Helpline:	Yes / No
If Yes please state which ones:	
Other sources:	Yes / No
If Yes please list:	

9. Have you signed a Patient Group Direction for every vaccine that you administer? **Yes / No**
10. Does a GP prescribe the vaccines for each traveller before you administer them? **Yes / No**
11. Are you qualified as an independent nurse prescriber? **Yes / No**
12. Are vaccines stored in a purpose-made pharmacy refrigerator?
Never Rarely Often Always
13. Is the minimum and maximum temperature of the refrigerator recorded on days when vaccines are used?
Never Rarely Often Always
14. Are there any non-medicinal products stored in the vaccine refrigerator?
Never Rarely Often Always
15. How many vaccine manufacturers supply this practice with *travel* vaccines?
1 2 3 4 5 Don't know
16. Is there an in-date anaphylaxis kit containing adrenaline (epinephrine) in the room where you administer vaccines? **Yes / No / Don't know**
17. Are vaccination record books given to travellers who receive vaccines?
Yes / No / Don't know
18. Is there a recall system for patients to be reminded about completion and boosters of their travel vaccines? **Yes / No / Don't know**
19. If you answered **Yes** to question 17, is that system: **Paper** or **Electronic**?
20. Do you give any take-home information to travellers?
- Website addresses **Yes / No**
 - Telephone helpline numbers **Yes / No**
 - General-purpose leaflets on healthy travel **Yes / No**
 - Patient information sheets for medicines **Yes / No**
 - Insurance information **Yes / No**
 - Diarrhoea information **Yes / No**
 - Sexual health information **Yes / No**
 - Safe sun information **Yes / No**
 - Bite protection information **Yes / No**
 - Accident prevention information **Yes / No**
 - Others? Please state:

Appendix 2: Letters of invitation, participant information sheets and consent forms.

Appendix 2.1: Invitation letter to senior partners.

Headed paper from Warwick Medical School

Date:

Dear Dr (*name of senior partner*)

Re: Permission to approach practice nurses and patients for research

I am writing to ask your permission to approach the practice nurses and patients attending for pre-travel health consultations at your practice.

I am a registered nurse studying for a PhD at Warwick Medical School, and my research interests are in how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. My aim is to develop evidence-based recommendations for future practice and education.

This study is subject to ethical approval by the Gloucestershire Local Research Ethics Committee, and NHS Research Management and Governance Partnerships for all participating PCTs. Video-recording will be conducted in accordance with GMC guidance.

The enclosed information sheets explain what would be required of the practice nurses and patients, whose individual informed consent will of course be sought. However, permission from you and your partners is first required, and I have enclosed a form and stamped addressed envelope for your decision. In summary, the requirements are to:

- Engage practice nurses in recruiting patients to this study.
- Ask practice nurses to complete a short form on resources for travel health consultations.
- Video-record consultations between practice nurses and patients who intend to travel abroad.
- Ask patients to keep a diary and participate in a telephone interview about their health abroad.

I am very happy to discuss the research and to answer any questions by visiting your practice. You are also most welcome to contact me directly (details below). I look forward to hearing from you, and thank you for your time.

Yours sincerely,
Signature appeared here.

Adrienne Willcox.
MA (Ed), BSc (Hons), RGN, Registered Nurse Teacher, M.ILT

Postal, email and telephone contact details provided here.

I agree to Adrienne Willcox approaching the practice nurses employed by this practice to request their participation in this research study:

YES / NO *(Please delete as applicable)*

Name: *(block capitals)*

Signature:

Practice address: *(entered by researcher to ensure clarity)*

Stamped addressed envelope provided.

Appendix 2.2: Invitation letter to practice nurses, methods two and three.

Headed paper from Warwick Medical School

Date:

Dear *(name of nurse)*

Research project: developing the nursing pre-travel health consultation

I am writing to ask if you would consider participating in a research project on the pre-travel health consultation.

I am a registered nurse studying for a PhD at Warwick Medical School, and my research interests are in how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. My aim is to develop evidence-based recommendations for future practice and education.

This study is subject to ethical approval by the Gloucestershire Local Research Ethics Committee, and NHS Research Management and Governance Partnerships for all participating PCTs. The Senior Partner of your practice has given permission for me to approach you to ask if you wish to be involved.

The enclosed information sheet explains what would be required of you and your patients, whose individual informed consent will of course be sought. I have enclosed a form and stamped addressed envelope for your decision. In summary, the requirements are to:

- Post an information pack out to patients.
- Complete a short form on resources for travel health consultations.
- Video-record consultations between you and patients who intend to travel abroad.

I am very happy to discuss the research and to answer any questions by visiting your practice. You are also most welcome to contact me directly (details below).

I look forward to hearing from you, and thank you for your time.

Yours sincerely,
Signature appeared here.

Adrienne Willcox.
MA (Ed), BSc (Hons), RGN, Registered Nurse Teacher, M.ILT

Postal, email and telephone contact details provided here.

I am willing in principle to participate in this research study:

YES / NO (*Please delete as applicable*)

Name: (*block capitals*)

Signature:

Practice address: (*entered by researcher to ensure clarity*)

Practice telephone number:

Personal telephone number(s):

Email address:

What days of the week and times do you normally work?

Is there a dedicated travel health clinic? If so, please give day and times:

Are travel health appointments available during general nursing sessions?

Stamped addressed envelope provided.

Appendix 2.3: Information sheet for practice nurses, methods two and three.

Headed paper from Warwick Medical School

Title of Project: Developing the Nursing Pre-travel Health Consultation.

Introduction

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

- Part 1 tells you the purpose of this study and what will happen to you if you take part.
- Part 2 gives you more detailed information about the conduct of the study. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Part 1

What is the purpose of the study?

The purpose of the study is to find out how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. The aim is to develop evidence-based recommendations for future practice and education.

This research is being carried out by Adrienne Willcox as part of a PhD study at the University of Warwick Medical School. Adrienne is a registered nurse and nurse teacher.

Why have I been chosen?

A minimum of 6 practice nurses who carry out pre-travel health consultations are required for this study. You are approached in your professional capacity as a nurse carrying out pre-travel health consultations. Practices known to offer travel health appointments within the South West Strategic Health Authority area are approached in turn until a sufficient number of nurse participants are recruited.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not adversely affect you in any way.

What will happen to me if I take part?

The researcher will visit you to discuss the project, gain your written informed consent, and make the practical arrangements for the research with you. Visits will be organised according to your convenience and preferences.

You will be asked to identify patients who have booked with you for a pre-travel health appointment, and to post out an information pack about the study. The pack and postage will be supplied by the researcher. This will require 10 minutes of your time a week, for 1 to 3 weeks.

The researcher will attend your practice when you have patients booked in for

travel health appointments, who are willing in principle to participate in the study. This will normally require only one visit, but there may be others. It depends on how the travel health appointments are organised in your practice, and will be discussed with you prior to you deciding whether to consent or not. 6 patients who book travel health appointments with you are wanted for this study.

You will be asked to complete one form. This will take approximately 15 minutes and will require only tick box answers or brief written responses.

If the attending patients consent to take part in this study, the researcher will set up an audio-video recorder in your treatment room, then withdraw while you carry out the pre-travel health consultation. This will take only as long as your normal appointment time. 6 consultations are required in total.

Audio-video recording is the most accurate way for the researcher to capture what happens in a consultation, and it will be analysed using a validated and reliable system developed by researchers at John Hopkins University, Baltimore. The recordings will be seen and heard by the researcher and her University of Warwick supervisors as part of the checks to make sure that the PhD work is properly conducted. The recordings will not be shown or heard by others, and will be securely stored until 5 years after the end of the PhD in accordance with the Data Protection Act. Any verbatim quotation used in subsequent publications will not identify the individual. Confidentiality and anonymity will be protected and further details are in Part 2.

Expenses and payments

The researcher will provide a small gift of travel health educational resources to the practice as a “thank you” for their participation.

What do I have to do?

You will have to:

- Post an information pack out to patients.
- Complete a short form.
- Carry out your pre-travel health appointments exactly as you would normally do, whilst being audio-video recorded.

What are the possible disadvantages and risks of taking part?

It is extremely unlikely that there is any risk to you by taking part. There may be some inconveniences, which are likely to be minor and include:

- Time. Approximately 1 to 2 hours is required, but this includes the time you would normally spend on patient appointments. Running late during a clinic. This could happen if a patient requires a lot of the researcher’s time prior to their appointment with you. It would be wise to book a couple of catch-up appointments on the day the research takes place.
- It can feel uncomfortable to be recorded, especially if it is a new experience for you. The researcher will set up the equipment to be as unobtrusive as possible, and will then leave the room. Video-recording consultations is now usual practice in a lot of training programmes, and people really do forget about it after a few minutes, so just carry on as you normally would. The researcher is definitely not looking for “good” or “bad” consultations, so you will not be judged!

What are the possible benefits of taking part?

There is no promise that the study will help you, but you will be contributing to an understanding of nursing and traveller needs and work that has not been done before. The information might help practice nurses to develop their services for travellers, and contribute to practice nurse education.

You will be given an educational resource pack as a gift for taking part, which will be of use to all members of your team who provide travel health services.

You will also receive a letter of participation that can be used within your professional development portfolio to support Nursing and Midwifery Council re-registration and other requirements for evidence of practice.

The researcher will provide you with a summary of the research findings.

What happens when the research stops?

You are entitled to learn about the findings from the researcher.

The audio-video recordings will be destroyed 5 years after the PhD is completed.

What if there is a problem?

Any complaint about the way you have been dealt with during the study will be addressed. Detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. All the information about your participation in this study will be kept confidential. The details are included in Part 2.

Contact details

You can contact the researcher Adrienne Willcox as follows:

Contact details provided here.

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

Part 2

What will happen if I don't want to carry on with the study?

You can withdraw from the study at any time. Data collected up to your withdrawal may still be used if you are willing.

What if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researcher who will do their best to answer your questions. You can contact the researcher Adrienne Willcox as follows:

Contact details provided here.

If you remain unhappy and wish to complain formally, you can do this through the University of Warwick. Please contact Professor Jeremy Dale, Director, Centre for Primary Health Care Studies, as follows:

Contact details provided here.

Address: University of Warwick
Centre for Primary Health Care Studies, Warwick Medical School,
Gibbet Hill Campus
Coventry CV4 7AL

The researcher has University of Warwick and Royal College of Nursing indemnity insurance in the event of negligent harm arising from the research.

Will my taking part in this study be kept confidential?

All information will be collected, handled, processed, stored and destroyed in accordance with the Data Protection Act 1998.

It will involve paper and electronic collection and storage, and where possible will be coded and made anonymous by the researcher.

It will only be used for the purposes of this PhD research. This may mean it will be viewed by University supervisors for the purpose of checking that the research has been carried out properly. Both supervisors have a duty of confidentiality to you as a research participant.

Data will be securely archived for the period of the PhD and an additional 5 years, when it will be destroyed.

You have the right to check the accuracy of data held about you, and to correct any errors. You can do this by contacting the researcher (details above).

The only exception to confidentiality and anonymity is if the researcher has a duty to disclose information that can be:

- justified in the public interest (usually where disclosure is essential to protect a person from the risk of significant harm)
- required by law or by order of a court.

Involvement of the General Practitioner/Family Doctor (GP)

The researcher has sought permission from your GP employer to approach you regarding this research. They will not be asked anything about you but will have received a copy of this Information Sheet.

What will happen to the results of the research study?

The results of the study are anticipated in late 2009. These will be sent to all participants. It is intended that they will be published and presented at conferences, but you, your patients or practice will not be identified.

Who is organising and funding the research?

This study is organised through the University of Warwick. It is self-funded by the researcher, a student at the University of Warwick.

Who has reviewed the study?

This study has been reviewed by an NHS Local Research Ethics Committee and the Research Management and Governance Partnerships for all participating PCTs.

If you decide to participate in this study you will be given a copy of this information sheet and a signed consent form to keep.

Thank you for taking the time to read this sheet and to consider taking part.

Appendix 2.4: Consent form for practice nurses, methods two and three.

Headed paper from Warwick Medical School

Participant Identification Number:

Title of Project: Developing the Nursing Pre-Travel Health Consultation

Name of Researcher: Adrienne Willcox

Please initial box

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected. Any data collected will be destroyed if I wish.
3. I understand that the information collected during the study (audit and video-recording of the consultation) may be examined by academic supervisors from the University of Warwick to check that the study is being carried out correctly. I give permission for relevant individuals to have access to these.
4. I understand that all information collected in the research study will be held in confidence (unless disclosure is required by law or in the public interest). If the information is presented or published, all my personal details will be removed.
5. I agree to take part in the above study.

Name of participant:

Date:

Signature:

Name of researcher:

Date:

Signature:

Copies of this form: 1 for nurse, 1 for researcher.

Appendix 2.5: Invitation letter to travellers.

Headed paper from Warwick Medical School

Date:

Dear *(name of traveller)*

Research project: developing the nursing pre-travel health consultation

I am writing to ask if you would consider participating in a research project on the pre-travel health consultation.

It is being carried out by a registered nurse studying for a PhD at Warwick Medical School to find out how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. The aim is to develop evidence-based recommendations for future practice and education.

This study is subject to ethical approval by the Gloucestershire Local Research Ethics Committee, and NHS Research Management and Governance Partnerships for all participating PCTs. Your doctor has given me permission to contact you.

The enclosed information sheet explains what would be required of you and I have enclosed a form and stamped addressed envelope for your decision. In summary it is to:

- have your consultation with me video-recorded.
- keep a short diary about your health abroad.
- take part in a telephone interview after your return from abroad.

The researcher is very happy to discuss the research and to answer any questions you may have. You are also most welcome to contact her directly (details overleaf). If you are willing in principle to take part in this research, the researcher will see you at the surgery before your travel health appointment with me.

I look forward to hearing from you, and thank you for your time.

Yours sincerely,

(Signed by the practice nurse)

Researcher:

Adrienne Willcox.

MA (Ed), BSc (Hons), RGN, Registered Nurse Teacher, M.ILT

Postal, email and telephone contact details provided.

I am willing in principle to participate in this research study:

YES / NO *(Please delete as applicable)*

Name: *(block capitals)*

Signature:

Address of doctor's surgery: *(completed by researcher for clarity)*

Date and time of your travel health appointment with the nurse:

Stamped addressed envelope provided.

Appendix 2.6: Information sheet for travellers.

Headed paper from Warwick Medical School

Title of Project: Developing the Nursing Pre-travel Health Consultation.

Introduction

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

- Part 1 tells you the purpose of this study and what will happen to you if you take part.
- Part 2 gives you more detailed information about the conduct of the study. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Part 1

What is the purpose of the study?

The purpose of the study is to find out how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. The aim is to develop evidence-based recommendations for future practice and education.

This research is being carried out by Adrienne Willcox as part of a PhD study at the University of Warwick Medical School. Adrienne is a registered nurse and nurse teacher.

Why have I been chosen?

Practices known to offer travel health appointments within the South West Strategic Health Authority area are being approached to take part in this research. You have been chosen because you have booked a travel health appointment in a practice that has agreed to take part.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not adversely affect you in any way.

What will happen to me if I take part?

The researcher will meet you at your surgery when you arrive for your appointment with the nurse. You will have an opportunity to ask any questions and to decide whether you wish to participate. If you agree, you will be asked to sign consent forms. You are being asked to consent to three different stages of research:

1. The researcher will set up an audio-video recorder in the nurse's room, then withdraw while you have your pre-travel health consultation with the nurse. This usually takes 10 to 15 minutes.

Audio-video recording is the most accurate way for the researcher to capture what happens in a consultation, and it will be analysed using a validated and reliable system developed by researchers at John Hopkins University, Baltimore. The recordings will be seen and heard by the researcher and her University of Warwick supervisors as part of the checks to make sure that the PhD work is properly conducted. The recordings will not be shown or heard by others, and will be securely stored until the end of the PhD in accordance with the Data Protection Act. Any verbatim quotation used in subsequent publications will not identify the individual. Confidentiality and anonymity will be protected and further details are in Part 2.

2. The researcher will give you a diary to complete while you are abroad. It asks you to record any health problems you have while away, and what you did about them. You are also asked to record any potential health problems that you took action to avoid. For instance, if a fight breaks out beside you in a bar, did you leave to avoid being drawn in? The diary is designed to be quick and easy to complete and should not take more than a few minutes for any entry you make. You will have a postage-paid envelope to return your diary to the researcher when you arrive home.

3. The researcher will agree a date and time for her to telephone you, about two weeks after your return from abroad. This telephone interview will be recorded, and the purpose is to find out more about how you managed your health when you were abroad.

What do I have to do?

You will have to:

- Agree for your pre-travel appointment with the nurse to be audio-video recorded.
- Keep a diary on your health while you are abroad and return it to the researcher in a stamped, addressed envelope.
- Take part in a recorded telephone interview about your health with the researcher about two weeks after your return from abroad.

What are the possible disadvantages and risks of taking part?

It is extremely unlikely that there is any risk to you by taking part. There may be some inconveniences, which are likely to be minor and include:

- Your time. Approximately 1 to 2 hours in total, depending on the frequency of health incidences abroad.
- It can feel uncomfortable to be recorded, especially if it is a new experience for you. The researcher will set up the equipment to be as unobtrusive as possible, and will then leave the room. Video-recording consultations is now usual practice in a lot of training programmes for health care professionals, and people really do forget about it after a few minutes, so just carry on as you normally would. The researcher is definitely not looking for particular questions or comments from you, so you will not be judged!

What are the possible benefits of taking part?

There is no promise that the study will help you, but you will be contributing to an understanding of nursing and traveller needs and work that has not been done before. The information might help practice nurses to develop their services for travellers, and contribute to practice nurse education, with an aim of safer travel for patients in the future.

What happens when the research stops?

You are entitled to learn about the findings from the researcher, and a summary will be provided for you.

The audio-video recordings and diary will be destroyed 5 years after the PhD is completed.

What if there is a problem?

Any complaint about the way you have been dealt with during the study will be addressed. Detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. All the information about your participation in this study will be kept confidential. The details are included in Part 2.

Contact details

You can contact the researcher Adrienne Willcox as follows:

Contact details provided.

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

Part 2

What will happen if I don't want to carry on with the study?

You can withdraw from the study at any time. Data collected up to your withdrawal may still be used if you are willing.

What if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researcher who will do their best to answer your questions. You can contact the researcher Adrienne Willcox as follows:

Contact details provided.

If you remain unhappy and wish to complain formally, you can do this through the University of Warwick. Please contact Professor Jeremy Dale, Director, Centre for Primary Health Care Studies, as follows:

Contact details provided.

Address: University of Warwick
Centre for Primary Health Care Studies, Warwick Medical School,
Gibbet Hill Campus
Coventry CV4 7AL

The researcher has University of Warwick and Royal College of Nursing indemnity insurance in the event of negligent harm arising from the research.

Will my taking part in this study be kept confidential?

All information will be collected, handled, processed, stored and destroyed in accordance with the Data Protection Act 1998.

It will involve paper and electronic collection and storage, and where possible will be coded and made anonymous by the researcher.

It will only be used for the purposes of this PhD research. This may mean it will be viewed by University supervisors for the purpose of checking that the research has been carried out properly. Both supervisors have a duty of confidentiality to you as a research participant.

Data will be securely archived for the period of the PhD and an additional 5 years, when it will be destroyed.

You have the right to check the accuracy of data held about you, and to correct any errors. You can do this by contacting the researcher (details above).

The only exception to confidentiality and anonymity is if the researcher has a duty to disclose information that can be:

- justified in the public interest (usually where disclosure is essential to protect a person from the risk of significant harm)
- required by law or by order of a court.

Involvement of the General Practitioner/Family Doctor (GP)

The researcher sought permission from your GP practice to approach you regarding this research. They will not be asked anything about you but will have received a copy of this Information Sheet and your consent form.

What will happen to the results of the research study?

The results of the study are anticipated in late 2009. These will be sent to all participants. It is intended that they will be published and presented at conferences, but you, your nurse or doctor's practice will not be identified.

Who is organising and funding the research?

This study is organised through the University of Warwick. It is self-funded by the researcher, a student at the University of Warwick.

Who has reviewed the study?

This study has been reviewed by an NHS Local Research Ethics Committee and the Research Management and Governance Partnerships for all participating PCTs.

If you decide to participate in this study you will be given a copy of this information sheet and a signed consent form to keep.

Thank you for taking the time to read this sheet and to consider taking part.

Appendix 2.7: Consent form for travellers – research project.

Headed paper from Warwick Medical School

Participant Identification Number:

Title of Project: Developing the Nursing Pre-Travel Health Consultation

Name of Researcher: Adrienne Willcox

Please initial box

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. Any data collected will be destroyed if I wish.
3. I understand that the information collected during the study (video-recording of the consultation, diary and audio-recording of the telephone interview) may be examined by academic supervisors from the University of Warwick to check that the study is being carried out correctly. I give permission for relevant individuals to have access to these.
4. I understand that all information collected in the research study will be held in confidence (unless disclosure is required by law or in the public interest). If the information is presented or published, all my personal details will be removed.
5. I agree to take part in the above study.

Name of patient:
Signature:

Date:

Name of researcher:
Signature:

Date:

Copies of this form: 1 for patient, 1 for researcher, 1 (original) for practice notes.

Appendix 2.8: Consent form for travellers – AV recordings.

Headed paper from Warwick Medical School

Participant Identification Number:

Title of Project: Developing the Nursing Pre-Travel Health Consultation

Name of Researcher: Adrienne Willcox

Adrienne Willcox, PhD research student, is hoping to make video-recordings of some consultations between nurses and patients who are travelling abroad, and later, audio-recordings of telephone interviews with those patients. The recordings are for research purposes only.

The video is ONLY of you and the nurse talking together and the vaccination process, if appropriate. Intimate examinations will not be recorded and the camera will be switched off at any time if you wish. All video recordings are carried out according to guidelines issued by the General Medical Council.

Only people directly involved in the researcher's PhD research will see the video or hear the telephone interview recordings. They will only be used for the purposes of this research project. The recordings will be securely stored and are subject to the same degree of confidentiality as your medical records. The recordings will be destroyed 5 years after the end of the PhD.

The security and confidentiality of the recordings are the responsibility of the researcher, who will personally transport them to secure storage.

You do not have to agree to your consultation with the nurse being recorded. If you do not want your consultation or telephone interview to be recorded, please tell the researcher. This is not a problem, and will not affect your consultation in any way. But if you do not mind your consultation being recorded, we are grateful to you. If you wish, you may view the recording before confirming your consent.

If you consent to this consultation being recorded, please sign overleaf. Thank you very much for your help.

To be completed by patient:

I have read and understood the above information and give my permission for my consultation to be video-recorded and for my telephone interview with the researcher to be recorded.

Name of patient:

Signature of patient

Date:

BEFORE THE CONSULTATION:

After seeing the nurse I am still willing / I no longer wish my consultation to be used for the above purposes.

Signature of patient

Date:

AFTER THE CONSULTATION:

Copies of this form: 1 for patient, 1 for researcher, 1 (original) for practice notes.

Appendix 2.9: Invitation letter to practice nurses, method six.

Headed paper from Warwick Medical School

Date:

Dear *(name of PN)*

Research project: developing the nursing pre-travel health consultation

I am writing to ask if you would consider participating in a research project on the pre-travel health consultation.

I am a registered nurse studying for a PhD at Warwick Medical School, and my research interests are in how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. My aim is to develop evidence-based recommendations for future practice and education.

This study is subject to ethical approval by the Gloucestershire Local Research Ethics Committee, and NHS Research Management and Governance Partnerships for all participating PCTs.

The enclosed information sheet explains what would be required of you, and there is absolutely no obligation to take part. I have enclosed a form and stamped addressed envelope for your decision.

In summary, the requirement is for you to attend a focus group of four or five other nurses to discuss the challenges of providing pre-travel health consultations. In recognition of your time and travel costs, supper and a gift token will be provided.

I am very happy to discuss the research and to answer any questions. You are also most welcome to contact me directly (details below).

I look forward to hearing from you, and thank you for your time.

Yours sincerely,
Signature appeared here.

Adrienne Willcox.
MA (Ed), BSc (Hons), RN, Registered Nurse Teacher, FHEA, Lic.Ac.

Postal, email and telephone contact details provided here.

I am willing in principle to participate in this research study:

YES / NO (*Please delete as applicable*)

Name: (*block capitals*)

Signature:

Practice address: (*completed by researcher for clarity*)

Practice telephone number:

Personal telephone number(s):

Email address:

Stamped, addressed envelope provided.

Appendix 2.10: Information sheet for practice nurses, method six.

Headed paper from Warwick Medical School.

Title of Project: Developing the Nursing Pre-travel Health Consultation.

Introduction

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

- Part 1 tells you the purpose of this study and what will happen to you if you take part.
- Part 2 gives you more detailed information about the conduct of the study. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Part 1

What is the purpose of the study?

The purpose of the study is to find out how nurses manage pre-travel health consultations, and how patients use the contents of their consultation while abroad. The aim is to develop evidence-based recommendations for future practice and education.

This research is being carried out by Adrienne Willcox as part of a PhD study at the University of Warwick Medical School. Adrienne is a registered nurse and nurse teacher.

Why have I been chosen?

Twenty practice nurses who carry out pre-travel health consultations are required for this part of the study. You are approached in your professional capacity as a nurse carrying out pre-travel health consultations. Practices known to offer travel health appointments within the South West Strategic Health Authority area are approached until a sufficient number of nurse participants are recruited.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not adversely affect you in any way.

What will happen to me if I take part?

You will be invited to attend a focus group meeting to discuss the challenges of providing pre-travel health consultations. You will be offered a choice of dates to attend. Focus groups will usually have five nurses taking part, and discussions will be recorded. This discussion will take approximately 45 minutes.

Audio recording is the most accurate way for the researcher to capture the discussion, and it will be analysed using a validated and reliable system. The recordings will be heard by the researcher and her University of Warwick

supervisors as part of the checks to make sure that the PhD work is properly conducted. The recordings will not be shown or heard by others, and will be securely stored until 5 years after the end of the PhD in accordance with the Data Protection Act. Any verbatim quotation used in subsequent publications will not identify the individual. Confidentiality and anonymity will be protected and further details are in Part 2.

Expenses and payments

The researcher will provide a small educational gift token as a “thank you” for your time and travel. As the focus groups are held in the evening to avoid clashes with surgery time, a light supper will be provided.

What do I have to do?

You will have the opportunity to contribute to any aspect of the discussion on pre-travel health consultations.

What are the possible disadvantages and risks of taking part?

It is extremely unlikely that there is any risk to you by taking part. There may be some inconveniences, which are likely to be minor and include:

- Time. Approximately 2 - 3 hours is required.
- Cost of travel to the venue.
- It can feel uncomfortable to be recorded, especially if it is a new experience for you. The researcher will set up the equipment to be as unobtrusive as possible, and people really do forget about it after a few minutes, so just carry on talking as you normally would. The researcher is definitely not looking for “right” or “wrong” answers, so you will not be judged!

What are the possible benefits of taking part?

There is no promise that the study will help you, but you will be contributing to an understanding of nursing and traveller needs and work that has not been done before. The information might help practice nurses to develop their services for travellers, and contribute to practice nurse education.

You will be given an educational token as a gift for taking part.

You will also receive a letter of participation that can be used within your professional development portfolio to support Nursing and Midwifery Council re-registration and other requirements for evidence of practice.

What happens when the research stops?

You are entitled to learn about the findings from the researcher who will provide you with a summary of the research findings.

The audio recordings will be destroyed 5 years after the PhD is completed.

What if there is a problem?

Any complaint about the way you have been dealt with during the study will be addressed. Detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. All the information about your participation in this study will be kept confidential. The details are included in Part 2.

Contact details

You can contact the researcher Adrienne Willcox as follows:

Contact details provided here.

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

Part 2

What will happen if I don't want to carry on with the study?

You can withdraw from the study at any time. Data collected up to your withdrawal may still be used if you are willing.

What if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researcher who will do their best to answer your questions. You can contact the researcher Adrienne Willcox as follows:

Contact details provided here.

If you remain unhappy and wish to complain formally, you can do this through the University of Warwick. Please contact Professor Jeremy Dale, Director, Centre for Primary Health Care Studies, as follows:

Contact details provided here.

Address: University of Warwick
Centre for Primary Health Care Studies, Warwick Medical School,
Gibbet Hill Campus
Coventry CV4 7AL

The researcher has University of Warwick and Royal College of Nursing indemnity insurance in the event of negligent harm arising from the research.

Will my taking part in this study be kept confidential?

All information will be collected, handled, processed, stored and destroyed in accordance with the Data Protection Act 1998.

It will involve paper and electronic collection and storage, and where possible will be coded and made anonymous by the researcher.

It will only be used for the purposes of this PhD research. This may mean it will be viewed by University supervisors for the purpose of checking that the research has been carried out properly. Both supervisors have a duty of confidentiality to you as a research participant.

Data will be securely archived for the period of the PhD and an additional 5 years, when it will be destroyed.

You have the right to check the accuracy of data held about you, and to correct any errors. You can do this by contacting the researcher (details above).

The only exception to confidentiality and anonymity is if the researcher has a duty to disclose information that can be:

- justified in the public interest (usually where disclosure is essential to protect a person from the risk of significant harm)
- required by law or by order of a court.

What will happen to the results of the research study?

The results of the study are anticipated in late 2009. These will be sent to all participants. It is intended that they will be published and presented at conferences, but you, your patients or practice will not be identified.

Who is organising and funding the research?

This study is organised through the University of Warwick. It is mainly self-funded by the researcher, a student at the University of Warwick. Research grants have been awarded by the International Society of Travel Medicine and the British Travel Health Association.

Who has reviewed the study?

This study has been reviewed by an NHS Local Research Ethics Committee and the Research Management and Governance Partnerships for all participating PCTs.

If you decide to participate in this study you will be given a copy of this information sheet and a signed consent form to keep.

Thank you for taking the time to read this sheet and to consider taking part.

Appendix 2.11: Consent form for practice nurses, method six.

Headed paper from Warwick Medical School

Participant Identification Number:

Title of Project: Developing the Nursing Pre-Travel Health Consultation

Name of Researcher: Adrienne Willcox

Please initial box

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, and to contact the researcher to ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected. Any data collected will be destroyed if I wish.
3. I understand that the information collected during the study (audio recording of the discussion) may be examined by academic supervisors from the University of Warwick to check that the study is being carried out correctly. I give permission for relevant individuals to have access to these.
4. I understand that all information collected in the research study will be held in confidence (unless disclosure is required by law or in the public interest). If the information is presented or published, all my personal details will be removed.
5. I agree to take part in the above study.

Name of participant:

Date:

Signature:

Name of researcher:

Date:

Signature:

Appendix 3: Transcription legend.

(Adapted from Silverman, D. (2001) *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*. London: Sage Publications. Appendix: page 303).

N	nurse
T	traveller
R	researcher
O	other
[a left bracket indicates the point at which the speaker's talk is overlapped by another's talk. Example: N1: Quite a [while T2: [yea
(00:00:03)	numbers in parentheses indicate a period of silence
–	underscoring indicates speaker's emphasis of a word. Example: T2: <u>No</u> , I don't want that.
Bold	emboldened words indicate the speaker's raised voice.
()	empty parentheses indicate the transcriber's inability to hear what was said.
<i>Italics</i>	transcriber's descriptions of non-linguistic occurrences. Examples: <i>T1: laughs. N1: frowns. (00:1:40 N1 prepares vaccine in silence)</i>

Appendix 4: Coding framework for AV recordings analysis (method three).

Structures (S)

- S1. Consultation length
- S2. Number of attendees
- S3. Availability of records
- S4. Equipment within work environment
- S5. Information resources for nurses
- S6. Information resources for travellers

Processes (P)

Nurse assessment of:

a) The trip

- Pa1. Mode of travel
- Pa2. Destination(s)
- Pa3. Date of travel
- Pa4. Duration of travel
- Pa5. Purpose/activities abroad
- Pa6. Accommodation type
- Pa7. Environment/climate

b) The traveller

- Pb1. Current health status of traveller
- Pb2. Past history of relevance
- Pb3. Vaccination status
- Pb4. Medication
- Pb5. Allergies
- Pb6. Existing knowledge and attitudes

Outcomes (O)

Did the nurse advise, or offer an intervention in accordance with official recommendations, on:

- ON1. Mode of travel
- ON2. Environment/climate
- ON3. Personal safety
- ON4. Non-vaccine preventable infections
- ON5. Vaccine-preventable infections
- ON6. Malaria prevention
- ON7. Exposure to blood/body fluids and sex
- ON8. Managing ill health abroad

Other sources of information and intervention:

- OO1. Given to the traveller?
- OO2. Referral or advice sought from specialist source?
- OO3. Follow-up within the practice?
- OO4. Other (all were referrals to Yellow Fever centres).

Open coding of general communications patterns (GC)

Open coding of themes (Th)

- Th1. Role of woman
- Th2. Division of labour
- Th3. Safety

Appendix 5: RIAS coding categories (method three).

Personal remarks, social conversation
Laughs, tells jokes
Shows concern or worry
Reassures, encourages or show optimism
Shows approval - direct
Gives compliment - general
Shows disapproval - direct
Shows criticism - general
Shows agreement or understanding
Back-channel responses (physician only)
Empathy statements
Legitimizing statements
Partnership statements (physician only)
Self-disclosure statements (physician only)
Asks for reassurance
Transition words
Gives orientation, instructions
Paraphrase/checks for understanding
Asks for understanding
Bid for repetition
Asks for opinion (physician only)
Asks for permission (physician only)
Asks closed-ended questions - medical condition
Asks closed-ended questions - therapeutic regimen
Asks closed-ended questions - lifestyle
Asks closed-ended questions - psychosocial
Asks closed-ended questions - other
Asks open-ended questions - medical condition
Asks open-ended questions - therapeutic regimen
Asks open-ended questions - lifestyle
Asks open-ended questions - psychosocial
Asks open-ended questions - other
Gives information - medical condition
Gives information - therapeutic regimen
Gives information - lifestyle
Gives information - psychosocial
Gives information - other
Counsels-medical condition/therapeutic regimen (physician only)
Counsels-lifestyle/psychosocial (physician only)
Requests for services (patient only)
Unintelligible utterances.

Also available online: <http://www.riasworks.com/background.html> Accessed on 11th November 2009.

Appendix 6: Illustrative transcript (method 3)

This transcript is included to demonstrate the various types of coding applied during the data analysis phase. In practice, codes were not all applied at once within a single transcript for a number of reasons. Overcrowded transcripts risked a lack of clarity; each code was checked independently of others; some work was done with electronic data (RIAS); and because the transcripts were re-formatted according to the need of each detailed phase of analysis. For instance, the barcoding technique required non-verbal content (such as the movements or expressions of participants, noted in italics in the transcript below) to be stripped out in order accurately assess the time spent in different phases of the consultation. Therefore this transcript provides a sample of qualitative codes for illustrative purposes, and should be read in conjunction with Figure 9 (coloured barcoding) and appendices 3 (transcript legend), and 4 (coding framework for structures, processes and outcomes). Appendix 5 (RIAS) codes created statistical data not reproducible here.

M3:N1:T1

Time Hrs:Mins:Secs Line numbers	Speaker	Transcript	Coding examples
1. 00:00:13	N	Have a seat. N and T enter and are seated, N looks straight to computer screen.	S2=1. S3,4
2.	T	OK, thank you.	
3.	N	Now I spoke to you on the phone	Pa. Th2.
4.	T	That's right, yeh	
5.	N	And so you're going to Mexico	Pa2.
6.	T	That's right, yeh	
7.	N	Leaving in May	Pa3
8.	T	Mm-hm	
9.	N	For two weeks	Pa4
10.	T	That's right, yeah	
11.	N	Staying on the coast? <i>N makes first eye contact with T.</i>	Pa2
12.	T	Yeah, it's on the coast, ummm, Playa del Carmen I think it is	
13. 00:00:30	N	Right, OK...and you've had some vacc shots, you've had your, a Hep. A in...that was August 2002...so that's..two, three, four, five, six... so your jabs ... so if I give you another <u>now</u> ...	Pb3 ON5
14.	T	Right OK	
15. 00:01:00	N	() <i>N is pulling folders from a drawer</i>	S5 or S6?
16.	T	'cos I went to Cuba	
17.	N	You don't remember having a booster?	Pb3
18.	T	No, no.	

19.	N	Telephone rings twice, nurse looks at call-screen Excuse me <i>Answers telephone (not transcribed)</i>		S4
20.	T	That's alright. <i>T looks into camera</i>		
21.	N	Replaces receiver, consults files () And you also need a typhoid....		S3
22.	T	Mm-hm		
23. 00:01:30	N	And you're fine for your tetanus which you had in two thousand and two as well, so that's ten years for that one		Pb3
24.	N	Did you have a book with all your vaccines written down – <i>N looks at T</i> - you don't remember?		Pb3
25.	T	Shakes head No, I don't to be honest.		
26.	N	OK. And you'll be alright, if you're not going to stay in any rural areas, you don't need () [so		Pa2; Pb3
27.	T	[No, I mean, I'm going there for a wedding, so it's in pretty posh accommodation, sort of thing really, so...		
28.	N	Do you remember when... you were OK with the vaccines you had before?		Pb5
29.	T	[Yeah, I've never had any reactions at all		
30. 00:02:00	N	So if you want to have a look...so if I give you – it'll be the hepatitis and typhoid <u>combined</u>		ON5
31.	T	[OK		
32.	N	[alright?		GC and Th3: is N seeking consent?
33.	T	[Mm-hm		
34.	N	[Occasionally with the typhoid people feel a bit under the weather		ON5
35.	T	[OK		
36.	N	[about 48 hours after having it		
37.	T	Right, fine.		
38.	N	Umm...occasionally you get a bit of local reaction Indicates own arm ...alright?		ON5 GC and Th3: is N seeking consent?
39.	T	Yeh, yeh, fine.		
40.	N	Umm...if you're well at the moment, no fever or [anything,		Pb1

41.	T	No, no		
42. 00:02:30	N	I'll give you that vaccine <i>N gets up and walks to fridge</i> and then we can discuss the other bits (00:00:07) tips		ON5
43.		I'm going to have to run and get ...x must have all the...I just won't be a minute, I'll have to run and get the vaccine from upstairs. (<i>N named colleague – not transcribed</i>)		S1; S4;
44.	T	OK		
45.	N	Right?		
46.	T	Yeah, no probs		
47. 00:03:00 00:04:00	N	If you just have a read through that <i>N leaves room, T reads leaflet</i> (00:01:00) N returns and prepares vaccine out of shot Can you remember if you had a sore arm from the hepatitis A?		S6; OO1 Pb5
48.	T	No. I don't remember so it couldn't have been that bad. People do say that you get it, but...		
49.	N	They do. It feels more as if, again, I think it's more with the typhoid, it feels as if somebody's given you a sort of a thump, really...as I say, that tends to last tonight, and maybe tomorrow, and that's it.		ON5
50. 00:04:30	T	Mm-hm. (00:00:17) <i>N is heard rubbing hands together. T fidgets in seat.</i>		
51.	N	Shall I pop it – are you left or right-handed?		GC
52.	T	Right		
53.	N	I'll put it in your left arm then?		
54.	T	Yeh, fine. <i>Rolls left sleeve up.</i>		
55. 00:05:00	N	OK...Just let your arm relax as much as possible...easier said than done when you know what I'm doing... <i>T laughs, N gives injection, T screws up face for a moment.</i> It'll feel a bit cold (00:00:07) OK? That's alright <i>looking at T's arm</i> All done. <i>N places injection tray out of shot and returns to desk</i>		ON5

00:05:30		If I do give you a book... <i>reaches for vaccine record book</i> ...it's useful 'cause then () some information (00:00:05). OK, so it's long haul?		OO1 Pa1
56.	T	[Mm-hm		
57.	N	[Yah?...so obviously just be careful...with umm...don't drink too much alcohol on the flight		ON1 GC: negative phrasing.
58.	T	No, no, no.		
59.	N	Water's best, obviously not too much tea and coffee, anything that dehydrates... <i>N shares leaflet with T</i>		ON1 GC: negative phrasing.
60.	T	Mm-hm		
61.	N	Um, you've not got, nobody's got, you've not got a family history of... deep vein thrombosis [or anything like that?		Pb2
62.	T	[No, no		
63.	N	Keep moving, most of these aircraft have now got exercise [ON1
64. 00:06:00	T	[yeah, () parents got longer...more leg room as well, [so		
65.	N	[so just keep wriggling your feet <i>T laughs</i> OK. Do you know how you'd get hep A and typhoid?		ON1 ON5
66.	T	Insect bites isn't it?		
67.	N	<i>N maintains regular eye contact and is angled towards T while discussing health protection measures, occasionally glancing at leaflet. T looks at leaflet with N.</i> No, it's where sewage has got into the water system [so		
68.	T	[Right, OK.		
69.	N	[so anything that you would, umm.. that could come into contact with dirty water, so things like if you were eating out, not your hotel particularly, but if you were to eat out, and places a bit dodgy, don't have ice in your drinks...		ON4 GC: negative phrasing.
70.	T	Right OK		
71.	N	...clean your teeth with bottled water		ON4

72. 00:06:30	T	Mm-hm		
73.	N	...be careful about salads if you're not quite sure where they've been washed...		ON4
74.	T	Yeh		
75.	N	...anything like that....[it's commonsense		GC
76.	T	[OK.		
77.	N	Obviously <u>that</u> injection is not going to stop you from getting travellers' diarrhoea that you get from <u>bad</u> food -		ON4
78.	T	Yep		
79.	N	-so again just be careful if it looks like something's sat around, don't have it...umm...		ON4 GC: negative phrasing.
80.	T	Mm-hm. I'm careful on that because I had terrible trouble in Bulgaria[
81.	N	[Did you?		
82.	T	[to be honest, it was on the first day actually.		
83. 00:07:00	N	Really? Maybe it was the water then. Also when you <u>buy</u> bottled water make sure it's got a decent seal on it too ()		ON4
84.	T	Yeh		
85.	N	Umm <i>consulting leaflet</i> and it goes on about shellfish and things [S6; ON4
86.	T	[Mm-hm		
87.	N	[make sure it's all fresh, and food's not been left open where flies[ON4
88.	T	[Mm-hm		
89.	N	OK? Ice-cream's another one, you know sometimes when they've had powercuts and it's been [ON4
90.	T	[re-frozen mm-hm		
91. 00:07:30	N	Re-frozen, and that sort of thing...() pasteurised milk, so it's all commonsense, and then there's sun protection. You see, the sun is going to be stronger out there, so even on a cloudy [day		ON4 ON2
92.	T	[Mm, I've gotta be careful because I've got moles [everywhere, so		
93.	N	[yes, so you take full protection,		ON2
94.	T	Yeah		
95.	N	and if you're going to go snorkelling or anything, just be careful, wear an old T-shirt [OK? That sort of thing.		ON2
96.	T	[Yep		

97.	N	() Umm, obviously make sure you've got good insurance		ON3
98.	T	Yep.		
99.	N	Yup? And although there isn't malaria in the area, there's obviously biting insects, so take [some		ON4
100.	T	[is there any		
101.	N	[repellent		
102. 00:08:00	T	[yeh, is there anything you can suggest that we take, I mean you get some of the stuff in Tesco's and[that		ON4
103.	N	[Deet ...yeh		
104.	T	[does it work?		
105.	N	Yeh, well the DEET...there's stuff called DEET and that's the stronger stuff, and we usually recommend that for places where there is malaria		ON4
106.	T	Mm-hm		
107.	N	Umm, but any of the other ones should be OK, I think it's a matter of finding one that suits you, but as I say, they're all much of a muchness, except for the ones that you get the DEET in, but you wouldn't particularly need as it isn't a malarial area		ON4
108.	T	Mm-hm, OK, no.		
109.	N	Because that's obviously extra strong		ON4
110. 00:08:30	T	Mm-hm, OK		
111.	N	Um, things like the Jungle Juice [ON4
112.	T	[Mm-hm, OK.		
113.	N	N looks at form with T And that's not applicable, because you're not really going into a [Pa2
114.	T	[No		
115.	N	OK? Obviously we've talked about the deep vein thrombosis OK?		PA1
116.	T	Yeah, fine.		
117.	N	Umm, as I say, you're OK for your tetanus, so () put this on the form <i>N writes in vaccine record booklet</i>		ON5
118.	T	That's one less then		
119. 00:09:00	N	<i>N laughs</i> Yeh! 'Cause it's well worth it, () you obviously keep an eye on ()		
120.	T	So do I need to have any boosters [for this?		

121.	N	[Well this one, umm, what I, because you've had the initial one, this one is your booster		ON5
122.	T	Is it? That's [OK		
123.	N	[twenty years from this point, OK? And umm, it could be longer, umm, they're still researching that bit, so they only recently changed it last year, umm from ten to twenty years		ON5
124.	T	OK, fine.		
125. 00:09:30	N	And with your typhoid, it's, it lasts only three years...		ON5
126.	T	Right, OK		
127. 00:10:00	N	So it's all written here, <i>N writes in vaccine record booklet, consults computer screen and talks mostly to self as she completes the record</i> so there's hep A...and your typhoid...last had... <i>looks at computer</i> tetanus and diphtheria...fifteenth of the eighth two thousand and two...so that's ten years from that point...OK. Alright?		S3,4,5,6 ON5
128.	T	[Yeah, brilliant.		
129.	N	[Alright, OK. Any questions you wanted to ask?		GC Closed question.
130.	T	No. No, that's all, that's fine.		
131.	N	OK?		GC
132.	T	Yep.		
133.	N	Umm, normally we say when we've given a vaccine, just hang around for ten minutes after, obviously we've talked a bit[GC
134.	T	[OK		
135.	N	So umm...just another five minutes		GC
136.	T	Yeh, yeh, fine, yes.		
137.	N	OK? And have a good holiday. <i>N hands over vaccine record and leaflet, and smiles for the first time.</i>		GC
138.	T	Yeah, it's the sister-in-law's wedding, so, er, it should be, it's a group of us going out there, so...		
139.	N	Great!		GC
140.	T	Thanks, thanks a [lot.		
141. 00:10:34	N	[OK. Bye-bye.		S1=10:34

Appendix 7: Travellers' diary (method four).

Text for traveller's diary to be produced as a passport-size booklet

Front cover:

Travel Health Diary

Participant Number:

Page 1:

Thank you for agreeing to keep a diary about your health while you are abroad.

Please take a few moments each day to record *any* health problems you experience while you are away. These include new problems (for example, sunburn, diarrhoea, insect bites), and ones that you sometimes have at home (for example, recurrence of backache).

Please write down what you did about that problem. Write "No problems today" if that is the case. Page 2 shows an example of a diary entry.

You should also record any *risks* to your health or safety that you become aware of (for example, if you noticed a bald tyre on your hire car). Please write down what you did about that risk.

Please complete your entries as soon as possible after they occur, and post this diary in the stamped, addressed envelope to the researcher when you return to the UK. Thank you.

Page 2: Example diary entry

Please describe your health problem or risk:

I woke up with 7 mosquito bites on my arms and chest this morning.

Was this a new problem for you? Please circle Yes or No:

Yes / No

What did you do to avoid, treat or manage this problem or risk?

Didn't unroll the mosquito net last night, or apply insect repellent. Put cream onto bites.

Page 3: repeated on pages 4 - 17

Please describe your health problem or risk:

(space)

Was this a new problem for you? Please circle Yes or No:

Yes / No

What did you do to avoid, treat or manage this problem or risk?

(space)

Page 18:

Thank you for recording your travel health experiences, your participation in this research is greatly appreciated and your diary will be kept confidential.

Please post it in the stamped, addressed envelope when you return to the UK, and the researcher will contact you as agreed.

Appendix 8: Travellers' interview schedule (method five).

Introductory phase	<ul style="list-style-type: none"> • Check this is the correct participant and that it is convenient to speak to them now. • Remind them of the purpose and procedure, that it is being recorded, and of their confidentiality and anonymity. • Ask if they have any queries or concerns at this stage. • Confirm that their consent is still valid.
Ice-breaking phase	<ul style="list-style-type: none"> • Open question <i>So how was your trip?</i> • Note any cues to discuss at an appropriate point during the interview.
Main questioning phase (diary)	<ul style="list-style-type: none"> • <i>Thank you for sending me your health diary. I see you wrote about x – could you tell me more about that?</i> • Use an open question as above for each of the issues raised in their diary
(consultation)	<ul style="list-style-type: none"> • <i>The nurse mentioned x in the consultation – do you remember?</i> • <i>Was it the nurse's advice that led you to deal with x in that way?</i> • <i>So you didn't follow that advice – what were your reasons?</i> • <i>The nurse talked about x in the consultation –was that useful or not?</i> • <i>You were advised to take x antimalarial tablets – did you buy them? Did you take them?</i> • <i>You received some leaflets in the consultation – how useful were they?</i> • <i>You were given some websites/telephone advice services in the consultation – did you use them? How useful were they?</i> • <i>Looking back at your consultation – what was the most useful part, in terms of protecting your health abroad?</i> • <i>Were there any aspects about your consultation that were unhelpful?</i> • <i>Following your consultation, what did <u>you</u> think were going to be the main risks to your health while abroad? Do you still think those are correct?</i>
(not in consultation)	<ul style="list-style-type: none"> • <i>What caused x health problem?</i> • <i>Was there anything that could have prevented x?</i> • <i>You managed x by doing y – this wasn't covered in your consultation – how did you know what to do?</i> • <i>Where/how did you learn that?</i> • <i>Did you use any other sources of health information before you went away?</i> • <i>Did you experience any problems because of:</i> <ul style="list-style-type: none"> - <i>Your existing health problem/chronic illness?</i> - <i>The journey/mode of travel? And travelling around?</i> - <i>Heat/sun/cold/altitude exposure?</i> - <i>Food and water?</i> - <i>The behaviour of other people?</i> - <i>Animals? Mosquitoes?</i> - <i>The activities/hobbies you engaged in?</i> - <i>Alcohol or drugs or your medication?</i> - <i>Sexual contacts?</i> - <i>Any health care you received out there?</i> - <i>Did you take out health insurance for this trip?</i> <p>NB: Questions used selectively depending on their consultation, destination and responses in diary and early part of interview.</p>
Clarification phase	<ul style="list-style-type: none"> • <i>Just to summarise x...is that correct?</i> • <i>We've talked about xyz – is there anything else you'd like to discuss?</i> • <i>Is there anything you would like to ask me?</i>
Closure phase	<ul style="list-style-type: none"> • <i>This has been really helpful – thank you for sharing your experiences, and for your time.</i> <p>Inform participant of follow-up arrangements and that a book token will be sent to them.</p>

Appendix 9: Focus group interview schedule (method six).

Welcome and introductions.

Refreshments provided. Consent and ground rules established.



Icebreaker.

Participants asked to talk a little about themselves, their work and involvement in travel health.



Interview schedule

1. Topic 1 – what does a pre-travel health consultation achieve? *Probe group for evidence of aims and effectiveness.*
2. Topic 2 – what are the challenges or difficulties of a pre-travel health consultation? If it was up to you, how would you overcome those? *Methods one (documentary analysis) and two (audit of structures) identified the sheer volume, breadth and depth of topics to be addressed, together with difficulties such as time, the availability of equipment, and access to evidence-based sources of information. The purpose of this topic is to check validity and look for solutions.*
3. Topic 3 – here are three descriptions of how different nurses approach their pre-travel health consultations. What are your thoughts on these? *(handout provided: see Appendix 10; these were identified from method three video analysis) Do they recognise these? What are your opinions?*
4. Topic 4 – one of the findings emerging from the research is that it is easy to miss finding out what the traveller already knows. What if the nurse was prompted to ask three main questions –
 - *Tell me about this trip? (and any supplementary questions to establish assessment of journey risks).*
 - *What do you think are the main risks to you on this trip? (to ascertain travellers' knowledge and concerns; then to ask any supplementary questions to establish assessment of current health status and personal history and risks).*
 - *Here are some health topics of relevance to you – are there any you would like to ask about now?*
5. Topic 5 – eight percent of travellers need medical advice or intervention as a result of their travels. What services are available to travellers during travel or on return home?
6. Topic 6 – what would be the advantages and disadvantages of a few surgeries developing travel health services? *Probe advantages/disadvantages for staff and travellers?*
7. Topic 7 – could agencies outside of general practice have a greater role in pre-travel health messages or services? *Probe at PCT level, Govt. level, travel companies, NHS v. private provision.*
8. Topic 8 – let's pull together all the ideas shared here tonight for a better travel health service – what would it look like? *Probe for consensus and dissension.*
9. Anything else?



Closure.

Participants were thanked and a small gift was provided.

Appendix 10: Discussion tool: Three different styles of consultation (method six).

The Kitchen Sink Consultation

- It's quite a time-consuming consultation.
- The nurse does most of the talking.
- The nurse attempts to cover everything – vaccines, insurance, sun, food and water hygiene, sex, insect bites, etc etc.

The M and M Consultation

(Medical and Minimal)

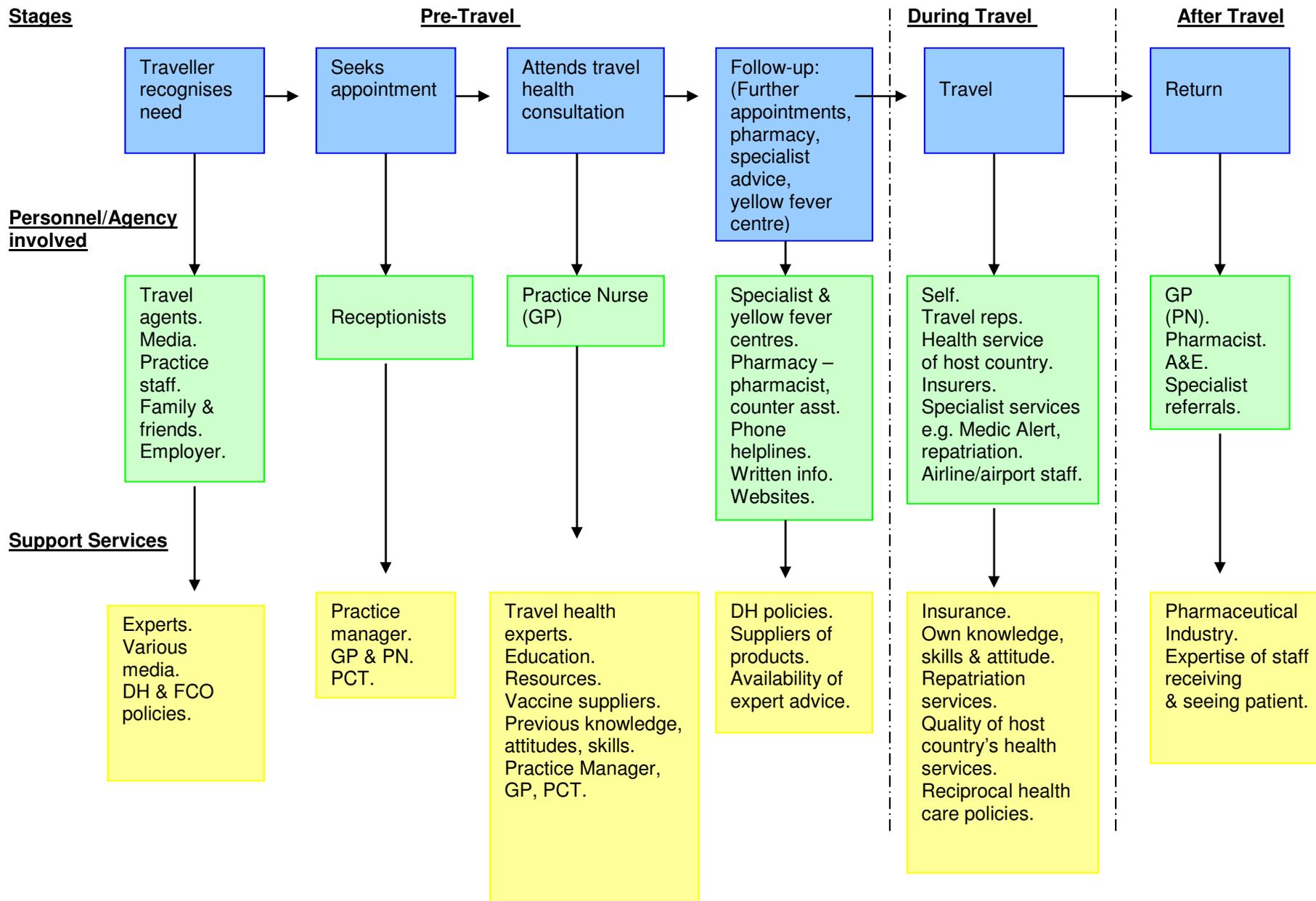
- It's a shorter consultation.
- The nurse is in charge.
- Vaccines, malaria and infections are prioritised.
- There's not much time for anything else – if there is other advice it's very brief or in a leaflet.

The ICATPI Consultation

(Individually centred assessment, tailored, prioritised interventions)

- The length is somewhere between the other two.
- The time spent talking is more evenly shared between the traveller and the nurse.
- The traveller is given opportunities to tell the nurse what she needs to know – but she will ask occasional questions to clarify or 'top up' her understanding of this person's needs.
- Vaccines, malaria and infections are addressed.
- But based on the assessment, risks are prioritised and the main ones discussed.
- Leaflets and other sources of information for the traveller are provided.

Appendix 11: Services pathway for travellers.



Appendix 12: Research output and dissemination between 2005 and 2010.

Published articles

1. Willcox, A; Ellis, M. and Allen, J. (2006) Travel health: a practical approach to post-travel consultations. *Primary Health Care*. 16,3, 43-50.
2. Willcox, A. (2006) What counts for "quality" in the pre-travel health consultation? *British Travel Health Association Journal* April, Vol. 7; 11-13.
3. Willcox, A. and Munson, E. (2007) The emergence of the nursing consultation. *Practice Nursing*. Vol 18, No 8, 409-412.
4. Munson, E. and Willcox, A. (2007) Applying the Cambridge-Calgary model. *Practice Nursing*. Vol 18, No 9, 464-468.
5. Willcox, A. and Munson, E. (2007) The provision of advice for travel health. *Practice Nursing*. Vol 18, No 10, 518-521.
6. Willcox, A. and Hayward, M. (2008) A guide to travel health. *Emergency Nurse*, 16(4): 30 – 37.
7. Willcox, A. (2008) Water Hygiene. *Practice Nursing*. 19(8):390-393.
8. Willcox, A. (2008) Sun Exposure. *Practice Nursing*. 19(9):449-452.
9. Willcox, A. (2009) Sex Tourism. *Practice Nursing*. 20(5):251-255.
10. Willcox, A. (2009) Nursing participation in travel medicine. *Practice Nursing*. 20(9):434.
11. Willcox, A. and Cox, B.(2009) Respiratory risks. *Practice Nursing*. 20(9):450,452-3.

Online publications

1. Willcox, A. (2008) Vaccinating babies and children. [online] *Learning Zone*. Clinical Update. Royal College of Nursing (access for members only). <http://www.rcn.org.uk/development/learning/learningzone>
2. Willcox, A. (2007) Introduction to travel health. [online] *Learning Zone*. 5 Minute Learning.. Royal College of Nursing (access for members only). <http://www.rcn.org.uk/development/learning/learningzone>

Conference presentations

1. South West Association of the Society for Academic Primary Care March 2007, Devon. Poster presentation: *Developing the pre-travel consultation: what models and skills do nurses use?* Willcox, A; Adams, A.E; Dale, J.
2. International Society of Travel Medicine. May 2009, Poster presentation: How Safe is the Pre-travel Health Consultation? Issues for Travellers and Practitioners. Willcox, A; Adams, A.E; Dale, J.
3. International Society of Travel Medicine. May 2009, Budapest. Oral presentation: What does the pre-travel consultation look like? New

- methods to understand travel consultations. Willcox, A; Adams, A.E; Dale, J.
4. MASTA conference. December 2009, Royal College of Physicians, London. Oral presentation: *Maximum quality in minimum time*.
 5. Invited speaker (by Dr. Dominique Tessier), travel medicine conference, Colloque Bleu, santé des voyageurs internationaux, Montreal, 5th – 7th May, 2010. Presentation one: paper, *Improving your skills in travel medicine consultations*. Presentation two: interactive workshops, *What does a pre-travel consultation look like? Innovative technology to understand consultation dynamics*.
 6. RCN annual travel medicine conference. September 2010, London. *Catastrophic consultations: how to avoid them*.

Awards

1. British Travel Health Association research grant, 2007.
2. International Society of Travel Medicine research grant (the first awarded to a nurse), 2007.
3. International Society of Travel Medicine conference, Budapest May 2009. Second prize received for best oral presentation of research.
4. Membership of the Faculty of Travel Medicine, Royal College of Physicians and Surgeons (Glasgow), July 2009.